

Pakistan Central Cotton Committee  
Directorate of Agriculture Research  
2018- NCVT Field Trial Results

Annexure-I: Average Seed-Cotton Yield (kg/hectare) of Set-A in Descending order on Pakistan basis (All Bt lines\*\*)

| Sr.                          | Code         | Denomination of Strains/Lines | Punjab |        |         |         |        |        |         | Sindh   |        |          |         |         | Balochistan |         |         |             | KPK       | *Pakistan Average |
|------------------------------|--------------|-------------------------------|--------|--------|---------|---------|--------|--------|---------|---------|--------|----------|---------|---------|-------------|---------|---------|-------------|-----------|-------------------|
|                              |              |                               | Zone-6 | Zone-7 | Zone-2  | Zone-8  | Zone-3 | Zone-1 | 6-Zones | Zone-10 | Zone-9 | Zone-11  | Zone-12 | 4-Zones | Zone-13     | Zone-14 | Zone-15 | 3-Zones     | Zone-16   |                   |
|                              |              |                               | CCRI   | CRS    | CRS     | CRS     | CRS    | NIBGE  | Punjab  | CCRI    | CRS    | CRS      | NIA     | Sindh   | CRS         | CRS     | NAAL    | Balochistan | CRS       |                   |
|                              |              |                               | Multan | B.pur  | Sahiwal | Khanpur | Vehari | F.abad | Average | Sakrand | Ghotki | M.P.Khas | T.Jam   | Average | Lasbella    | Sibbi   | Khuzdar | Average     | D.I. Khan |                   |
| 1                            | 2            | 3                             | 4      | 5      | 6       | 7       | 8      | 9      | 10      | 11      | 12     | 13       | 14      | 15      | 16          | 17      | 18      | 19          | 20        | 21                |
| 1                            | PC-1809      | CRIS-510 (Std-1)              | ~      | ~      | ~       | ~       | ~      | ~      | ~       | 3063    | 3228   | 2296     | 3003    | 2898    | 2393        | 2613    | 3710    | 2905        | ~         | 2901              |
| 2                            | PC-1803      | CRIS-613                      | 2654   | 1974   | 576     | 3829    | 2368   | 1148   | 2092    | 3267    | 4386   | 2296     | 3405    | 3338    | 3231        | 3323    | 3231    | 3262        | 1758      | 2675              |
| 3                            | PC-1810      | NIAB-818                      | 2096   | 1605   | 873     | 3880    | 2906   | 1798   | 2193    | 3016    | 3199   | 1005     | 3868    | 2772    | 2752        | 3045    | 3949    | 3249        | 2191      | 2585              |
| 4                            | PC-1807      | CRIS-552                      | 2634   | 2414   | 706     | 4382    | 2296   | 994    | 2238    | 3075    | 3975   | 1579     | 3407    | 3009    | 1795        | 3169    | 3351    | 2771        | 1891      | 2548              |
| 5                            | PC-1801      | CIM-717                       | 2541   | 1511   | 1154    | 2903    | 1830   | 2033   | 1995    | 1771    | 4255   | 1866     | 2007    | 2475    | 4188        | 2910    | 4069    | 3722        | 2009      | 2503              |
| 6                            | PC-1808      | NIAB-191                      | 2048   | 2176   | 1188    | 3438    | 2386   | 1671   | 2151    | 3339    | 3345   | 2009     | 3121    | 2953    | 2154        | 2482    | 2872    | 2503        | 2269      | 2464              |
| 7                            | PC-1802      | Cyto-225                      | 2034   | 1843   | 1038    | 4110    | 771    | 1579   | 1896    | 2010    | 4459   | 1866     | 2077    | 2603    | 4069        | 3087    | 3949    | 3701        | 1587      | 2463              |
| 8                            | PC-1806      | GS-Ali-7                      | 1815   | 1475   | 618     | 3396    | 2081   | 1232   | 1770    | 2657    | 4010   | 2296     | 2490    | 2863    | 2872        | 3030    | 3829    | 3244        | 1518      | 2380              |
| 9                            | PC-1804      | TH-88/11                      | 1614   | 1534   | 698     | 3083    | 1830   | 1375   | 1689    | 2142    | 2795   | 2440     | 2702    | 2520    | 2154        | 3410    | 3231    | 2932        | 1931      | 2210              |
| 10                           | PC-1811      | GS-Ali-9                      | 980    | 1213   | 593     | 2412    | 1058   | 1211   | 1245    | 1927    | 2576   | 2296     | 2379    | 2294    | 2752        | 3197    | 4308    | 3419        | 2057      | 2068              |
| 11                           | PC-1805      | CIM-620 (Std-2)               | 1791   | 1760   | 630     | 3452    | 1345   | 1641   | 1770    | ~       | ~      | ~        | ~       | ~       | ~           | ~       | ~       | ~           | 1695      | 1759              |
|                              |              | Average:                      | 2021   | 1751   | 807     | 3488    | 1887   | 1468   | 1904    | 2627    | 3623   | 1995     | 2846    | 2772    | 2836        | 3027    | 3650    | 3171        | 1891      | 2414              |
| Statistical Analysis Results |              |                               |        |        |         |         |        |        |         |         |        |          |         |         |             |         |         |             |           |                   |
| 1                            | CD 5%        |                               | 106    | 602    | 201     | 642     | 494    | 246    | '''     | 95      | 406    | 404      | 715     | '''     | 1058        | 410     | 570     | '''         | 222       | '''               |
| 2                            | CD 1%        |                               | 145    | 824    | 275     | 880     | 677    | 336    | '''     | 131     | 556    | 554      | 979     | '''     | 1450        | 562     | 780     | '''         | 303       | '''               |
| 3                            | Significance |                               | **     | *      | **      | **      | **     | **     | '''     | **      | **     | **       | **      | '''     | **          | **      | **      | '''         | **        | '''               |
| 4                            | CV %         |                               | 3      | 20     | 15      | 11      | 15     | 10     | '''     | 2       | 7      | 12       | 15      | '''     | 22          | 8       | 9       | '''         | 7         | ****              |

\* "Pakistan-Average" has been worked out as average of all 14 locations for more accuracy.

Note: Errors and Omissions are acceptable.

\*\*Whole Set-A entries were claimed as Non-Bt but all of them , including both Standards, were detected as Bt with low to average Trait Purity and Expression.

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Annexure-II Average Seed-Cotton Yield (kg/hectare) of Set-B in Descending order on Pakistan basis (All Bt lines)

| Sr.                          | Code         | Denomination of Strains/Lines | Punjab |        |         |         |        |        |         | Sindh   |        |          |         |         | Balochistan |         |         |             | KPK       | *Pakistan Average |
|------------------------------|--------------|-------------------------------|--------|--------|---------|---------|--------|--------|---------|---------|--------|----------|---------|---------|-------------|---------|---------|-------------|-----------|-------------------|
|                              |              |                               | Zone-6 | Zone-7 | Zone-2  | Zone-8  | Zone-3 | Zone-1 | 6-Zones | Zone-10 | Zone-9 | Zone-11  | Zone-12 | 4-Zones | Zone-13     | Zone-14 | Zone-15 | 3-Zones     | Zone-16   |                   |
|                              |              |                               | CCRI   | CRS    | CRS     | CRS     | CRS    | NIBGE  | Punjab  | CCRI    | CRS    | CRS      | NIA     | Sindh   | CRS         | CRS     | NAAL    | Balochistan | CRS       |                   |
|                              |              |                               | Multan | B.pur  | Sahiwal | Khanpur | Vehari | F.abad | Average | Sakrand | Ghotki | M.P.Khas | T.Jam   | Average | Lasbella    | Sibbi   | Khuzdar | Average     | D.I. Khan |                   |
| 1                            | 2            | 3                             | 4      | 5      | 6       | 7       | 8      | 9      | 10      | 11      | 12     | 13       | 14      | 15      | 16          | 17      | 18      | 19          | 20        | 21                |
| 1                            | PC-1826      | GH-Haadi                      | 3254   | 2428   | 1299    | 3689    | 2440   | 3588   | 2783    | 3135    | 3811   | 3301     | 2834    | 3270    | 4308        | 2987    | 4308    | 3867        | 1958      | 3096              |
| 2                            | PC-1828      | ICI-2121                      | 3010   | 2308   | 1305    | 3662    | 2260   | 3947   | 2749    | 3279    | 4189   | 3731     | 3638    | 3709    | 2872        | 2792    | 2992    | 2885        | 2240      | 3016              |
| 3                            | PC-1830      | IR-NIBGE-11(Mac-7)            | 3511   | 2415   | 1877    | 4934    | 2601   | 3564   | 3150    | 1843    | 1671   | 3157     | 2481    | 2288    | 2872        | 3024    | 4428    | 3441        | 2324      | 2907              |
| 4                            | PC-1817      | BS-18                         | 3487   | 2308   | 1384    | 3742    | 2727   | 3707   | 2893    | 2190    | 2061   | 2296     | 2519    | 2266    | 4188        | 3080    | 3949    | 3739        | 2076      | 2837              |
| 5                            | PC-1825      | FH-490                        | 3572   | 2176   | 1035    | 3676    | 2440   | 2727   | 2604    | 2369    | 3483   | 3301     | 2784    | 2984    | 3470        | 2831    | 3351    | 3217        | 2211      | 2816              |
| 6                            | PC-1814      | Auriga-216                    | 3290   | 2176   | 1008    | 3401    | 2565   | 3014   | 2576    | 2525    | 2430   | 2870     | 2808    | 2658    | 3949        | 3061    | 3829    | 3613        | 2434      | 2811              |
| 7                            | PC-1836      | NIAB-898                      | 3028   | 2415   | 1035    | 3173    | 2404   | 3588   | 2607    | 3087    | 3023   | 2296     | 3222    | 2907    | 2992        | 2947    | 4069    | 3336        | 2051      | 2809              |
| 8                            | PC-1827      | GH-Mubarak                    | 3480   | 2123   | 1026    | 3521    | 2260   | 3349   | 2627    | 3016    | 2737   | 2296     | 3064    | 2778    | 3231        | 2864    | 3590    | 3228        | 1982      | 2753              |
| 9                            | PC-1834      | MNH-1026                      | 3315   | 2454   | 1152    | 3511    | 2637   | 3420   | 2748    | 2932    | 1943   | 2583     | 3104    | 2640    | 2513        | 2941    | 3829    | 3094        | 2030      | 2740              |
| 10                           | PC-1838      | RH-Afnan                      | 3233   | 2282   | 778     | 3793    | 2440   | 3947   | 2745    | 2262    | 2686   | 1866     | 2382    | 2299    | 3351        | 2869    | 4045    | 3422        | 1910      | 2703              |
| 11                           | PC-1819      | Bt. CIM-663                   | 3356   | 2560   | 1317    | 3735    | 1884   | 2798   | 2608    | 2118    | 1789   | 1866     | 2879    | 2163    | 3949        | 3143    | 4069    | 3720        | 2223      | 2692              |
| 12                           | PC-1820      | CIM-602 (Bt Std-1)            | 2834   | 2030   | 1024    | 3286    | 2260   | 3803   | 2540    | 2692    | 2172   | 2583     | 3104    | 2638    | 3111        | 3085    | 3351    | 3182        | 2129      | 2676              |
| 13                           | PC-1818      | Bt. CIM-343                   | 3360   | 2202   | 1445    | 3395    | 2888   | 2392   | 2614    | 2262    | 1866   | 1866     | 3355    | 2337    | 4069        | 2986    | 3470    | 3508        | 1863      | 2673              |
| 14                           | PC-1832      | KZ-125                        | 3012   | 1910   | 1188    | 3266    | 2584   | 3085   | 2507    | 2561    | 1955   | 2870     | 2592    | 2495    | 3231        | 2956    | 3949    | 3378        | 2114      | 2662              |
| 15                           | PC-1813      | AA-933                        | 2197   | 2030   | 1080    | 3165    | 1686   | 3851   | 2335    | 2549    | 2924   | 2440     | 3071    | 2746    | 2872        | 3305    | 3590    | 3255        | 2492      | 2661              |
| 16                           | PC-1833      | MNH-1020                      | 2943   | 2494   | 1350    | 3300    | 2225   | 3253   | 2594    | 2501    | 1912   | 3157     | 2434    | 2501    | 2992        | 2876    | 3231    | 3033        | 2139      | 2629              |
| 17                           | PC-1823      | Evyol-148                     | 3139   | 2308   | 1314    | 3157    | 2243   | 2918   | 2513    | 2321    | 2924   | 2153     | 2535    | 2483    | 3351        | 2665    | 3470    | 3162        | 1815      | 2594              |
| 18                           | PC-1816      | BH-221                        | 2665   | 2468   | 864     | 3477    | 2242   | 3062   | 2463    | 1735    | 2235   | 2440     | 3236    | 2411    | 3470        | 2933    | 3470    | 3291        | 1970      | 2591              |
| 19                           | PC-1812      | Bahar-07                      | 2242   | 1990   | 1458    | 2752    | 1884   | 3133   | 2243    | 2597    | 2404   | 2009     | 3435    | 2611    | 3231        | 2777    | 4069    | 3359        | 2123      | 2579              |
| 20                           | PC-1824      | FH-444                        | 2731   | 2096   | 1233    | 3417    | 1884   | 3134   | 2416    | 2704    | 2084   | 2009     | 2651    | 2362    | 3111        | 2996    | 3949    | 3352        | 1982      | 2570              |
| 21                           | PC-1837      | NS-191                        | 3208   | 2123   | 868     | 3144    | 2548   | 3181   | 2512    | 2393    | 1812   | 2009     | 3410    | 2406    | 2872        | 2980    | 3231    | 3028        | 1958      | 2553              |
| 22                           | PC-1815      | Bahar-2017                    | 3021   | 2056   | 863     | 3553    | 2296   | 2942   | 2455    | 2094    | 2507   | 1579     | 2576    | 2189    | 2872        | 3006    | 4069    | 3315        | 1934      | 2526              |
| 23                           | PC-1822      | Cyto-515                      | 3215   | 2361   | 1170    | 3277    | 2063   | 2894   | 2497    | 2118    | 2043   | 2009     | 2634    | 2201    | 3231        | 3007    | 3470    | 3236        | 1874      | 2526              |
| 24                           | PC-1829      | IUB-13 (Bt Std-2)             | 2675   | 2109   | 1170    | 3390    | 2207   | 2583   | 2356    | 2094    | 1738   | 3731     | 2546    | 2527    | 2633        | 2984    | 3590    | 3069        | 1910      | 2526              |
| 25                           | PC-1831      | IUB-69                        | 2269   | 2083   | 1008    | 2889    | 2009   | 2583   | 2140    | 1627    | 1202   | 2009     | 2059    | 1725    | 3949        | 2992    | 4069    | 3670        | 2030      | 2341              |
| 26                           | PC-1821      | BZU-05                        | 2606   | 2614   | 954     | 3095    | 2010   | 2057   | 2223    | 1460    | 1473   | 861      | 2745    | 1635    | 3590        | 2570    | 3590    | 3250        | 1779      | 2243              |
| 27                           | PC-1835      | NIA-85                        | 1668   | 1366   | 814     | 1904    | 1184   | 2009   | 1491    | 1855    | 528    | 1292     | 2404    | 1519    | 3231        | 3235    | 3710    | 3392        | 1869      | 1933              |
|                              |              | Average:                      | 2975   | 2218   | 1149    | 3382    | 2254   | 3131   | 2518    | 2382    | 2282   | 2392     | 2833    | 2472    | 3315        | 2959    | 3731    | 3335        | 2053      | 2647              |
| Statistical Analysis Results |              |                               |        |        |         |         |        |        |         |         |        |          |         |         |             |         |         |             |           |                   |
| 1                            | CD 5%        |                               | 467    | 351    | 196     | 966     | 432    | 874    | '''     | 170     | 349    | 632      | 427     | '''     | 698         | 485     | 433     | '''         | 271       | '''               |
| 2                            | CD 1%        |                               | 623    | 468    | 261     | 1287    | 576    | 1165   | '''     | 227     | 464    | 842      | 569     | '''     | 931         | 646     | 577     | '''         | 361       | '''               |
| 3                            | Significance |                               | **     | **     | **      | *       | **     | **     | '''     | **      | **     | **       | **      | '''     | **          | NS      | **      | '''         | **        | '''               |
| 4                            | CV %         |                               | 10     | 10     | 10      | 17      | 12     | 17     | '''     | 4       | 9      | 16       | 9       | '''     | 13          | 10      | 7       | '''         | 8         | '''               |

\* "Pakistan-Average" has been worked out as average of all 14 locations for more accuracy.  
Note: Errors and Omissions are acceptable.

  
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Annexure-III: Average Seed-Cotton Yield (kg/hectare) of Set-C in Descending order on Pakistan basis (All Bt lines)

| Sr.                          | Code         | Denomination of Strains/Lines | Punjab |        |         |         |        |        |         | Sindh   |        |          |         |         | Balochistan |         |         |             | KPK       | *Pakistan Average |
|------------------------------|--------------|-------------------------------|--------|--------|---------|---------|--------|--------|---------|---------|--------|----------|---------|---------|-------------|---------|---------|-------------|-----------|-------------------|
|                              |              |                               | Zone-6 | Zone-7 | Zone-2  | Zone-8  | Zone-3 | Zone-1 | 6-Zones | Zone-10 | Zone-9 | Zone-11  | Zone-12 | 4-Zones | Zone-13     | Zone-14 | Zone-15 | 3-Zones     | Zone-16   |                   |
|                              |              |                               | CCRI   | CRS    | CRS     | CRS     | CRS    | NIBGE  | Punjab  | CCRI    | CRS    | CRS      | ARI     | Sindh   | CRS         | CRS     | NAAL    | Balochistan | CRS       |                   |
|                              |              |                               | Multan | B.pur  | Sahiwal | Khanpur | Vehari | F.abad | Average | Sakrand | Ghotki | M.P.Khas | T.Jam   | Average | Lasbella    | Sibbi   | Khuzdar | Average     | D.I. Khan |                   |
| 1                            | 2            | 3                             | 4      | 5      | 6       | 7       | 8      | 9      | 10      | 11      | 12     | 13       | 14      | 15      | 16          | 17      | 18      | 19          | 20        | 21                |
| 1                            | PC-1852      | VH-383                        | 2995   | 2334   | 1638    | 3726    | 2648   | 1721   | 2510    | 3434    | 3999   | 2296     | 1632    | 2840    | 3707        | 2956    | 3947    | 3537        | 2079      | 2794              |
| 2                            | PC-1851      | VH-189                        | 3102   | 1807   | 1161    | 3906    | 2616   | 1847   | 2407    | 3135    | 3668   | 2727     | 1792    | 2830    | 3349        | 2967    | 4066    | 3461        | 2007      | 2725              |
| 3                            | PC-1861      | Tahafuz-10 (CII)              | 2636   | 1699   | 1728    | 3472    | 2045   | 2080   | 2277    | 2968    | 3108   | 2870     | 2036    | 2745    | 3947        | 2542    | 3947    | 3479        | 2043      | 2651              |
| 4                            | PC-1854      | Weal AG-6                     | 3425   | 2046   | 1215    | 3854    | 2565   | 1506   | 2435    | 3913    | 2612   | 2440     | 1989    | 2738    | 2631        | 3265    | 3468    | 3121        | 2091      | 2644              |
| 5                            | PC-1849      | Tassco-902                    | 2636   | 1520   | 1287    | 3473    | 2243   | 1955   | 2186    | 2621    | 4171   | 2727     | 1821    | 2835    | 3827        | 2844    | 3947    | 3539        | 1900      | 2641              |
| 6                            | PC-1855      | Badar-1 (CII)                 | 3031   | 2154   | 981     | 3909    | 1848   | 2116   | 2340    | 2728    | 3082   | 3157     | 1749    | 2679    | 3588        | 2492    | 4066    | 3382        | 2043      | 2639              |
| 7                            | PC-1868      | CII-TJ-King                   | 3318   | 1795   | 1602    | 3779    | 2206   | 2026   | 2454    | 2764    | 2747   | 2296     | 2045    | 2463    | 2272        | 2398    | 4305    | 2992        | 2198      | 2554              |
| 8                            | PC-1839      | RH-Manthar                    | 2367   | 1986   | 1192    | 4188    | 2189   | 2044   | 2328    | 2465    | 1002   | 3731     | 1674    | 2218    | 3229        | 2868    | 4186    | 3428        | 2425      | 2539              |
| 9                            | PC-1840      | Sahara-210                    | 2529   | 1245   | 855     | 3836    | 2243   | 1757   | 2077    | 2968    | 2310   | 3301     | 1722    | 2575    | 3110        | 3409    | 3468    | 3329        | 2115      | 2490              |
| 10                           | PC-1842      | Shaheen-16                    | 2941   | 2118   | 1449    | 3462    | 2260   | 1686   | 2319    | 2896    | 2372   | 2009     | 1973    | 2313    | 3229        | 2748    | 3588    | 3188        | 1900      | 2474              |
| 11                           | PC-1847      | CIM-602 (Bt Std-1)            | 2708   | 1316   | 1485    | 3368    | 2225   | 1937   | 2173    | 2776    | 3182   | 2153     | 1570    | 2420    | 3229        | 2905    | 3588    | 3241        | 2055      | 2464              |
| 12                           | PC-1848      | Suncrop-6                     | 3120   | 1556   | 1167    | 3891    | 2242   | 1560   | 2256    | 2070    | 2705   | 2440     | 1579    | 2198    | 3468        | 2997    | 3468    | 3311        | 1936      | 2443              |
| 13                           | PC-1866      | CII-Suncrop                   | 3102   | 2477   | 1386    | 4094    | 1974   | 1883   | 2486    | 2034    | 2120   | 2153     | 1552    | 1965    | 2870        | 2476    | 3947    | 3098        | 2079      | 2439              |
| 14                           | PC-1853      | Weal AG-5                     | 2475   | 1711   | 897     | 3015    | 2045   | 1560   | 1951    | 1927    | 3037   | 2440     | 1615    | 2255    | 3827        | 3208    | 3947    | 3660        | 2270      | 2427              |
| 15                           | PC-1843      | Sitara-16                     | 2511   | 1544   | 1053    | 3564    | 2117   | 1757   | 2091    | 2645    | 2295   | 2870     | 1964    | 2443    | 2870        | 3103    | 3588    | 3187        | 2091      | 2427              |
| 16                           | PC-1841      | Shahab-7                      | 2887   | 1723   | 900     | 3371    | 1668   | 1829   | 2063    | 2405    | 1662   | 2727     | 1731    | 2131    | 3947        | 2910    | 3947    | 3601        | 2043      | 2411              |
| 17                           | PC-1856      | IUB-13 (Bt Std-2)             | 2977   | 1663   | 1242    | 3583    | 2386   | 1399   | 2208    | 1819    | 2593   | 2870     | 1310    | 2148    | 3349        | 2687    | 3827    | 3287        | 2031      | 2410              |
| 18                           | PC-1859      | NU-21 (CII)                   | 2654   | 1400   | 1188    | 3661    | 2207   | 1578   | 2115    | 2070    | 2055   | 2009     | 1677    | 1953    | 4186        | 2785    | 3827    | 3599        | 2091      | 2385              |
| 19                           | PC-1858      | CII-CEMB-101                  | 2618   | 2130   | 1251    | 3397    | 1848   | 1686   | 2155    | 1819    | 1814   | 2296     | 2081    | 2002    | 3947        | 2371    | 3947    | 3421        | 2079      | 2377              |
| 20                           | PC-1857      | CII-CEMB-100                  | 2582   | 1986   | 945     | 3698    | 1884   | 2080   | 2196    | 1855    | 2085   | 2009     | 2108    | 2014    | 2392        | 2684    | 3947    | 3008        | 2067      | 2309              |
| 21                           | PC-1865      | CII-ICI-2222                  | 2923   | 1855   | 936     | 3712    | 1866   | 1668   | 2160    | 1699    | 2045   | 2296     | 1283    | 1831    | 3110        | 2764    | 4066    | 3313        | 1959      | 2299              |
| 22                           | PC-1844      | SLH-19                        | 2797   | 1424   | 857     | 3388    | 1507   | 1721   | 1949    | 2003    | 1179   | 2440     | 1345    | 1742    | 3947        | 2833    | 4425    | 3735        | 2055      | 2280              |
| 23                           | PC-1850      | Tipu-9                        | 1704   | 1101   | 1512    | 2632    | 1507   | 1219   | 1612    | 2716    | 3564   | 2009     | 1624    | 2478    | 3468        | 3130    | 3588    | 3396        | 2079      | 2275              |
| 24                           | PC-1846      | Suncrop-5                     | 2744   | 2142   | 1179    | 3331    | 1345   | 1829   | 2095    | 1556    | 2763   | 1579     | 1381    | 1820    | 2990        | 3154    | 3947    | 3364        | 1912      | 2275              |
| 25                           | PC-1867      | CII-Tahafuz-12                | 2865   | 1604   | 900     | 3430    | 1309   | 1793   | 1984    | 1221    | 4091   | 3157     | 1256    | 2431    | 2512        | 2768    | 3349    | 2876        | 1434      | 2263              |
| 26                           | PC-1863      | CII-Badar-2                   | 2403   | 1388   | 1098    | 2776    | 1489   | 1919   | 1845    | 1161    | 2594   | 2727     | 1247    | 1932    | 4186        | 2675    | 3947    | 3603        | 1947      | 2254              |
| 27                           | PC-1864      | CII-CEMB-102                  | 2385   | 1508   | 1056    | 3567    | 1471   | 1937   | 1987    | 1496    | 3165   | 2296     | 1426    | 2096    | 2990        | 2300    | 3947    | 3079        | 1577      | 2223              |
| 28                           | PC-1860      | Sahara-2020 (CII)             | 2493   | 1149   | 1314    | 3549    | 1668   | 1578   | 1959    | 1795    | 2441   | 1866     | 1659    | 1940    | 2990        | 2658    | 3588    | 3079        | 2222      | 2212              |
| 29                           | PC-1862      | TJ-MAX (CII)                  | 2206   | 2046   | 818     | 3026    | 1722   | 1417   | 1873    | 1675    | 1518   | 2870     | 1372    | 1859    | 2272        | 2468    | 3947    | 2896        | 2222      | 2113              |
| 30                           | PC-1845      | SLH-6                         | 2313   | 1101   | 1120    | 2776    | 1669   | 1757   | 1789    | 1221    | 1629   | 2440     | 762     | 1513    | 2751        | 2989    | 3349    | 3029        | 1709      | 1970              |
|                              |              | Average:                      | 2715   | 1718   | 1180    | 3515    | 1967   | 1762   | 2143    | 2262    | 2587   | 2506     | 1633    | 2247    | 3273        | 2812    | 3839    | 3308        | 2022      | 2414              |
| Statistical Analysis Results |              |                               |        |        |         |         |        |        |         |         |        |          |         |         |             |         |         |             |           |                   |
| 1                            | CD 5%        |                               | 293    | 364    | 209     | 673     | 589    | 142    | ***     | 235     | 513    | 543      | 398     | ***     | 929         | 432     | 612     | ***         | 168       | ***               |
| 2                            | CD 1%        |                               | 390    | 484    | 278     | 895     | 783    | 189    | ***     | 313     | 682    | 722      | 530     | ***     | 1236        | 575     | 814     | ***         | 223       | ***               |
| 3                            | Significance |                               | **     | **     | **      | **      | **     | **     | ***     | **      | **     | **       | **      | ***     | **          | **      | NS      | ***         | **        | ***               |
| 4                            | CV %         |                               | 7      | 13     | 11      | 12      | 18     | 5      | ***     | 6       | 12     | 13       | 15      | ***     | 17          | 9       | 10      | ***         | 5         | ***               |

\* "Pakistan-Average" has been worked out as average of all 14 locations for more accuracy.

Note: Errors and Omissions are acceptable.

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Annexure-IV: Average Seed-Cotton Yield (kg/hectare) of Set-D in Descending order on Pakistan basis (All Bt lines)

| Sr.                          | Code         | Denomination of Strains/Lines | Punjab |        |         |         |        |        |         | Sindh   |        |          |         |         | Balochistan |         |         |             | KPK       | *Pakistan Average |
|------------------------------|--------------|-------------------------------|--------|--------|---------|---------|--------|--------|---------|---------|--------|----------|---------|---------|-------------|---------|---------|-------------|-----------|-------------------|
|                              |              |                               | Zone-6 | Zone-7 | Zone-2  | Zone-8  | Zone-3 | Zone-1 | 6-Zones | Zone-10 | Zone-9 | Zone-11  | Zone-12 | 4-Zones | Zone-13     | Zone-14 | Zone-15 | 3-Zones     | Zone-16   |                   |
|                              |              |                               | CCRI   | CRS    | CRS     | CRS     | CRS    | NIBGE  | Punjab  | CCRI    | CRS    | CRS      | ARI     | Sindh   | CRS         | CRS     | NAAL    | Balochistan | CRS       |                   |
|                              |              |                               | Multan | B.pur  | Sahiwal | Khanpur | Vehari | F.abad | Average | Sakrand | Ghotki | M.P.Khas | T.Jam   | Average | Lasbella    | Sibbi   | Kharan  | Average     | D.I. Khan |                   |
| 1                            | 2            | 3                             | 4      | 5      | 6       | 7       | 8      | 9      | 10      | 11      | 12     | 13       | 14      | 15      | 16          | 17      | 18      | 19          | 20        | 21                |
| 1                            | PC-1885      | Bt. CIM-678                   | 4480   | 2857   | 1350    | 4851    | 2906   | 1345   | 2965    | 2142    | 3763   | 4449     | 1426    | 2945    | 3949        | 2812    | 3949    | 3570        | 2760      | 3074              |
| 2                            | PC-1889      | CRIS-671                      | 3543   | 2392   | 1260    | 3864    | 2368   | 1578   | 2501    | 2645    | 3346   | 3588     | 1534    | 2778    | 3590        | 2641    | 3949    | 3393        | 2425      | 2766              |
| 3                            | PC-1871      | Ghauri-1 (CKC)                | 3480   | 1873   | 846     | 3620    | 2081   | 1829   | 2288    | 2118    | 4153   | 2583     | 1893    | 2687    | 3710        | 3043    | 4188    | 3647        | 2091      | 2679              |
| 4                            | PC-1894      | Eagle-3                       | 3339   | 1794   | 1242    | 4149    | 2243   | 1775   | 2424    | 2537    | 3813   | 2440     | 1731    | 2630    | 3590        | 2484    | 3949    | 3341        | 2401      | 2678              |
| 5                            | PC-1886      | IUB-13 (Bt Std-2)             | 3318   | 1555   | 1387    | 3599    | 2368   | 1558   | 2297    | 1927    | 3760   | 3157     | 1130    | 2493    | 4428        | 2655    | 3829    | 3637        | 2581      | 2661              |
| 6                            | PC-1895      | Eye-111                       | 3523   | 1953   | 882     | 3829    | 2763   | 1793   | 2457    | 2393    | 3479   | 2153     | 1857    | 2470    | 3710        | 2234    | 4428    | 3457        | 2103      | 2650              |
| 7                            | PC-1882      | BH-223                        | 3303   | 1847   | 1638    | 3663    | 2548   | 1704   | 2450    | 2226    | 3577   | 2440     | 1588    | 2457    | 3351        | 2817    | 4069    | 3412        | 2210      | 2641              |
| 8                            | PC-1888      | BZU-07                        | 3417   | 1820   | 1656    | 3541    | 2404   | 1883   | 2453    | 2178    | 3561   | 2296     | 1615    | 2412    | 4069        | 3056    | 3111    | 3412        | 2318      | 2637              |
| 9                            | PC-1893      | Cyto-511                      | 2909   | 1940   | 900     | 3777    | 2422   | 1955   | 2317    | 2262    | 3482   | 2440     | 1731    | 2479    | 3829        | 2664    | 3949    | 3481        | 2162      | 2602              |
| 10                           | PC-1887      | Bt. CIM-789                   | 4247   | 2192   | 1314    | 3859    | 2260   | 1811   | 2614    | 1603    | 3986   | 1435     | 1507    | 2133    | 3949        | 2671    | 2633    | 3084        | 2569      | 2574              |
| 11                           | PC-1884      | Bt. CIM-303                   | 3895   | 1727   | 1530    | 3826    | 1830   | 1865   | 2446    | 694     | 3845   | 2009     | 1211    | 1940    | 4069        | 2917    | 3949    | 3645        | 2616      | 2570              |
| 12                           | PC-1890      | CRIS-673                      | 3526   | 1794   | 990     | 3546    | 2924   | 1901   | 2447    | 2860    | 1817   | 3014     | 1659    | 2337    | 3231        | 2758    | 3231    | 3073        | 2186      | 2531              |
| 13                           | PC-1883      | BS-20                         | 3258   | 1648   | 1638    | 3714    | 2565   | 1652   | 2412    | 2094    | 2639   | 2296     | 1758    | 2197    | 2752        | 2722    | 4188    | 3221        | 2162      | 2506              |
| 14                           | PC-1881      | BF-1                          | 3603   | 1754   | 1476    | 3838    | 1884   | 1847   | 2400    | 1424    | 3241   | 2440     | 1229    | 2083    | 3470        | 2860    | 3351    | 3227        | 2127      | 2467              |
| 15                           | PC-1877      | CIM-602 (Bt Std-1)            | 3014   | 1860   | 1044    | 3800    | 1471   | 1668   | 2143    | 2321    | 2790   | 2870     | 1937    | 2480    | 3590        | 2816    | 3231    | 3212        | 1840      | 2447              |
| 16                           | PC-1869      | CEMB-Klean Cotton-1 (CKC)     | 3118   | 2033   | 1071    | 3429    | 1560   | 1811   | 2170    | 1759    | 3812   | 2296     | 1893    | 2440    | 2872        | 2535    | 3710    | 3039        | 2318      | 2444              |
| 17                           | PC-1876      | CKC-Hatf-3                    | 3408   | 1834   | 1314    | 4122    | 2009   | 1560   | 2374    | 2022    | 2134   | 2727     | 1893    | 2194    | 2513        | 2851    | 3351    | 2905        | 1959      | 2407              |
| 18                           | PC-1870      | CEMB-Klean Cotton-2 (CKC)     | 2623   | 2378   | 1206    | 3532    | 1848   | 1883   | 2245    | 1448    | 2815   | 2870     | 1615    | 2187    | 2154        | 2976    | 2992    | 2707        | 2389      | 2338              |
| 19                           | PC-1892      | Cyto-510                      | 3329   | 1568   | 1098    | 3908    | 2045   | 1990   | 2323    | 1592    | 1540   | 2440     | 1408    | 1745    | 3231        | 2668    | 3710    | 3203        | 2103      | 2331              |
| 20                           | PC-1873      | CKC-3                         | 3595   | 1860   | 1314    | 3782    | 2153   | 1614   | 2386    | 1496    | 2914   | 2009     | 1354    | 1943    | 2154        | 2912    | 3470    | 2845        | 1900      | 2323              |
| 21                           | PC-1879      | CKC-Sahara-Klean              | 2882   | 1276   | 1512    | 3598    | 1687   | 1578   | 2089    | 1939    | 2298   | 2009     | 1982    | 2057    | 3351        | 3021    | 3231    | 3201        | 2091      | 2318              |
| 22                           | PC-1880      | CKC-TJ-Inqilab                | 2900   | 1741   | 1008    | 3818    | 2081   | 1704   | 2208    | 1412    | 2656   | 2009     | 1345    | 1856    | 2872        | 2925    | 3710    | 3169        | 1900      | 2291              |
| 23                           | PC-1872      | Hatf-1 (CKC)                  | 2897   | 1648   | 882     | 3367    | 1848   | 1417   | 2010    | 1903    | 2580   | 2009     | 2099    | 2148    | 2872        | 2631    | 3710    | 3071        | 2198      | 2290              |
| 24                           | PC-1874      | CKC-4                         | 2929   | 1422   | 1080    | 3698    | 1883   | 1955   | 2161    | 1556    | 2665   | 2440     | 1758    | 2104    | 2872        | 2857    | 2872    | 2867        | 1983      | 2284              |
| 25                           | PC-1878      | CKC-ICI-2323                  | 3020   | 1448   | 1476    | 3357    | 1651   | 1578   | 2088    | 2214    | 2936   | 1148     | 1408    | 1927    | 3111        | 2841    | 3111    | 3021        | 1864      | 2226              |
| 26                           | PC-1891      | Crystal-20                    | 2605   | 1860   | 810     | 3608    | 2404   | 2008   | 2216    | 1328    | 1540   | 1579     | 1139    | 1396    | 3470        | 2438    | 4188    | 3365        | 1852      | 2202              |
| 27                           | PC-1875      | CKC-Clean Flex                | 2673   | 1462   | 648     | 3330    | 1866   | 1883   | 1977    | 1244    | 1586   | 2009     | 1534    | 1593    | 4069        | 2930    | 3231    | 3410        | 1971      | 2174              |
|                              |              | Average:                      | 3290   | 1835   | 1206    | 3742    | 2151   | 1746   | 2328    | 1901    | 2990   | 2413     | 1601    | 2226    | 3364        | 2768    | 3603    | 3245        | 2188      | 2486              |
| Statistical Analysis Results |              |                               |        |        |         |         |        |        |         |         |        |          |         |         |             |         |         |             |           |                   |
| 1                            | CD 5%        |                               | 318    | 118    | 280     | 633     | 679    | 205    | '''     | 76      | 560    | 453      | 536     | '''     | 751         | 433     | 787     | '''         | 243       | '''               |
| 2                            | CD 1%        |                               | 424    | 157    | 373     | 843     | 904    | 273    | '''     | 102     | 746    | 604      | 714     | '''     | 1001        | 577     | 1048    | '''         | 324       | '''               |
| 3                            | Significance |                               | **     | **     | **      | *       | **     | **     | '''     | **      | **     | **       | *       | '''     | **          | NS      | **      | '''         | **        | '''               |
| 4                            | CV %         |                               | 6      | 4      | 14      | 10      | 19     | 7      | '''     | 2       | 11     | 11       | 20      | '''     | 14          | 10      | 13      | '''         | 7         | '''               |

\* "Pakistan-Average" has been worked out as average of all 14 locations for more accuracy.  
Note: Errors and Omissions are acceptable.

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Pakistan Central Cotton Committee

Directorate of Agriculture Research

2018- NCVT Field Trial Results

Annexure-V: Average Seed-Cotton Yield (kg/hectare) of Set-E in Descending order on Pakistan basis (All Bt lines)

| Sr.                          | Code         | Denomination of Strains/Lines | Punjab |        |         |         |        |        |         | Sindh   |        |          |         |         | Balochistan |         |         |             | KPK       | *Pakistan Average |
|------------------------------|--------------|-------------------------------|--------|--------|---------|---------|--------|--------|---------|---------|--------|----------|---------|---------|-------------|---------|---------|-------------|-----------|-------------------|
|                              |              |                               | Zone-6 | Zone-7 | Zone-2  | Zone-8  | Zone-3 | Zone-1 | 6-Zones | Zone-10 | Zone-9 | Zone-11  | Zone-12 | 4-Zones | Zone-13     | Zone-14 | Zone-15 | 3-Zones     | Zone-16   |                   |
|                              |              |                               | CCRI   | CRS    | CRS     | CRS     | CRS    | NIBGE  | Punjab  | CCRI    | CRS    | CRS      | SAU     | Sindh   | CRS         | CRS     | NAAL    | Balochistan | CRS       |                   |
|                              |              |                               | Multan | B.pur  | Sahiwal | Khanpur | Vehari | F.abad | Average | Sakrand | Ghotki | M.P.Khas | T.Jam   | Average | Lasbella    | Sibbi   | Loralai | Average     | D.I. Khan |                   |
| 1                            | 2            | 3                             | 4      | 5      | 6       | 7       | 8      | 9      | 10      | 11      | 12     | 13       | 14      | 15      | 16          | 17      | 18      | 19          | 20        | 21                |
| 1                            | PC-18114     | Rohi-1                        | 3046   | 2034   | 1710    | 4027    | 2404   | 1201   | 2404    | 2561    | 4487   | 2440     | 1841    | 2832    | 4308        | 2335    | 4069    | 3570        | 1843      | 2736              |
| 2                            | PC-18121     | Weal AG-8                     | 2745   | 2997   | 1674    | 4141    | 2206   | 1435   | 2533    | 2238    | 2921   | 2727     | 1923    | 2452    | 3829        | 2550    | 4069    | 3483        | 2113      | 2683              |
| 3                            | PC-18110     | NIAB-135                      | 2636   | 1772   | 990     | 4226    | 2063   | 2080   | 2294    | 2668    | 3090   | 3157     | 1978    | 2723    | 3710        | 2494    | 3949    | 3384        | 2165      | 2641              |
| 4                            | PC-18118     | Tipu-1524                     | 2931   | 1915   | 1242    | 3661    | 2727   | 1130   | 2268    | 2357    | 4211   | 2870     | 2069    | 2877    | 3590        | 2639    | 3710    | 3313        | 1922      | 2641              |
| 5                            | PC-18119     | VH-402                        | 2848   | 1486   | 1458    | 3546    | 2978   | 1453   | 2295    | 2513    | 4319   | 2153     | 1936    | 2730    | 3231        | 2286    | 3949    | 3155        | 2178      | 2595              |
| 6                            | PC-18100     | GH-UHAD                       | 2943   | 1843   | 1062    | 3820    | 2888   | 1381   | 2323    | 1974    | 4878   | 2009     | 1910    | 2693    | 3470        | 2935    | 3829    | 3411        | 1238      | 2584              |
| 7                            | PC-18112     | RH-670                        | 2890   | 2010   | 1386    | 3871    | 2404   | 1578   | 2356    | 2202    | 3935   | 2296     | 1698    | 2533    | 2872        | 2496    | 3710    | 3026        | 2183      | 2538              |
| 8                            | PC-18120     | Weal AG-7                     | 2760   | 1558   | 1404    | 3408    | 2404   | 1686   | 2203    | 1986    | 3613   | 2009     | 1886    | 2374    | 4188        | 2320    | 4188    | 3566        | 2038      | 2532              |
| 9                            | PC-18103     | IR-NIBGE-13                   | 2719   | 1415   | 1749    | 3869    | 2099   | 1739   | 2265    | 2142    | 4684   | 2009     | 2191    | 2756    | 2513        | 3069    | 3590    | 3057        | 1652      | 2531              |
| 10                           | PC-1899      | FH-Supper Cotton-2017         | 2600   | 1808   | 1494    | 3667    | 2422   | 1973   | 2327    | 1675    | 3749   | 2440     | 1478    | 2336    | 3590        | 2756    | 3590    | 3312        | 2117      | 2526              |
| 11                           | PC-18115     | Rustam-11                     | 2961   | 1189   | 1368    | 3053    | 2260   | 1990   | 2137    | 1998    | 4984   | 1435     | 1674    | 2523    | 3590        | 2762    | 3710    | 3354        | 2287      | 2519              |
| 12                           | PC-1898      | FH-AM Cotton-2017             | 2893   | 1272   | 891     | 3385    | 2045   | 1829   | 2053    | 1448    | 4823   | 1866     | 1940    | 2519    | 4308        | 2949    | 4188    | 3815        | 1278      | 2508              |
| 13                           | PC-18109     | NIAB-1011                     | 2849   | 1499   | 1260    | 3918    | 2260   | 1488   | 2212    | 2489    | 3253   | 2296     | 2547    | 2646    | 3111        | 2485    | 3351    | 2982        | 2022      | 2488              |
| 14                           | PC-18107     | MNH-1035                      | 2702   | 2033   | 1476    | 3839    | 2440   | 1470   | 2327    | 1675    | 2275   | 2009     | 1633    | 1898    | 4069        | 2694    | 4069    | 3610        | 1922      | 2450              |
| 15                           | PC-18104     | CIM-602 (Bt Std-1)            | 2641   | 1606   | 1296    | 3752    | 2225   | 1578   | 2183    | 2668    | 4300   | 1866     | 1829    | 2666    | 2633        | 2208    | 4308    | 3049        | 1286      | 2442              |
| 16                           | PC-1897      | FH-155                        | 2767   | 2414   | 837     | 3290    | 1883   | 1650   | 2140    | 1424    | 3287   | 1579     | 1381    | 1918    | 3710        | 2992    | 3710    | 3470        | 2320      | 2375              |
| 17                           | PC-18117     | Tassco-112                    | 3124   | 1665   | 990     | 3736    | 1884   | 1668   | 2178    | 1735    | 4305   | 1148     | 1688    | 2219    | 3231        | 2616    | 3231    | 3026        | 2210      | 2374              |
| 18                           | PC-18101     | ICI-2424                      | 2596   | 2022   | 1062    | 3959    | 2224   | 1291   | 2192    | 1364    | 3612   | 2009     | 1930    | 2229    | 2872        | 2920    | 3590    | 3127        | 1670      | 2366              |
| 19                           | PC-1896      | Eye-20                        | 2785   | 1391   | 1109    | 3431    | 2009   | 1757   | 2080    | 1651    | 2252   | 2870     | 1194    | 1992    | 4069        | 2647    | 3829    | 3515        | 1860      | 2347              |
| 20                           | PC-18106     | Koh-i-Noor                    | 3139   | 1641   | 1341    | 3765    | 2027   | 1757   | 2279    | 1424    | 3503   | 1579     | 1361    | 1967    | 2633        | 2884    | 4428    | 3315        | 1330      | 2344              |
| 21                           | PC-18102     | IR-NIBGE-12                   | 2659   | 1237   | 1392    | 2966    | 1884   | 1739   | 1979    | 1268    | 3412   | 1148     | 1548    | 1844    | 3829        | 3024    | 3829    | 3561        | 1109      | 2217              |
| 22                           | PC-18113     | IUB-13 (Bt Std-2)             | 2860   | 1558   | 954     | 3668    | 1704   | 1184   | 1988    | 1783    | 3590   | 1005     | 1658    | 2009    | 2513        | 2327    | 3949    | 2930        | 1522      | 2162              |
| 23                           | PC-18108     | MZM-7                         | 3157   | 1653   | 1242    | 3667    | 2386   | 1811   | 2319    | 778     | 2274   | 1148     | 923     | 1281    | 2992        | 2487    | 3590    | 3023        | 1725      | 2131              |
| 24                           | PC-18105     | IUB-71                        | 2501   | 1641   | 1161    | 3174    | 2045   | 1237   | 1960    | 790     | 2614   | 1435     | 783     | 1406    | 3590        | 3188    | 3710    | 3496        | 1050      | 2066              |
| 25                           | PC-18116     | SLH-33                        | 2458   | 1736   | 857     | 3124    | 1309   | 1291   | 1796    | 1149    | 2601   | 2440     | 984     | 1793    | 2633        | 2241    | 3829    | 2901        | 1815      | 2033              |
| 26                           | PC-18111     | NS-201                        | 2316   | 999    | 891     | 2659    | 1704   | 1255   | 1637    | 802     | 3908   | 1005     | 1173    | 1722    | 4188        | 2798    | 3710    | 3565        | 929       | 2024              |
|                              |              | Average:                      | 2789   | 1708   | 1242    | 3601    | 2188   | 1564   | 2182    | 1799    | 3649   | 1959     | 1660    | 2267    | 3433        | 2658    | 3834    | 3308        | 1761      | 2417              |
| Statistical Analysis Results |              |                               |        |        |         |         |        |        |         |         |        |          |         |         |             |         |         |             |           |                   |
| 1                            | CD 5%        |                               | 328    | 449    | 270     | 648     | 721    | 144    | ***     | 77      | 428    | 351      | 422     | ***     | 760         | 528     | 558     | ***         | 282       | ***               |
| 2                            | CD 1%        |                               | 437    | 598    | 360     | 864     | 961    | 193    | ***     | 103     | 571    | 467      | 563     | ***     | 1014        | 704     | 743     | ***         | 376       | ***               |
| 3                            | Significance |                               | **     | **     | **      | **      | *      | **     | ***     | **      | **     | **       | **      | ***     | **          | **      | *       | ***         | **        | ***               |
| 4                            | CV %         |                               | 7      | 16     | 13      | 11      | 20     | 6      | ***     | 3       | 7      | 11       | 16      | ***     | 14          | 12      | 9       | ***         | 10        | ***               |

\* "Pakistan-Average" has been worked out as average of all 14 locations for more accuracy.

Note: Errors and Ommissions are acceptable.

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**Pakistan Central Cotton Committee Directorate of Agriculture Research**

**2018- NCVT Field Trial Results**

**Annexure-VI: Average Seed-Cotton Yield (kg/hectare) of Set A to E on Pakistan Basis in Descending order (All Bt lines)**

| Sr. | Code     | Denom<br>ination<br>of<br>Strains<br>/Lines | Punjab |       |       |       |        |       |             | Sindh |       |       |       |             | Balochistan |       |        |             | KPK   | Pakistan<br>Average |
|-----|----------|---------------------------------------------|--------|-------|-------|-------|--------|-------|-------------|-------|-------|-------|-------|-------------|-------------|-------|--------|-------------|-------|---------------------|
|     |          |                                             | Zone-  | Zone- | Zone- | Zone- | Zone-  | Zone- | 6-          | Zone- | Zone- | Zone- | Zone- | 4-          | Zone-       | Zone- | Zone-  | 3-          | Zone- |                     |
|     |          |                                             | CCRI   | CRS   | CRS   | CRS   | CRS    | NIBG  | Punj        | CCRI  | CRS   | CRS   | NIA/A | Sindh       | CRS         | CRS   | NAAL   | Balochi     | CRS   |                     |
|     |          |                                             | Mult   | B.pur | Sahi  | Khanp | Vehari | F.aba | Aver        | Sakra | Ghotk | M.P.K | T.Jam | Ave.        | Lasbel      | Sibbi | Kzdr/K | Averag      | D.I.  |                     |
| 1   | 2        | 3                                           | 6      | 7     | 8     | 9     | 10     | 11    | 12          | 13    | 14    | 15    | 16    | 17          | 18          | 19    | 20     | 21          | 22    | 23                  |
| 1   | PC-1826  | GH-Haadi                                    | 3254   | 2428  | 1299  | 3689  | 2440   | 3588  | <b>2783</b> | 3135  | 3811  | 3301  | 2834  | <b>3270</b> | 4308        | 2987  | 4308   | <b>3867</b> | 1958  | <b>3096</b>         |
| 2   | PC-1885  | Bt. CIM-678                                 | 4480   | 2857  | 1350  | 4851  | 2906   | 1345  | <b>2965</b> | 2142  | 3763  | 4449  | 1426  | <b>2945</b> | 3949        | 2812  | 3949   | <b>3570</b> | 2760  | <b>3074</b>         |
| 3   | PC-1828  | ICI-2121                                    | 3010   | 2308  | 1305  | 3662  | 2260   | 3947  | <b>2749</b> | 3279  | 4189  | 3731  | 3638  | <b>3709</b> | 2872        | 2792  | 2992   | <b>2885</b> | 2240  | <b>3016</b>         |
| 4   | PC-1830  | IR-NIBGE-                                   | 3511   | 2415  | 1877  | 4934  | 2601   | 3564  | <b>3150</b> | 1843  | 1671  | 3157  | 2481  | <b>2288</b> | 2872        | 3024  | 4428   | <b>3441</b> | 2324  | <b>2907</b>         |
| 5   | PC-1809  | CRIS-510                                    | ~      | ~     | ~     | ~     | ~      | ~     | ~           | 3063  | 3228  | 2296  | 3003  | 2898        | 2393        | 2613  | 3710   | 2905        | ~     | 2901                |
| 6   | PC-1817  | BS-18                                       | 3487   | 2308  | 1384  | 3742  | 2727   | 3707  | <b>2893</b> | 2190  | 2061  | 2296  | 2519  | <b>2266</b> | 4188        | 3080  | 3949   | <b>3739</b> | 2076  | <b>2837</b>         |
| 7   | PC-1825  | FH-490                                      | 3572   | 2176  | 1035  | 3676  | 2440   | 2727  | <b>2604</b> | 2369  | 3483  | 3301  | 2784  | <b>2984</b> | 3470        | 2831  | 3351   | <b>3217</b> | 2211  | <b>2816</b>         |
| 8   | PC-1814  | Auriga-216                                  | 3290   | 2176  | 1008  | 3401  | 2565   | 3014  | <b>2576</b> | 2525  | 2430  | 2870  | 2808  | <b>2658</b> | 3949        | 3061  | 3829   | <b>3613</b> | 2434  | <b>2811</b>         |
| 9   | PC-1836  | NIAB-898                                    | 3028   | 2415  | 1035  | 3173  | 2404   | 3588  | <b>2607</b> | 3087  | 3023  | 2296  | 3222  | <b>2907</b> | 2992        | 2947  | 4069   | <b>3336</b> | 2051  | <b>2809</b>         |
| 10  | PC-1852  | VH-383                                      | 2995   | 2334  | 1638  | 3726  | 2648   | 1721  | <b>2510</b> | 3434  | 3999  | 2296  | 1632  | <b>2840</b> | 3707        | 2956  | 3947   | <b>3537</b> | 2079  | <b>2794</b>         |
| 11  | PC-1889  | CRIS-671                                    | 3543   | 2392  | 1260  | 3864  | 2368   | 1578  | <b>2501</b> | 2645  | 3346  | 3588  | 1534  | <b>2778</b> | 3590        | 2641  | 3949   | <b>3393</b> | 2425  | <b>2766</b>         |
| 12  | PC-1827  | GH-Mubarak                                  | 3480   | 2123  | 1026  | 3521  | 2260   | 3349  | <b>2627</b> | 3016  | 2737  | 2296  | 3064  | <b>2778</b> | 3231        | 2864  | 3590   | <b>3228</b> | 1982  | <b>2753</b>         |
| 13  | PC-1834  | MNH-1026                                    | 3315   | 2454  | 1152  | 3511  | 2637   | 3420  | <b>2748</b> | 2932  | 1943  | 2583  | 3104  | <b>2640</b> | 2513        | 2941  | 3829   | <b>3094</b> | 2030  | <b>2740</b>         |
| 14  | PC-18114 | Rohi-1                                      | 3046   | 2034  | 1710  | 4027  | 2404   | 1201  | <b>2404</b> | 2561  | 4487  | 2440  | 1841  | <b>2832</b> | 4308        | 2335  | 4069   | <b>3570</b> | 1843  | <b>2736</b>         |
| 15  | PC-1851  | VH-189                                      | 3102   | 1807  | 1161  | 3906  | 2616   | 1847  | <b>2407</b> | 3135  | 3668  | 2727  | 1792  | <b>2830</b> | 3349        | 2967  | 4066   | <b>3461</b> | 2007  | <b>2725</b>         |



|           |          |               |      |      |      |      |      |      |             |      |      |      |      |             |      |             |             |             |      |             |
|-----------|----------|---------------|------|------|------|------|------|------|-------------|------|------|------|------|-------------|------|-------------|-------------|-------------|------|-------------|
| <b>16</b> | PC-1838  | RH-Afnan      | 3233 | 2282 | 778  | 3793 | 2440 | 3947 | <b>2745</b> | 2262 | 2686 | 1866 | 2382 | <b>2299</b> | 3351 | 2869        | <b>4045</b> | <b>3422</b> | 1910 | <b>2703</b> |
| <b>17</b> | PC-1819  | Bt. CIM-663   | 3356 | 2560 | 1317 | 3735 | 1884 | 2798 | <b>2608</b> | 2118 | 1789 | 1866 | 2879 | <b>2163</b> | 3949 | 3143        | 4069        | <b>3720</b> | 2223 | <b>2692</b> |
| <b>18</b> | PC-18121 | Weal AG-8     | 2745 | 2997 | 1674 | 4141 | 2206 | 1435 | <b>2533</b> | 2238 | 2921 | 2727 | 1923 | <b>2452</b> | 3829 | 2550        | 4069        | <b>3483</b> | 2113 | <b>2683</b> |
| <b>19</b> | PC-1871  | Ghauri-1      | 3480 | 1873 | 846  | 3620 | 2081 | 1829 | <b>2288</b> | 2118 | 4153 | 2583 | 1893 | <b>2687</b> | 3710 | 3043        | 4188        | <b>3647</b> | 2091 | <b>2679</b> |
| <b>20</b> | PC-1894  | Eagle-3       | 3339 | 1794 | 1242 | 4149 | 2243 | 1775 | <b>2424</b> | 2537 | 3813 | 2440 | 1731 | <b>2630</b> | 3590 | 2484        | 3949        | <b>3341</b> | 2401 | <b>2678</b> |
| <b>21</b> | PC-1803  | CRIS-613      | 2654 | 1974 | 576  | 3829 | 2368 | 1148 | <b>2092</b> | 3267 | 4386 | 2296 | 3405 | <b>3338</b> | 3231 | 3323        | 3231        | <b>3262</b> | 1758 | <b>2675</b> |
| <b>22</b> | PC-1818  | Bt. CIM-343   | 3360 | 2202 | 1445 | 3395 | 2888 | 2392 | <b>2614</b> | 2262 | 1866 | 1866 | 3355 | <b>2337</b> | 4069 | 2986        | 3470        | <b>3508</b> | 1863 | <b>2673</b> |
| <b>23</b> | PC-1832  | KZ-125        | 3012 | 1910 | 1188 | 3266 | 2584 | 3085 | <b>2507</b> | 2561 | 1955 | 2870 | 2592 | <b>2495</b> | 3231 | 2956        | 3949        | <b>3378</b> | 2114 | <b>2662</b> |
| <b>24</b> | PC-1813  | AA-933        | 2197 | 2030 | 1080 | 3165 | 1686 | 3851 | <b>2335</b> | 2549 | 2924 | 2440 | 3071 | <b>2746</b> | 2872 | 3305        | 3590        | <b>3255</b> | 2492 | <b>2661</b> |
| <b>25</b> | PC-1861  | Tahafuz-10    | 2636 | 1699 | 1728 | 3472 | 2045 | 2080 | <b>2277</b> | 2968 | 3108 | 2870 | 2036 | <b>2745</b> | 3947 | 2542        | 3947        | <b>3479</b> | 2043 | <b>2651</b> |
| <b>26</b> | PC-1895  | Eye-111       | 3523 | 1953 | 882  | 3829 | 2763 | 1793 | <b>2457</b> | 2393 | 3479 | 2153 | 1857 | <b>2470</b> | 3710 | 2234        | 4428        | <b>3457</b> | 2103 | <b>2650</b> |
| <b>27</b> | PC-1854  | Weal AG-6     | 3425 | 2046 | 1215 | 3854 | 2565 | 1506 | <b>2435</b> | 3913 | 2612 | 2440 | 1989 | <b>2738</b> | 2631 | 3265        | 3468        | <b>3121</b> | 2091 | <b>2644</b> |
| <b>28</b> | PC-1882  | BH-223        | 3303 | 1847 | 1638 | 3663 | 2548 | 1704 | <b>2450</b> | 2226 | 3577 | 2440 | 1588 | <b>2457</b> | 3351 | 2817        | 4069        | <b>3412</b> | 2210 | <b>2641</b> |
| <b>29</b> | PC-18110 | NIAB-135      | 2636 | 1772 | 990  | 4226 | 2063 | 2080 | <b>2294</b> | 2668 | 3090 | 3157 | 1978 | <b>2723</b> | 3710 | 2494        | 3949        | <b>3384</b> | 2165 | <b>2641</b> |
| <b>30</b> | PC-18118 | Tipu-1524     | 2931 | 1915 | 1242 | 3661 | 2727 | 1130 | <b>2268</b> | 2357 | 4211 | 2870 | 2069 | <b>2877</b> | 3590 | 2639        | 3710        | <b>3313</b> | 1922 | <b>2641</b> |
| <b>31</b> | PC-1849  | Tassco-902    | 2636 | 1520 | 1287 | 3473 | 2243 | 1955 | <b>2186</b> | 2621 | 4171 | 2727 | 1821 | <b>2835</b> | 3827 | 2844        | 3947        | <b>3539</b> | 1900 | <b>2641</b> |
| <b>32</b> | PC-1855  | Badar-1 (CII) | 3031 | 2154 | 981  | 3909 | 1848 | 2116 | <b>2340</b> | 2728 | 3082 | 3157 | 1749 | <b>2679</b> | 3588 | 2492        | 4066        | <b>3382</b> | 2043 | <b>2639</b> |
| <b>33</b> | PC-1888  | BZU-07        | 3417 | 1820 | 1656 | 3541 | 2404 | 1883 | <b>2453</b> | 2178 | 3561 | 2296 | 1615 | <b>2412</b> | 4069 | 3056        | 3111        | <b>3412</b> | 2318 | <b>2637</b> |
| <b>34</b> | PC-1833  | MNH-1020      | 2943 | 2494 | 1350 | 3300 | 2225 | 3253 | <b>2594</b> | 2501 | 1912 | 3157 | 2434 | <b>2501</b> | 2992 | 2876        | 3231        | <b>3033</b> | 2139 | <b>2629</b> |
| <b>35</b> | PC-1893  | Cyto-511      | 2909 | 1940 | 900  | 3777 | 2422 | 1955 | <b>2317</b> | 2262 | 3482 | 2440 | 1731 | <b>2479</b> | 3829 | <b>2664</b> | 3949        | <b>3481</b> | 2162 | <b>2602</b> |
| <b>36</b> | PC-18119 | VH-402        | 2848 | 1486 | 1458 | 3546 | 2978 | 1453 | <b>2295</b> | 2513 | 4319 | 2153 | 1936 | <b>2730</b> | 3231 | 2286        | 3949        | <b>3155</b> | 2178 | <b>2595</b> |

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**2018- NCVT Field Trial Results**

**Annexure-VI: Average Seed-Cotton Yield (kg/hectare)**

| Sr. | Code     | Deno<br>minati<br>on of<br>Strain<br>s/Line | Punjab |        |        |        |        |        |        | Sindh   |         |         |         |       | Balochistan |         |         |       | KPK     | Pakistan<br>Av. |
|-----|----------|---------------------------------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|-------|-------------|---------|---------|-------|---------|-----------------|
|     |          |                                             | Zone-6 | Zone-7 | Zone-8 | Zone-3 | Zone-5 | 6-     |        | Zone-13 | Zone-14 | Zone-15 | Zone-16 | 4-    | Zone-18     | Zone-19 | Zone-20 | 3-    | Zone-22 |                 |
|     |          |                                             | CCRI   | CRS    | CRS    | CRS    | CRS    | NIBGE  | Punjab | CCRI    | CRS     | CRS     | NIA/A   | Sindh | CRS         | CRS     | NAAL    | Baloc | CRS     |                 |
|     |          |                                             | Mult   | B.pur  | Sahiw  | Khanp  | Vehari | F.abad | Averag | Sakra   | Ghotk   | M.P.K   | T.Jam   | Avera | Lasbe       | Sibbi   | Kzdr/K  | Avera | D.I.    |                 |
| 1   | 2        | 3                                           | 6      | 7      | 8      | 9      | 10     | 11     | 12     | 13      | 14      | 15      | 16      | 17    | 18          | 19      | 20      | 21    | 22      | 23              |
| 37  | PC-1823  | Evyol-148                                   | 3139   | 2308   | 1314   | 3157   | 2243   | 2918   | 2513   | 2321    | 2924    | 2153    | 2535    | 2483  | 3351        | 2665    | 3470    | 3162  | 1815    | 2594            |
| 38  | PC-1816  | BH-221                                      | 2665   | 2468   | 864    | 3477   | 2242   | 3062   | 2463   | 1735    | 2235    | 2440    | 3236    | 2411  | 3470        | 2933    | 3470    | 3291  | 1970    | 2591            |
| 39  | PC-1810  | NIAB-818                                    | 2096   | 1605   | 873    | 3880   | 2906   | 1798   | 2193   | 3016    | 3199    | 1005    | 3868    | 2772  | 2752        | 3045    | 3949    | 3249  | 2191    | 2585            |
| 40  | PC-18100 | GH-UHAD                                     | 2943   | 1843   | 1062   | 3820   | 2888   | 1381   | 2323   | 1974    | 4878    | 2009    | 1910    | 2693  | 3470        | 2935    | 3829    | 3411  | 1238    | 2584            |
| 41  | PC-1812  | Bahar-07                                    | 2242   | 1990   | 1458   | 2752   | 1884   | 3133   | 2243   | 2597    | 2404    | 2009    | 3435    | 2611  | 3231        | 2777    | 4069    | 3359  | 2123    | 2579            |
| 42  | PC-1887  | Bt. CIM-789                                 | 4247   | 2192   | 1314   | 3859   | 2260   | 1811   | 2614   | 1603    | 3986    | 1435    | 1507    | 2133  | 3949        | 2671    | 2633    | 3084  | 2569    | 2574            |
| 43  | PC-1884  | Bt. CIM-303                                 | 3895   | 1727   | 1530   | 3826   | 1830   | 1865   | 2446   | 694     | 3845    | 2009    | 1211    | 1940  | 4069        | 2917    | 3949    | 3645  | 2616    | 2570            |
| 44  | PC-1824  | FH-444                                      | 2731   | 2096   | 1233   | 3417   | 1884   | 3134   | 2416   | 2704    | 2084    | 2009    | 2651    | 2362  | 3111        | 2996    | 3949    | 3352  | 1982    | 2570            |
| 45  | PC-1868  | CII-TJ-King                                 | 3318   | 1795   | 1602   | 3779   | 2206   | 2026   | 2454   | 2764    | 2747    | 2296    | 2045    | 2463  | 2272        | 2398    | 4305    | 2992  | 2198    | 2554            |
| 46  | PC-1837  | NS-191                                      | 3208   | 2123   | 868    | 3144   | 2548   | 3181   | 2512   | 2393    | 1812    | 2009    | 3410    | 2406  | 2872        | 2980    | 3231    | 3028  | 1958    | 2553            |
| 47  | PC-1807  | CRIS-552                                    | 2634   | 2414   | 706    | 4382   | 2296   | 994    | 2238   | 3075    | 3975    | 1579    | 3407    | 3009  | 1795        | 3169    | 3351    | 2771  | 1891    | 2548            |
| 48  | PC-1839  | RH-Manthar                                  | 2367   | 1986   | 1192   | 4188   | 2189   | 2044   | 2328   | 2465    | 1002    | 3731    | 1674    | 2218  | 3229        | 2868    | 4186    | 3428  | 2425    | 2539            |
| 49  | PC-18112 | RH-670                                      | 2890   | 2010   | 1386   | 3871   | 2404   | 1578   | 2356   | 2202    | 3935    | 2296    | 1698    | 2533  | 2872        | 2496    | 3710    | 3026  | 2183    | 2538            |
| 50  | PC-18120 | Weal AG-7                                   | 2760   | 1558   | 1404   | 3408   | 2404   | 1686   | 2203   | 1986    | 3613    | 2009    | 1886    | 2374  | 4188        | 2320    | 4188    | 3566  | 2038    | 2532            |



|    |          |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----|----------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 51 | PC-18103 | IR-NIBGE-13 | 2719 | 1415 | 1749 | 3869 | 2099 | 1739 | 2265 | 2142 | 4684 | 2009 | 2191 | 2756 | 2513 | 3069 | 3590 | 3057 | 1652 | 2531 |
| 52 | PC-1890  | CRIS-673    | 3526 | 1794 | 990  | 3546 | 2924 | 1901 | 2447 | 2860 | 1817 | 3014 | 1659 | 2337 | 3231 | 2758 | 3231 | 3073 | 2186 | 2531 |
| 53 | PC-1815  | Bahar-2017  | 3021 | 2056 | 863  | 3553 | 2296 | 2942 | 2455 | 2094 | 2507 | 1579 | 2576 | 2189 | 2872 | 3006 | 4069 | 3315 | 1934 | 2526 |
| 54 | PC-1822  | Cyto-515    | 3215 | 2361 | 1170 | 3277 | 2063 | 2894 | 2497 | 2118 | 2043 | 2009 | 2634 | 2201 | 3231 | 3007 | 3470 | 3236 | 1874 | 2526 |
| 55 | PC-1899  | FH-Supper   | 2600 | 1808 | 1494 | 3667 | 2422 | 1973 | 2327 | 1675 | 3749 | 2440 | 1478 | 2336 | 3590 | 2756 | 3590 | 3312 | 2117 | 2526 |
| 56 | PC-18115 | Rustam-11   | 2961 | 1189 | 1368 | 3053 | 2260 | 1990 | 2137 | 1998 | 4984 | 1435 | 1674 | 2523 | 3590 | 2762 | 3710 | 3354 | 2287 | 2519 |
| 57 | PC-1898  | FH-AM       | 2893 | 1272 | 891  | 3385 | 2045 | 1829 | 2053 | 1448 | 4823 | 1866 | 1940 | 2519 | 4308 | 2949 | 4188 | 3815 | 1278 | 2508 |
| 58 | *        | CIM-602 (Bt | 2799 | 1703 | 1212 | 3552 | 2045 | 2246 | 2260 | 2615 | 3111 | 2368 | 2110 | 2551 | 3141 | 2753 | 3619 | 3171 | 1827 | 2507 |
| 59 | PC-1883  | BS-20       | 3258 | 1648 | 1638 | 3714 | 2565 | 1652 | 2412 | 2094 | 2639 | 2296 | 1758 | 2197 | 2752 | 2722 | 4188 | 3221 | 2162 | 2506 |
| 60 | PC-1801  | CIM-717     | 2541 | 1511 | 1154 | 2903 | 1830 | 2033 | 1995 | 1771 | 4255 | 1866 | 2007 | 2475 | 4188 | 2910 | 4069 | 3722 | 2009 | 2503 |
| 61 | PC-1840  | Sahara-210  | 2529 | 1245 | 855  | 3836 | 2243 | 1757 | 2077 | 2968 | 2310 | 3301 | 1722 | 2575 | 3110 | 3409 | 3468 | 3329 | 2115 | 2490 |
| 62 | PC-18109 | NIAB-1011   | 2849 | 1499 | 1260 | 3918 | 2260 | 1488 | 2212 | 2489 | 3253 | 2296 | 2547 | 2646 | 3111 | 2485 | 3351 | 2982 | 2022 | 2488 |
| 63 | PC-1842  | Shaheen-16  | 2941 | 2118 | 1449 | 3462 | 2260 | 1686 | 2319 | 2896 | 2372 | 2009 | 1973 | 2313 | 3229 | 2748 | 3588 | 3188 | 1900 | 2474 |
| 64 | PC-1881  | BF-1        | 3603 | 1754 | 1476 | 3838 | 1884 | 1847 | 2400 | 1424 | 3241 | 2440 | 1229 | 2083 | 3470 | 2860 | 3351 | 3227 | 2127 | 2467 |
| 65 | PC-1808  | NIAB-191    | 2048 | 2176 | 1188 | 3438 | 2386 | 1671 | 2151 | 3339 | 3345 | 2009 | 3121 | 2953 | 2154 | 2482 | 2872 | 2503 | 2269 | 2464 |
| 66 | PC-1802  | Cyto-225    | 2034 | 1843 | 1038 | 4110 | 771  | 1579 | 1896 | 2010 | 4459 | 1866 | 2077 | 2603 | 4069 | 3087 | 3949 | 3701 | 1587 | 2463 |
| 67 | PC-18107 | MNH-1035    | 2702 | 2033 | 1476 | 3839 | 2440 | 1470 | 2327 | 1675 | 2275 | 2009 | 1633 | 1898 | 4069 | 2694 | 4069 | 3610 | 1922 | 2450 |
| 68 | PC-1869  | CEMB-Klean  | 3118 | 2033 | 1071 | 3429 | 1560 | 1811 | 2170 | 1759 | 3812 | 2296 | 1893 | 2440 | 2872 | 2535 | 3710 | 3039 | 2318 | 2444 |
| 69 | PC-1848  | Suncrop-6   | 3120 | 1556 | 1167 | 3891 | 2242 | 1560 | 2256 | 2070 | 2705 | 2440 | 1579 | 2198 | 3468 | 2997 | 3468 | 3311 | 1936 | 2443 |
| 70 | **       | IUB-13 (Bt  | 2957 | 1721 | 1188 | 3560 | 2166 | 1681 | 2212 | 1906 | 2920 | 2691 | 1661 | 2294 | 3230 | 2663 | 3799 | 3231 | 2011 | 2440 |
| 71 | PC-1866  | ClI-Suncrop | 3102 | 2477 | 1386 | 4094 | 1974 | 1883 | 2486 | 2034 | 2120 | 2153 | 1552 | 1965 | 2870 | 2476 | 3947 | 3098 | 2079 | 2439 |
| 72 | PC-1853  | Weal AG-5   | 2475 | 1711 | 897  | 3015 | 2045 | 1560 | 1951 | 1927 | 3037 | 2440 | 1615 | 2255 | 3827 | 3208 | 3947 | 3660 | 2270 | 2427 |
| 73 | PC-1843  | Sitara-16   | 2511 | 1544 | 1053 | 3564 | 2117 | 1757 | 2091 | 2645 | 2295 | 2870 | 1964 | 2443 | 2870 | 3103 | 3588 | 3187 | 2091 | 2427 |
| 74 | PC-1841  | Shahab-7    | 2887 | 1723 | 900  | 3371 | 1668 | 1829 | 2063 | 2405 | 1662 | 2727 | 1731 | 2131 | 3947 | 2910 | 3947 | 3601 | 2043 | 2411 |

|    |         |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----|---------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 75 | PC-1876 | CKC-Hatf-3  | 3408 | 1834 | 1314 | 4122 | 2009 | 1560 | 2374 | 2022 | 2134 | 2727 | 1893 | 2194 | 2513 | 2851 | 3351 | 2905 | 1959 | 2407 |
| 76 | PC-1859 | NU-21 (CII) | 2654 | 1400 | 1188 | 3661 | 2207 | 1578 | 2115 | 2070 | 2055 | 2009 | 1677 | 1953 | 4186 | 2785 | 3827 | 3599 | 2091 | 2385 |

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**2018- NCVT Field Trial Results**

**Annexure-VI: Average Seed-Cotton Yield (kg/hectare) of Set**

| Sr. | Code     | Denomin<br>ation of<br>Strains/L<br>ines | Punjab |       |       |       |       |       |      | Sindh  |        |       |         |        | Balochistan |       |       |        | KPK   | Pakista<br>n<br>Averag<br>e |
|-----|----------|------------------------------------------|--------|-------|-------|-------|-------|-------|------|--------|--------|-------|---------|--------|-------------|-------|-------|--------|-------|-----------------------------|
|     |          |                                          | Zone-  | Zone- | Zone- | Zone- | Zone- | Zone- | 6-   | Zone-  | Zone-9 | Zone- | Zone-12 | 4-     | Zone-       | Zone- | Zone- | 3-     | Zone- |                             |
|     |          |                                          | CCRI   | CRS   | CRS   | CRS   | CRS   | NIBG  | Punj | CCRI   | CRS    | CRS   | NIA/ARI | Sindh  | CRS         | CRS   | NAAL  | Baloch | CRS   |                             |
|     |          |                                          | Multa  | B.pur | Sahiw | Khan  | Veha  | F.aba | Aver | Sakran | Ghotki | M.P.K | T.Jam   | Averag | Lasbe       | Sibbi | Kzdr/ | Avera  | D.I.  |                             |
| 1   | 2        | 3                                        | 6      | 7     | 8     | 9     | 10    | 11    | 12   | 13     | 14     | 15    | 16      | 17     | 18          | 19    | 20    | 21     | 22    | 23                          |
| 77  | PC-1806  | GS-Ali-7                                 | 1815   | 1475  | 618   | 3396  | 2081  | 1232  | 1770 | 2657   | 4010   | 2296  | 2490    | 2863   | 2872        | 3030  | 3829  | 3244   | 1518  | 2380                        |
| 78  | PC-1858  | CII-CEMB-101                             | 2618   | 2130  | 1251  | 3397  | 1848  | 1686  | 2155 | 1819   | 1814   | 2296  | 2081    | 2002   | 3947        | 2371  | 3947  | 3421   | 2079  | 2377                        |
| 79  | PC-1897  | FH-155                                   | 2767   | 2414  | 837   | 3290  | 1883  | 1650  | 2140 | 1424   | 3287   | 1579  | 1381    | 1918   | 3710        | 2992  | 3710  | 3470   | 2320  | 2375                        |
| 80  | PC-18117 | Tassco-112                               | 3124   | 1665  | 990   | 3736  | 1884  | 1668  | 2178 | 1735   | 4305   | 1148  | 1688    | 2219   | 3231        | 2616  | 3231  | 3026   | 2210  | 2374                        |
| 81  | PC-18101 | ICI-2424                                 | 2596   | 2022  | 1062  | 3959  | 2224  | 1291  | 2192 | 1364   | 3612   | 2009  | 1930    | 2229   | 2872        | 2920  | 3590  | 3127   | 1670  | 2366                        |
| 82  | PC-1896  | Eye-20                                   | 2785   | 1391  | 1109  | 3431  | 2009  | 1757  | 2080 | 1651   | 2252   | 2870  | 1194    | 1992   | 4069        | 2647  | 3829  | 3515   | 1860  | 2347                        |
| 83  | PC-18106 | Koh-i-Noor                               | 3139   | 1641  | 1341  | 3765  | 2027  | 1757  | 2279 | 1424   | 3503   | 1579  | 1361    | 1967   | 2633        | 2884  | 4428  | 3315   | 1330  | 2344                        |
| 84  | PC-1831  | IUB-69                                   | 2269   | 2083  | 1008  | 2889  | 2009  | 2583  | 2140 | 1627   | 1202   | 2009  | 2059    | 1725   | 3949        | 2992  | 4069  | 3670   | 2030  | 2341                        |
| 85  | PC-1870  | CEMB-Klean                               | 2623   | 2378  | 1206  | 3532  | 1848  | 1883  | 2245 | 1448   | 2815   | 2870  | 1615    | 2187   | 2154        | 2976  | 2992  | 2707   | 2389  | 2338                        |
| 86  | PC-1892  | Cyto-510                                 | 3329   | 1568  | 1098  | 3908  | 2045  | 1990  | 2323 | 1592   | 1540   | 2440  | 1408    | 1745   | 3231        | 2668  | 3710  | 3203   | 2103  | 2331                        |
| 87  | PC-1873  | CKC-3                                    | 3595   | 1860  | 1314  | 3782  | 2153  | 1614  | 2386 | 1496   | 2914   | 2009  | 1354    | 1943   | 2154        | 2912  | 3470  | 2845   | 1900  | 2323                        |
| 88  | PC-1879  | CKC-Sahara-                              | 2882   | 1276  | 1512  | 3598  | 1687  | 1578  | 2089 | 1939   | 2298   | 2009  | 1982    | 2057   | 3351        | 3021  | 3231  | 3201   | 2091  | 2318                        |
| 89  | PC-1857  | CII-CEMB-100                             | 2582   | 1986  | 945   | 3698  | 1884  | 2080  | 2196 | 1855   | 2085   | 2009  | 2108    | 2014   | 2392        | 2684  | 3947  | 3008   | 2067  | 2309                        |
| 90  | PC-1865  | CII-ICI-2222                             | 2923   | 1855  | 936   | 3712  | 1866  | 1668  | 2160 | 1699   | 2045   | 2296  | 1283    | 1831   | 3110        | 2764  | 4066  | 3313   | 1959  | 2299                        |



|     |          |                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|----------|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 91  | PC-1880  | CKC-TJ-Inqilab | 2900 | 1741 | 1008 | 3818 | 2081 | 1704 | 2208 | 1412 | 2656 | 2009 | 1345 | 1856 | 2872 | 2925 | 3710 | 3169 | 1900 | 2291 |
| 92  | PC-1872  | Hatf-1 (CKC)   | 2897 | 1648 | 882  | 3367 | 1848 | 1417 | 2010 | 1903 | 2580 | 2009 | 2099 | 2148 | 2872 | 2631 | 3710 | 3071 | 2198 | 2290 |
| 93  | PC-1874  | CKC-4          | 2929 | 1422 | 1080 | 3698 | 1883 | 1955 | 2161 | 1556 | 2665 | 2440 | 1758 | 2104 | 2872 | 2857 | 2872 | 2867 | 1983 | 2284 |
| 94  | PC-1844  | SLH-19         | 2797 | 1424 | 857  | 3388 | 1507 | 1721 | 1949 | 2003 | 1179 | 2440 | 1345 | 1742 | 3947 | 2833 | 4425 | 3735 | 2055 | 2280 |
| 95  | PC-1850  | Tipu-9         | 1704 | 1101 | 1512 | 2632 | 1507 | 1219 | 1612 | 2716 | 3564 | 2009 | 1624 | 2478 | 3468 | 3130 | 3588 | 3396 | 2079 | 2275 |
| 96  | PC-1846  | Suncrop-5      | 2744 | 2142 | 1179 | 3331 | 1345 | 1829 | 2095 | 1556 | 2763 | 1579 | 1381 | 1820 | 2990 | 3154 | 3947 | 3364 | 1912 | 2275 |
| 97  | PC-1867  | CII-Tahafuz-12 | 2865 | 1604 | 900  | 3430 | 1309 | 1793 | 1984 | 1221 | 4091 | 3157 | 1256 | 2431 | 2512 | 2768 | 3349 | 2876 | 1434 | 2263 |
| 98  | PC-1863  | CII-Badar-2    | 2403 | 1388 | 1098 | 2776 | 1489 | 1919 | 1845 | 1161 | 2594 | 2727 | 1247 | 1932 | 4186 | 2675 | 3947 | 3603 | 1947 | 2254 |
| 99  | PC-1821  | BZU-05         | 2606 | 2614 | 954  | 3095 | 2010 | 2057 | 2223 | 1460 | 1473 | 861  | 2745 | 1635 | 3590 | 2570 | 3590 | 3250 | 1779 | 2243 |
| 100 | PC-1878  | CKC-ICI-2323   | 3020 | 1448 | 1476 | 3357 | 1651 | 1578 | 2088 | 2214 | 2936 | 1148 | 1408 | 1927 | 3111 | 2841 | 3111 | 3021 | 1864 | 2226 |
| 101 | PC-1864  | CII-CEMB-102   | 2385 | 1508 | 1056 | 3567 | 1471 | 1937 | 1987 | 1496 | 3165 | 2296 | 1426 | 2096 | 2990 | 2300 | 3947 | 3079 | 1577 | 2223 |
| 102 | PC-18102 | IR-NIBGE-12    | 2659 | 1237 | 1392 | 2966 | 1884 | 1739 | 1979 | 1268 | 3412 | 1148 | 1548 | 1844 | 3829 | 3024 | 3829 | 3561 | 1109 | 2217 |
| 103 | PC-1860  | Sahara-2020    | 2493 | 1149 | 1314 | 3549 | 1668 | 1578 | 1959 | 1795 | 2441 | 1866 | 1659 | 1940 | 2990 | 2658 | 3588 | 3079 | 2222 | 2212 |
| 104 | PC-1804  | TH-88/11       | 1614 | 1534 | 698  | 3083 | 1830 | 1375 | 1689 | 2142 | 2795 | 2440 | 2702 | 2520 | 2154 | 3410 | 3231 | 2932 | 1931 | 2210 |
| 105 | PC-1891  | Crystal-20     | 2605 | 1860 | 810  | 3608 | 2404 | 2008 | 2216 | 1328 | 1540 | 1579 | 1139 | 1396 | 3470 | 2438 | 4188 | 3365 | 1852 | 2202 |
| 106 | PC-1875  | CKC-Clean      | 2673 | 1462 | 648  | 3330 | 1866 | 1883 | 1977 | 1244 | 1586 | 2009 | 1534 | 1593 | 4069 | 2930 | 3231 | 3410 | 1971 | 2174 |
| 107 | PC-18108 | MZM-7          | 3157 | 1653 | 1242 | 3667 | 2386 | 1811 | 2319 | 778  | 2274 | 1148 | 923  | 1281 | 2992 | 2487 | 3590 | 3023 | 1725 | 2131 |
| 108 | PC-1862  | TJ-MAX (CII)   | 2206 | 2046 | 818  | 3026 | 1722 | 1417 | 1873 | 1675 | 1518 | 2870 | 1372 | 1859 | 2272 | 2468 | 3947 | 2896 | 2222 | 2113 |
| 109 | PC-1811  | GS-Ali-9       | 980  | 1213 | 593  | 2412 | 1058 | 1211 | 1245 | 1927 | 2576 | 2296 | 2379 | 2294 | 2752 | 3197 | 4308 | 3419 | 2057 | 2068 |
| 110 | PC-18105 | IUB-71         | 2501 | 1641 | 1161 | 3174 | 2045 | 1237 | 1960 | 790  | 2614 | 1435 | 783  | 1406 | 3590 | 3188 | 3710 | 3496 | 1050 | 2066 |
| 111 | PC-18116 | SLH-33         | 2458 | 1736 | 857  | 3124 | 1309 | 1291 | 1796 | 1149 | 2601 | 2440 | 984  | 1793 | 2633 | 2241 | 3829 | 2901 | 1815 | 2033 |
| 112 | PC-18111 | NS-201         | 2316 | 999  | 891  | 2659 | 1704 | 1255 | 1637 | 802  | 3908 | 1005 | 1173 | 1722 | 4188 | 2798 | 3710 | 3565 | 929  | 2024 |
| 113 | PC-1845  | SLH-6          | 2313 | 1101 | 1120 | 2776 | 1669 | 1757 | 1789 | 1221 | 1629 | 2440 | 762  | 1513 | 2751 | 2989 | 3349 | 3029 | 1709 | 1970 |
| 114 | PC-1835  | NIA-85         | 1668 | 1366 | 814  | 1904 | 1184 | 2009 | 1491 | 1855 | 528  | 1292 | 2404 | 1519 | 3231 | 3235 | 3710 | 3392 | 1869 | 1933 |

|     |         |                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|---------|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 115 | PC-1805 | CIM-620 (Std.) | 1791 | 1760 | 630  | 3452 | 1345 | 1641 | 1770 | ~    | ~    | ~    | ~    | ~    | ~    | ~    | ~    | ~    | 1695 | 1759 |
|     |         |                | 2860 | 1865 | 1159 | 3552 | 2115 | 2001 | 2259 | 2131 | 2921 | 2286 | 2009 | 2337 | 3307 | 2825 | 3747 | 3293 | 2003 | 2483 |

\*Figure is the average of four differenttt values of the standard variety (PC-1820, PC-1847, PC-1877, PC-18104)

\*\*Figure is the average of four differenttt values of the standard variety (PC-1829, PC-1856, PC-1886, PC-18113)

**Note:** Errors and Ommissions are acceptable.

**\*\*Whole entries claimed as Non-Bt, including both Standards, were detected as Bt with low to average Trait Purity and Toxin Expression.**

(Dr. Tassawar Hussain Malik) Director Research Headquarters

1/4/2019



# DIRECTORATE OF AGRONOMY

AYUB AGRICULTURAL RESEARCH INSTITUTE FAISALABAD  
Ph:041-9201676, Fax:041-9201677, darifsd84@gmail.com



ڈائریکٹوریٹ آف اگرا نومی

ایوب زرعی تحقیقاتی ادارہ، فیصل آباد

No. 310 /

Dated Faisalabad, the:

22-1-2019

To

The Deputy Director Coordination/Gen  
Punjab Seed Corporation  
4-Lyton Road, Lahore

Subject: **FIBRE QUALITY ANALYSES REPORT OF COTTON SPOT  
EXAMINATION -2018**

Kindly find enclosed herewith fibre quality analyses report of (47) lint samples of Cotton genotypes taken during spot examination held on 22<sup>nd</sup> October, 2018.

**DIRECTOR**

Agronomic Research Institute  
Faisalabad

CC:

Director General Agri. (Research) Ayub Agricultural Research Institute,  
Faisalabad

|                                             |
|---------------------------------------------|
| DA (R)                                      |
| DDR                                         |
| DD (A&A)                                    |
| ARO (Tech)                                  |
| AD (Admin)                                  |
| AD (A.C.)                                   |
| AD (Planning) ✓                             |
| AD (Audit)                                  |
|                                             |
| Diary No. <u>1261</u><br><u>22 JAN 2019</u> |
| DGA (R)                                     |

No. 2300 /Plan./

Dated Faisalabad, the 24-1-2019

Forwarded to Director, Agri. Biotechnology Research Institute,  
Faisalabad for information and further necessary action.

**DIRECTOR AGRI. (RESEARCH)**

for DIRECTOR GENERAL AGRI. (RESEARCH)

| Spot Examination of cotton held on 22.10.2018 at PSC Farms, Khanewal |                     |               |                |                     |                 |         |
|----------------------------------------------------------------------|---------------------|---------------|----------------|---------------------|-----------------|---------|
| Micronaire                                                           |                     |               |                |                     |                 |         |
| #                                                                    | Genotype Name       | CRI<br>Multan | CCRI<br>Multan | NIBGE<br>Faisalabad | APTMA<br>Lahore | Average |
| 1                                                                    | SLH-19              | 4.8           | 4.6            | 4.6                 | 4.7             | 4.68    |
| 2                                                                    | BZU-05              | 5.3           | 5.4            | 5.71                | 4.7             | 5.28    |
| 3                                                                    | CEMB-100            | 4.9           | 4.8            | 5.16                | 4.6             | 4.87    |
| 4                                                                    | CEMB-101            | 4.9           | 5.5            | 4.63                | 5.0             | 5.01    |
| 5                                                                    | Ghauri-I            | 5.1           | 5.2            | 5.17                | 5.4             | 5.22    |
| 6                                                                    | Hataf-I             | 5.0           | 4.7            | 4.86                | 4.8             | 4.84    |
| 7                                                                    | AA-933              | 4.6           | 4.9            | 4.44                | 4.7             | 4.66    |
| 8                                                                    | Auriga-2016         | 4.6           | 4.6            | 4.68                | 4.7             | 4.65    |
| 9                                                                    | TJ-Max              | 4.9           | 4.9            | 4.42                | 4.2             | 4.61    |
| 10                                                                   | NS-191              | 4.8           | 4.7            | 4.41                | 4.5             | 4.60    |
| 11                                                                   | Bahar-2007          | 4.6           | 4.4            | 4.46                | 4.6             | 4.52    |
| 12                                                                   | Bahar-2017          | 5.0           | 4.5            | 4.80                | 4.7             | 4.75    |
| 13                                                                   | BS-18               | 4.7           | 4.8            | 4.48                | 4.7             | 4.67    |
| 14                                                                   | Badar-I             | 4.2           | 4.3            | 4.20                | 4.5             | 4.30    |
| 15                                                                   | ICI-2121            | 4.5           | 4.8            | 4.98                | 5.0             | 4.82    |
| 16                                                                   | Eagle-II            | 4.4           | 4.1            | 4.85                | 4.6             | 4.49    |
| 17                                                                   | Bakhtavar-II        | 4.8           | 5.3            | 4.89                | 5.0             | 5.00    |
| 18                                                                   | C11 Tahaffuz-10     | 4.5           | 4.8            | 4.59                | 5.0             | 4.72    |
| 19                                                                   | Sitara-16           | 4.5           | 4.9            | 4.62                | 5.0             | 4.76    |
| 20                                                                   | Weal Ag-5           | 5.1           | 4.5            | 4.66                | 4.8             | 4.77    |
| 21                                                                   | Weal Ag-6           | 4.1           | 4.8            | 5.00                | 4.9             | 4.70    |
| 22                                                                   | Weal Ag-1606        | 5.9           | 4.4            | 4.51                | 4.3             | 4.78    |
| 23                                                                   | Weal Ag gold        | 4.5           | 4.6            | 4.80                | 4.7             | 4.65    |
| 24                                                                   | CIM-717             | 5.1           | 5.1            | 4.90                | 4.7             | 4.95    |
| 25                                                                   | UAF PB-896          | 4.9           | 5.0            | 4.87                | 4.9             | 4.92    |
| 26                                                                   | NIAB-444            | 4.9           | 4.5            | 5.10                | 5.0             | 4.88    |
| 27                                                                   | G.S Ali-7           | 4.1           | 4.0            | 4.71                | 4.4             | 4.30    |
| 28                                                                   | CEMB clean Cotton 1 | 4.7           | 4.8            | 4.65                | 5.2             | 4.84    |
| 29                                                                   | CEMB clean Cotton 2 | 5.5           | 5.3            | 5.29                | 5.2             | 5.32    |
| 30                                                                   | NIAB-898            | 4.7           | 5.1            | 4.76                | 5.0             | 4.89    |
| 31                                                                   | IR NIBGE-2          | 4.5           | 4.4            | 4.61                | 4.7             | 4.55    |
| 32                                                                   | FH-490              | 4.1           | 4.1            | 4.55                | 4.3             | 4.26    |
| 33                                                                   | FH-444              | 4.1           | 4.5            | 4.81                | 4.6             | 4.50    |
| 34                                                                   | RH-AFNAN            | 4.6           | 4.6            | 4.88                | 5.0             | 4.77    |
| 35                                                                   | RH-Manthar          | 4.7           | 4.9            | 4.67                | 4.7             | 4.74    |
| 36                                                                   | VH-189              | 5.1           | 5.0            | 5.42                | 5.1             | 5.16    |
| 37                                                                   | VH-383              | 4.7           | 4.6            | 4.85                | 4.7             | 4.71    |
| 38                                                                   | BH-221              | 4.6           | 4.5            | 4.23                | 4.6             | 4.48    |
| 39                                                                   | MNH-1016            | 4.5           | 4.7            | 4.27                | 4.2             | 4.42    |
| 40                                                                   | MNH-1020            | 4.9           | 4.5            | 4.83                | 4.5             | 4.68    |
| 41                                                                   | MNH-1026            | 4.7           | 4.4            | 4.64                | 4.3             | 4.51    |
| 42                                                                   | IUB-69              | 5.4           | 6.0            | 5.59                | 5.1             | 5.52    |
| 43                                                                   | CIM-663             | 4.5           | 4.6            | 4.44                | 4.5             | 4.51    |
| 44                                                                   | CIM-343             | 4.9           | 4.6            | 4.78                | 4.9             | 4.80    |
| 45                                                                   | Cyto-515            | 5.3           | 5.4            | 5.16                | 5.1             | 5.24    |
| 46                                                                   | Cyto-225            | 4.2           | 3.9            | 4.43                | 4.4             | 4.23    |
| 47                                                                   | SLH-06              | 4.4           | 4.4            | 4.58                | 4.5             | 4.47    |

*M. J. Khan*



| Spot Examination of cotton held on 22.10.2018 at PSC Farms, Khanewal |                     |               |                |                     |                 |         |
|----------------------------------------------------------------------|---------------------|---------------|----------------|---------------------|-----------------|---------|
| Staple Length (mm)                                                   |                     |               |                |                     |                 |         |
| #                                                                    | Genotype Name       | CRI<br>Multan | CCRI<br>Multan | NIBGE<br>Faisalabad | APTMA<br>Lahore | Average |
| 1                                                                    | SLH-19              | 27.7          | 27.1           | 28.3                | 27.43           | 27.63   |
| 2                                                                    | BZU-05              | 28            | 26.4           | 27.87               | 25.91           | 27.04   |
| 3                                                                    | CEMB-100            | 28.5          | 28.4           | 28                  | 26.67           | 27.89   |
| 4                                                                    | CEMB-101            | 28.6          | 26.9           | 27.69               | 26.16           | 27.34   |
| 5                                                                    | Ghauri-I            | 26            | 24             | 26.98               | 25.4            | 25.60   |
| 6                                                                    | Hataf-I             | 24.5          | 28.1           | 27.5                | 25.91           | 26.50   |
| 7                                                                    | AA-933              | 25.2          | 27             | 27.16               | 26.92           | 26.57   |
| 8                                                                    | Auriga-2016         | 27.2          | 26.2           | 26.46               | 25.4            | 26.32   |
| 9                                                                    | TJ-Max              | 27.5          | 25.7           | 27.43               | 26.16           | 26.70   |
| 10                                                                   | NS-191              | 25.9          | 24.7           | 27.72               | 26.16           | 26.12   |
| 11                                                                   | Bahar-2007          | 25.2          | 28.4           | 25.93               | 26.42           | 26.49   |
| 12                                                                   | Bahar-2017          | 28.1          | 28.3           | 28.11               | 26.67           | 27.80   |
| 13                                                                   | BS-18               | 28.2          | 27.2           | 28.23               | 26.67           | 27.58   |
| 14                                                                   | Badar-I             | 26.7          | 26.2           | 27.47               | 27.69           | 27.01   |
| 15                                                                   | ICI-2121            | 27.7          | 27.5           | 28.86               | 27.69           | 27.94   |
| 16                                                                   | Eagle-II            | 29.5          | 27.5           | 29.11               | 26.67           | 28.20   |
| 17                                                                   | Bakhtavar-II        | 28.4          | 26.9           | 28.42               | 27.69           | 27.85   |
| 18                                                                   | C11 Tahaffuz-10     | 27.9          | 27.3           | 28.15               | 24.89           | 27.06   |
| 19                                                                   | Sitara-16           | 26.9          | 25.6           | 26.8                | 25.91           | 26.30   |
| 20                                                                   | Weal Ag-5           | 26.9          | 26.1           | 27.33               | 27.18           | 26.88   |
| 21                                                                   | Weal Ag-6           | 28.8          | 23.2           | 27.09               | 27.94           | 26.76   |
| 22                                                                   | Weal Ag-1606        | 28            | 28             | 28                  | 23.88           | 26.97   |
| 23                                                                   | Weal Ag gold        | 25.1          | 25             | 28.23               | 27.18           | 26.38   |
| 24                                                                   | CIM-717             | 26.1          | 26.2           | 27.87               | 25.91           | 26.52   |
| 25                                                                   | UAF PB-896          | 26.3          | 28.2           | 26.49               | 25.91           | 26.72   |
| 26                                                                   | NIAB-444            | 26            | 27.7           | 28.2                | 26.92           | 27.21   |
| 27                                                                   | G.S Ali-7           | 28.8          | 26.5           | 27.75               | 26.92           | 27.49   |
| 28                                                                   | CEMB clean Cotton 1 | 29.5          | 29.6           | 29.5                | 27.43           | 29.01   |
| 29                                                                   | CEMB clean Cotton 2 | 25.7          | 23.9           | 24.36               | 27.43           | 25.35   |
| 30                                                                   | NIAB-898            | 28.1          | 27.3           | 28.77               | 23.62           | 26.95   |
| 31                                                                   | IR NIBGE-2          | 28.5          | 28.7           | 29.39               | 27.18           | 28.44   |
| 32                                                                   | FH-490              | 29.1          | 28.5           | 28.04               | 26.92           | 28.14   |
| 33                                                                   | FH-444              | 28.7          | 29.2           | 29.03               | 27.43           | 28.59   |
| 34                                                                   | RH-AFNAN            | 25.8          | 25.5           | 25.86               | 27.94           | 26.28   |
| 35                                                                   | RH-Manthar          | 26.3          | 26.9           | 27.54               | 25.4            | 26.54   |
| 36                                                                   | VH-189              | 27            | 27.9           | 29.25               | 26.16           | 27.58   |
| 37                                                                   | VH-383              | 26.9          | 28.4           | 29.32               | 26.67           | 27.82   |
| 38                                                                   | BH-221              | 25.2          | 26.6           | 27.31               | 27.69           | 26.70   |
| 39                                                                   | MNH-1016            | 29.4          | 28.1           | 28.59               | 25.91           | 28.00   |
| 40                                                                   | MNH-1020            | 28.1          | 28.2           | 28.87               | 27.18           | 28.09   |
| 41                                                                   | MNH-1026            | 28            | 28.3           | 28.81               | 27.69           | 28.20   |
| 42                                                                   | IUB-69              | 27.7          | 28.1           | 28.5                | 27.43           | 27.93   |
| 43                                                                   | CIM-663             | 25.6          | 28.8           | 27.01               | 27.18           | 27.15   |
| 44                                                                   | CIM-343             | 27.4          | 26.9           | 28.07               | 25.91           | 27.07   |
| 45                                                                   | Cyto-515            | 26.6          | 26.4           | 25.33               | 27.18           | 26.38   |
| 46                                                                   | Cyto-225            | 29.9          | 28.7           | 29.02               | 25.65           | 28.32   |
| 47                                                                   | SLH-06              | 27            | 27             | 27.86               | 27.94           | 27.45   |

*M. A. Khan*

| Spot Examination of cotton held on 22.10.2018 at PSC Farms, Khanewal |                     |               |                |                     |                 |         |
|----------------------------------------------------------------------|---------------------|---------------|----------------|---------------------|-----------------|---------|
| Fibre Strength (g/tex)                                               |                     |               |                |                     |                 |         |
| #                                                                    | Genotype Name       | CRI<br>Multan | CCRI<br>Multan | NIBGE<br>Faisalabad | APTMA<br>Lahore | Average |
| 1                                                                    | SLH-19              | 30            | 28.3           | 39.1                | 25.7            | 30.78   |
| 2                                                                    | BZU-05              | 33.8          | 27.6           | 31.6                | 29.5            | 30.63   |
| 3                                                                    | CEMB-100            | 31.4          | 30.2           | 35.2                | 26.4            | 30.80   |
| 4                                                                    | CEMB-101            | 34.3          | 25.7           | 32.1                | 25.5            | 29.40   |
| 5                                                                    | Ghauri-I            | 35.7          | 26.9           | 39.1                | 24.2            | 31.48   |
| 6                                                                    | Hataf-I             | 27.3          | 28.5           | 31.1                | 23.8            | 27.68   |
| 7                                                                    | AA-933              | 30.8          | 28.6           | 31.1                | 25              | 28.88   |
| 8                                                                    | Auriga-2016         | 29            | 26.2           | 30.6                | 30.6            | 29.10   |
| 9                                                                    | TJ-Max              | 32            | 26.1           | 35.4                | 28.7            | 30.55   |
| 10                                                                   | NS-191              | 38.9          | 28.2           | 36.8                | 27.8            | 32.93   |
| 11                                                                   | Bahar-2007          | 25.8          | 29.5           | 27.6                | 29              | 27.98   |
| 12                                                                   | Bahar-2017          | 35.1          | 27.5           | 35.4                | 28.9            | 31.73   |
| 13                                                                   | BS-18               | 33            | 28.5           | 35.8                | 28.1            | 31.35   |
| 14                                                                   | Badar-I             | 30.4          | 25.2           | 32.2                | 24.6            | 28.10   |
| 15                                                                   | ICI-2121            | 31.7          | 28.6           | 37                  | 27.4            | 31.18   |
| 16                                                                   | Eagle-II            | 32.1          | 28.9           | 36                  | 30.3            | 31.83   |
| 17                                                                   | Bakhtavar-II        | 35.3          | 28.7           | 39.3                | 30.4            | 33.43   |
| 18                                                                   | C11 Tahaffuz-10     | 34.5          | 27.4           | 32                  | 29.7            | 30.90   |
| 19                                                                   | Sitara-16           | 33.5          | 27.1           | 31.9                | 23.3            | 28.95   |
| 20                                                                   | Weal Ag-5           | 38.9          | 28.1           | 35.4                | 22.8            | 31.30   |
| 21                                                                   | Weal Ag-6           | 28.1          | 25.1           | 30.8                | 27.8            | 27.95   |
| 22                                                                   | Weal Ag-1606        | 25.8          | 30.7           | 32.5                | 23.4            | 28.10   |
| 23                                                                   | Weal Ag gold        | 30.1          | 26.2           | 36.4                | 28              | 30.18   |
| 24                                                                   | CIM-717             | 30.9          | 28.2           | 35.1                | 29.7            | 30.98   |
| 25                                                                   | UAF PB-896          | 30            | 30.9           | 37.2                | 25              | 30.78   |
| 26                                                                   | NIAB-444            | 29.3          | 29.5           | 39.6                | 26.9            | 31.33   |
| 27                                                                   | G.S Ali-7           | 29            | 28.6           | 31.7                | 23.9            | 28.30   |
| 28                                                                   | CEMB clean Cotton 1 | 35.9          | 29.2           | 37.7                | 25.4            | 32.05   |
| 29                                                                   | CEMB clean Cotton 2 | 30.2          | 24.9           | 23.7                | 24.4            | 25.80   |
| 30                                                                   | NIAB-898            | 31.1          | 27.1           | 32.1                | 27.5            | 29.45   |
| 31                                                                   | IR NIBGE-2          | 32.8          | 28.4           | 40.3                | 23              | 31.13   |
| 32                                                                   | FH-490              | 38            | 26.5           | 35.7                | 24.1            | 31.08   |
| 33                                                                   | FH-444              | 42            | 28.3           | 34.2                | 25.6            | 32.53   |
| 34                                                                   | RH-AFNAN            | 29            | 26.9           | 32                  | 29.1            | 29.25   |
| 35                                                                   | RH-Manthar          | 31.8          | 27.5           | 33.8                | 28.3            | 30.35   |
| 36                                                                   | VH-189              | 33.4          | 28.4           | 33.2                | 29.9            | 31.23   |
| 37                                                                   | VH-383              | 33.7          | 30.1           | 37.7                | 26.7            | 32.05   |
| 38                                                                   | BH-221              | 25.1          | 28             | 33.9                | 28              | 28.75   |
| 39                                                                   | MNH-1016            | 35.2          | 29.4           | 34.8                | 25.9            | 31.33   |
| 40                                                                   | MNH-1020            | 37.2          | 30.3           | 38.8                | 29.2            | 33.88   |
| 41                                                                   | MNH-1026            | 35.4          | 30.8           | 37                  | 32.4            | 33.90   |
| 42                                                                   | IUB-69              | 38            | 28.7           | 34.8                | 29.7            | 32.80   |
| 43                                                                   | CIM-663             | 38.6          | 27.6           | 34.1                | 26.8            | 31.78   |
| 44                                                                   | CIM-343             | 36.3          | 28.4           | 35.9                | 27.9            | 32.13   |
| 45                                                                   | Cyto-515            | 30.7          | 28.3           | 26.8                | 29.1            | 28.73   |
| 46                                                                   | Cyto-225            | 40            | 30.7           | 41.3                | 25.9            | 34.48   |
| 47                                                                   | SLH-06              | 37.1          | 29.3           | 35.1                | 25.7            | 31.80   |

*M. Iqbal*

| Spot Examination of cotton held on 22.10.2018 at PSC Farms, Khanewal |                     |               |                |                     |                 |         |
|----------------------------------------------------------------------|---------------------|---------------|----------------|---------------------|-----------------|---------|
| Fibre Uniformity (%)                                                 |                     |               |                |                     |                 |         |
| #                                                                    | Genotype Name       | CRI<br>Multan | CCRI<br>Multan | NIBGE<br>Faisalabad | APTMA<br>Lahore | Average |
| 1                                                                    | SLH-19              | 79.3          | 84.9           | 83                  | 80.5            | 81.93   |
| 2                                                                    | BZU-05              | 83.8          | 84.8           | 82.8                | 80              | 82.85   |
| 3                                                                    | CEMB-100            | 80.1          | 85.4           | 84                  | 80.2            | 82.43   |
| 4                                                                    | CEMB-101            | 84.5          | 85             | 83.7                | 80              | 83.30   |
| 5                                                                    | Ghauri-I            | 79.5          | 82.4           | 80.8                | 79.7            | 80.60   |
| 6                                                                    | Hataf-I             | 80            | 80.9           | 82                  | 80              | 80.73   |
| 7                                                                    | AA-933              | 79.1          | 83.8           | 82.4                | 80.3            | 81.40   |
| 8                                                                    | Auriga-2016         | 80.7          | 84.9           | 80.9                | 79.7            | 81.55   |
| 9                                                                    | TJ-Max              | 81.3          | 84.3           | 82.7                | 80.1            | 82.10   |
| 10                                                                   | NS-191              | 79.1          | 83.4           | 83.4                | 80.4            | 81.58   |
| 11                                                                   | Bahar-2007          | 78.3          | 82.8           | 80                  | 80              | 80.28   |
| 12                                                                   | Bahar-2017          | 84.5          | 83.2           | 82.6                | 80.1            | 82.60   |
| 13                                                                   | BS-18               | 84            | 84.8           | 83.4                | 80.2            | 83.10   |
| 14                                                                   | Badar-I             | 79.3          | 83.1           | 82.2                | 80.3            | 81.23   |
| 15                                                                   | ICI-2121            | 84            | 83.4           | 82.9                | 80.6            | 82.73   |
| 16                                                                   | Eagle-II            | 84.7          | 86.6           | 82.7                | 80.6            | 83.65   |
| 17                                                                   | Bakhtavar-II        | 84.4          | 83.5           | 83.6                | 80.2            | 82.93   |
| 18                                                                   | C11 Tahaffuz-10     | 80.8          | 82.8           | 83.1                | 80.7            | 81.85   |
| 19                                                                   | Sitara-16           | 79.5          | 84             | 82.7                | 79.4            | 81.40   |
| 20                                                                   | Weal Ag-5           | 80.3          | 81.1           | 81                  | 79.9            | 80.58   |
| 21                                                                   | Weal Ag-6           | 85.1          | 81.6           | 79.7                | 79              | 81.35   |
| 22                                                                   | Weal Ag-1606        | 83            | 84.2           | 83.2                | 80.4            | 82.70   |
| 23                                                                   | Weal Ag gold        | 78.7          | 84.9           | 85                  | 79.9            | 82.13   |
| 24                                                                   | CIM-717             | 79            | 81.7           | 82                  | 79.9            | 80.65   |
| 25                                                                   | UAF PB-896          | 80.3          | 83.7           | 82.5                | 80.3            | 81.70   |
| 26                                                                   | NIAB-444            | 79.5          | 84.5           | 82.9                | 80.3            | 81.80   |
| 27                                                                   | G.S Ali-7           | 84.7          | 81.3           | 81.2                | 80.5            | 81.93   |
| 28                                                                   | CEMB clean Cotton 1 | 85.3          | 84.9           | 83.1                | 80.6            | 83.48   |
| 29                                                                   | CEMB clean Cotton 2 | 79.7          | 81.7           | 80.6                | 78.9            | 80.23   |
| 30                                                                   | NIAB-898            | 80.7          | 83.9           | 83.7                | 80.4            | 82.18   |
| 31                                                                   | IR NIBGE-2          | 81.6          | 85.4           | 82.3                | 80.3            | 82.40   |
| 32                                                                   | FH-490              | 83.4          | 84.7           | 84.3                | 80.5            | 83.23   |
| 33                                                                   | FH-444              | 83.5          | 85.3           | 85                  | 80.7            | 83.63   |
| 34                                                                   | RH-AFNAN            | 78.2          | 84.9           | 81                  | 79.6            | 80.93   |
| 35                                                                   | RH-Manthar          | 77.1          | 85.4           | 83.7                | 80              | 81.55   |
| 36                                                                   | VH-189              | 79.5          | 86.3           | 84.9                | 80.2            | 82.73   |
| 37                                                                   | VH-383              | 79.1          | 83.7           | 84.4                | 80.6            | 81.95   |
| 38                                                                   | BH-221              | 77            | 82.6           | 81.3                | 79.9            | 80.20   |
| 39                                                                   | MNH-1016            | 83.9          | 86.3           | 85.1                | 80.4            | 83.93   |
| 40                                                                   | MNH-1020            | 82.7          | 84.2           | 84.9                | 80.6            | 83.10   |
| 41                                                                   | MNH-1026            | 81            | 84.9           | 85                  | 80.5            | 82.85   |
| 42                                                                   | IUB-69              | 80.3          | 84.6           | 83.6                | 80.4            | 82.23   |
| 43                                                                   | CIM-663             | 77            | 84             | 84.2                | 79.9            | 81.28   |
| 44                                                                   | CIM-343             | 79.1          | 82.9           | 81.1                | 80.4            | 80.88   |
| 45                                                                   | Cyto-515            | 78.6          | 86             | 81.4                | 79.8            | 81.45   |
| 46                                                                   | Cyto-225            | 84.9          | 82             | 83.2                | 80.8            | 82.73   |
| 47                                                                   | SLH-06              | 80.1          | 83.8           | 82.8                | 80.3            | 81.75   |

*M. A. Khan*

## Spot Examination of cotton held on 22.10.2018 at PSC Farms, Khanewal

## FIBRE QUALITY REPORT- SUMMARY

| #  | Genotype Name       | GOT (%) | Mic. | Staple Length (mm) | Fibre Strength (g/tex) | Fibre Uniformity (%) | Fibre Maturity (%) |
|----|---------------------|---------|------|--------------------|------------------------|----------------------|--------------------|
| 1  | SLH-19              | 42.00   | 4.68 | 27.63              | 30.78                  | 81.93                | 93.00              |
| 2  | BZU-05              | 40.00   | 5.28 | 27.04              | 30.63                  | 82.85                | 99.00              |
| 3  | CEMB-100            | 42.00   | 4.87 | 27.89              | 30.80                  | 82.43                | 98.00              |
| 4  | CEMB-101            | 42.00   | 5.01 | 27.34              | 29.40                  | 83.30                | 91.00              |
| 5  | Ghauri-I            | 39.00   | 5.22 | 25.60              | 31.48                  | 80.60                | 99.00              |
| 6  | Hataf-I             | 41.00   | 4.84 | 26.50              | 27.68                  | 80.73                | 94.00              |
| 7  | AA-933              | 43.00   | 4.66 | 26.57              | 28.88                  | 81.40                | 94.00              |
| 8  | Auriga-2016         | 40.00   | 4.65 | 26.32              | 29.10                  | 81.55                | 88.00              |
| 9  | TJ-Max              | 41.00   | 4.61 | 26.70              | 30.55                  | 82.10                | 87.00              |
| 10 | NS-191              | 39.00   | 4.60 | 26.12              | 32.93                  | 81.58                | 93.00              |
| 11 | Bahar-2007          | 43.00   | 4.52 | 26.49              | 27.98                  | 80.28                | 94.00              |
| 12 | Bahar-2017          | 39.00   | 4.75 | 27.80              | 31.73                  | 82.60                | 96.00              |
| 13 | BS-18               | 40.00   | 4.67 | 27.58              | 31.35                  | 83.10                | 96.00              |
| 14 | Badar-I             | 42.00   | 4.30 | 27.01              | 28.10                  | 81.23                | 98.00              |
| 15 | ICI-2121            | 42.00   | 4.82 | 27.94              | 31.18                  | 82.73                | 93.00              |
| 16 | Eagle-II            | 41.00   | 4.49 | 28.20              | 31.83                  | 83.65                | 96.00              |
| 17 | Bakhtavar-II        | 43.00   | 5.00 | 27.85              | 33.43                  | 82.93                | 98.00              |
| 18 | C11 Tahaffuz-10     | 39.00   | 4.72 | 27.06              | 30.90                  | 81.85                | 96.00              |
| 19 | Sitara-16           | 41.00   | 4.76 | 26.30              | 28.95                  | 81.40                | 93.00              |
| 20 | Weal Ag-5           | 40.00   | 4.77 | 26.88              | 31.30                  | 80.58                | 94.00              |
| 21 | Weal Ag-6           | 43.00   | 4.70 | 26.76              | 27.95                  | 81.35                | 98.00              |
| 22 | Weal Ag-1606        | 41.00   | 4.78 | 26.97              | 28.10                  | 82.70                | 97.00              |
| 23 | Weal Ag gold        | 39.00   | 4.65 | 26.38              | 30.18                  | 82.13                | 91.00              |
| 24 | CIM-717             | 42.00   | 4.95 | 26.52              | 30.98                  | 80.65                | 89.00              |
| 25 | UAF PB-896          | 42.00   | 4.92 | 26.72              | 30.78                  | 81.70                | 93.00              |
| 26 | NIAB-444            | 41.00   | 4.88 | 27.21              | 31.33                  | 81.80                | 91.00              |
| 27 | G.S Ali-7           | 41.00   | 4.30 | 27.49              | 28.30                  | 81.93                | 97.00              |
| 28 | CEMB clean Cotton 1 | 42.00   | 4.84 | 29.01              | 32.05                  | 83.48                | 99.00              |
| 29 | CEMB clean Cotton 2 | 42.00   | 5.32 | 25.35              | 25.80                  | 80.23                | 88.00              |
| 30 | NIAB-898            | 43.00   | 4.89 | 26.95              | 29.45                  | 82.18                | 93.00              |
| 31 | IR NIBGE-2          | 39.00   | 4.55 | 28.44              | 31.13                  | 82.40                | 97.00              |
| 32 | FH-490              | 43.00   | 4.26 | 28.14              | 31.08                  | 83.23                | 99.00              |
| 33 | FH-444              | 43.00   | 4.50 | 28.59              | 32.53                  | 83.63                | 97.00              |
| 34 | RH-AFNAN            | 38.00   | 4.77 | 26.28              | 29.25                  | 80.93                | 91.00              |
| 35 | RH-Manthar          | 40.00   | 4.74 | 26.54              | 30.35                  | 81.55                | 88.00              |
| 36 | VH-189              | 38.00   | 5.16 | 27.58              | 31.23                  | 82.73                | 89.00              |
| 37 | VH-383              | 41.00   | 4.71 | 27.82              | 32.05                  | 81.95                | 90.00              |
| 38 | BH-221              | 40.00   | 4.48 | 26.70              | 28.75                  | 80.20                | 91.00              |
| 39 | MNH-1016            | 43.00   | 4.42 | 28.00              | 31.33                  | 83.93                | 99.00              |
| 40 | MNH-1020            | 43.00   | 4.68 | 28.09              | 33.88                  | 83.10                | 97.00              |
| 41 | MNH-1026            | 42.00   | 4.51 | 28.20              | 33.90                  | 82.85                | 97.00              |
| 42 | IUB-69              | 40.00   | 5.52 | 27.93              | 32.80                  | 82.23                | 90.00              |
| 43 | CIM-663             | 41.00   | 4.51 | 27.15              | 31.78                  | 81.28                | 87.00              |
| 44 | CIM-343             | 42.00   | 4.80 | 27.07              | 32.13                  | 80.88                | 89.00              |
| 45 | Cyto-515            | 37.00   | 5.24 | 26.38              | 28.73                  | 81.45                | 89.00              |
| 46 | Cyto-225            | 41.00   | 4.23 | 28.32              | 34.48                  | 82.73                | 98.00              |
| 47 | SLH-06              | 42.00   | 4.47 | 27.45              | 31.80                  | 81.75                | 93.00              |

No.No.F.PCCC/DR(357)/ARSC-2019/791 dated1-4-2019

**Pakistan Central Cotton Committee (PCCC)**

Directorate of Agricultural Research (DAR)

**2018 NCVT - BCT Test Results from Reference Labs**

**Annexure-VIII: Test-1: Summary of Testing Results for **Cry1ac** Gene (Event **MON-531**) **Bollgard-I** Technology**

| Sr. | Codes   | Varities   | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                  |                                | 2- ABRI-Faisalabad                 |                  |                                | 3- NIBGE-Faisalabad                |                  |                                | Average of 3 Labs                  |                  |                                | Remarks  |               |
|-----|---------|------------|---------------|-------------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|----------|---------------|
|     |         |            |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Purity * | Expression ** |
| 1   | 2       | 3          | 4             | 5                                   | 6                                  | 7                | 8                              | 9                                  | 10               | 11                             | 12                                 | 13               | 14                             | 15                                 | 16               | 17                             | 18       | 19            |
| 1   | PC-1801 | CIM-717    | Non-Bt        | Nil                                 | +                                  | 100              | 0.75                           | -                                  | 0                | 0.00                           | +                                  | 20               | 1.96                           | +                                  | 40               | 0.90                           | Low      | Low           |
| 2   | PC-1802 | Cyto-225   | Non-Bt        | Nil                                 | +                                  | 100              | 1.86                           | -                                  | 0                | 0.00                           | -                                  | NT               | NT                             | -                                  | 33               | 0.93                           | Low      | Low           |
| 3   | PC-1803 | CRIS-613   | Non-Bt        | Nil                                 | +                                  | 100              | 1.25                           | -                                  | 0                | 0.00                           | -                                  | NT               | NT                             | -                                  | 33               | 0.63                           | Low      | Low           |
| 4   | PC-1804 | TH-88/11   | Non-Bt        | Nil                                 | -                                  | 25               | 1.88                           | +                                  | 100              | 5.34                           | +                                  | 20               | 1.66                           | +                                  | 48               | 2.96                           | Low      | High          |
| 5   | PC-1805 | CIM-620    | Non-Bt        | Nil                                 | +                                  | 100              | 2.25                           | +                                  | 40               | 1.03                           | -                                  | NT               | NT                             | +                                  | 47               | 1.64                           | Low      | Medium        |
| 6   | PC-1806 | GS-Ali-7   | Non-Bt        | Nil                                 | +                                  | 100              | 2.16                           | -                                  | 0                | 0.00                           | -                                  | NT               | NT                             | -                                  | 33               | 1.08                           | Low      | Low           |
| 7   | PC-1807 | CRIS-552   | Non-Bt        | Nil                                 | -                                  | 25               | 1.36                           | -                                  | 0                | 0.00                           | -                                  | NT               | NT                             | -                                  | 8                | 0.68                           | Low      | Low           |
| 8   | PC-1808 | NIAB-191   | Non-Bt        | Nil                                 | +                                  | 100              | 0.98                           | +                                  | 80               | 1.21                           | +                                  | 100              | 2.22                           | +                                  | 93               | 1.47                           | Medium   | Medium        |
| 9   | PC-1809 | CRIS-510   | Non-Bt        | Nil                                 | +                                  | 100              | 0.93                           | -                                  | 0                | 0.00                           | -                                  | NT               | NT                             | -                                  | 33               | 0.47                           | Low      | Low           |
| 10  | PC-1810 | NIAB-818   | Non-Bt        | Nil                                 | +                                  | 100              | 1.67                           | +                                  | 80               | 1.34                           | +                                  | 67               | 1.04                           | +                                  | 82               | 1.35                           | Low      | Medium        |
| 11  | PC-1811 | GS-Ali-9   | Non-Bt        | Nil                                 | +                                  | 100              | 0.00                           | +                                  | 60               | 1.02                           | +                                  | 60               | 1.08                           | +                                  | 73               | 0.70                           | Low      | Low           |
| 12  | PC-1812 | Bahar-07   | Bt            | Cry1AC/Mon-531                      | -                                  | 25               | 1.21                           | +                                  | 100              | 2.26                           | +                                  | 67               | 0.94                           | +                                  | 64               | 1.47                           | Low      | Medium        |
| 13  | PC-1813 | AA-933     | Bt            | Cry1AC/Mon-531                      | -                                  | 25               | 2.06                           | +                                  | 100              | 3.21                           | +                                  | 100              | 2.03                           | +                                  | 75               | 2.43                           | Low      | High          |
| 14  | PC-1814 | Auriga-216 | Bt            | Cry1AC/Mon-531                      | -                                  | 25               | 4.19                           | +                                  | 100              | 2.03                           | +                                  | 100              | 0.95                           | +                                  | 75               | 2.39                           | Low      | High          |
| 15  | PC-1815 | Bahar-2017 | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 0.72                           | +                                  | 100              | 1.35                           | +                                  | 67               | 1.06                           | +                                  | 89               | 1.04                           | Low      | Medium        |
| 16  | PC-1816 | BH-221     | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 1.47                           | +                                  | 60               | 4.12                           | +                                  | 67               | 1.52                           | +                                  | 76               | 2.37                           | Low      | High          |
| 17  | PC-1817 | BS-18      | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 2.00                           | +                                  | 100              | 1.06                           | +                                  | 40               | 1.32                           | +                                  | 80               | 1.46                           | Low      | Medium        |
| 18  | PC-1818 | Bt.CIM-343 | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 1.35                           | +                                  | 100              | 1.12                           | +                                  | 100              | 1.23                           | +                                  | 100              | 1.23                           | High     | Medium        |
| 19  | PC-1819 | Bt.CIM-663 | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 3.78                           | +                                  | 100              | 2.56                           | +                                  | 100              | 1.75                           | +                                  | 100              | 2.70                           | High     | High          |
| 20  | PC-1820 | CIM-602    | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 0.54                           | +                                  | 100              | 2.98                           | +                                  | 100              | 1.09                           | +                                  | 100              | 1.54                           | High     | Medium        |
| 21  | PC-1821 | BZU-05     | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 1.18                           | +                                  | 100              | 1.65                           | +                                  | 60               | 1.90                           | +                                  | 87               | 1.58                           | Low      | Medium        |



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Annexure-VIII: Test-1: Summary of Testing Results for **Cry1ac** Gene (Event **MON-531**) **Bollgard-I** Technology

| Sr. | Codes   | Varities    | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                  |                                | 2- ABRI-Faisalabad                 |                  |                                | 3- NIBGE-Faisalabad                |                  |                                | Average of 3 Labs                  |                  |                                | Remarks  |               |
|-----|---------|-------------|---------------|-------------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|----------|---------------|
|     |         |             |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Purity * | Expression ** |
| 1   | 2       | 3           | 4             | 5                                   | 6                                  | 7                | 8                              | 9                                  | 10               | 11                             | 12                                 | 13               | 14                             | 15                                 | 16               | 17                             | 18       | 19            |
| 22  | PC-1822 | Cyto-515    | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 2.33                           | +                                  | 100              | 1.54                           | +                                  | 40               | 0.91                           | +                                  | 80               | 1.59                           | Low      | Medium        |
| 23  | PC-1823 | Evyol-148   | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 0.69                           | +                                  | 100              | 1.23                           | +                                  | 67               | 0.84                           | +                                  | 89               | 0.92                           | Low      | Low           |
| 24  | PC-1824 | FH-444      | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 0.97                           | +                                  | 100              | 0.98                           | +                                  | 100              | 1.28                           | +                                  | 100              | 1.08                           | High     | Medium        |
| 25  | PC-1825 | FH-490      | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 1.04                           | +                                  | 100              | 1.28                           | +                                  | 67               | 1.02                           | +                                  | 89               | 1.11                           | Low      | Medium        |
| 26  | PC-1826 | GH-Haadi    | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 3.38                           | +                                  | 100              | 1.46                           | +                                  | 100              | 1.18                           | +                                  | 100              | 2.01                           | High     | High          |
| 27  | PC-1827 | GH-Mubarak  | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 0.34                           | +                                  | 100              | 2.56                           | +                                  | 40               | NT                             | +                                  | 80               | 1.45                           | Low      | Low           |
| 28  | PC-1828 | ICI-2121    | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 1.12                           | +                                  | 100              | 0.90                           | +                                  | 100              | 0.74                           | +                                  | 100              | 0.92                           | High     | Low           |
| 29  | PC-1829 | IUB-13      | Bt            | Cry1AC/Mon-531                      | -                                  | 25               | 0.59                           | +                                  | 100              | 1.63                           | +                                  | 67               | 1.31                           | +                                  | 64               | 1.18                           | Low      | Medium        |
| 30  | PC-1830 | IR-NIBGE-11 | Bt            | Cry1AC/Mon-531                      | +                                  | 75               | 0.86                           | +                                  | 100              | 0.86                           | +                                  | 67               | 1.84                           | +                                  | 81               | 1.19                           | Low      | Medium        |
| 31  | PC-1831 | IUB-69      | Bt            | Cry1AC/Mon-531                      | -                                  | 25               | 1.25                           | +                                  | 100              | 1.66                           | +                                  | 67               | 1.00                           | +                                  | 64               | 1.30                           | Low      | Medium        |
| 32  | PC-1832 | KZ-125      | Bt            | Cry1AC/Mon-531                      | +/-                                | 50               | 1.14                           | +                                  | 100              | 1.25                           | +                                  | 67               | 1.31                           | +                                  | 72               | 1.23                           | Low      | Medium        |
| 33  | PC-1833 | MNH-1020    | Bt            | Cry1AC/Mon-531                      | -                                  | 25               | 0.22                           | +                                  | 100              | 1.26                           | +                                  | 40               | 1.13                           | +                                  | 55               | 0.87                           | Low      | Low           |
| 34  | PC-1834 | MNH-1026    | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 1.57                           | +                                  | 100              | 1.24                           | +                                  | 67               | 1.26                           | +                                  | 89               | 1.36                           | Low      | Medium        |
| 35  | PC-1835 | NIA-85      | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 1.17                           | +                                  | 100              | 0.65                           | +                                  | 100              | 1.31                           | +                                  | 100              | 1.04                           | High     | Medium        |
| 36  | PC-1836 | NIAB-898    | Bt            | Cry1AC/Mon-531                      | -                                  | 25               | 0.82                           | +                                  | 100              | 2.00                           | +                                  | 67               | 1.07                           | +                                  | 64               | 1.30                           | Low      | Medium        |
| 37  | PC-1837 | NS-191      | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 0.70                           | +                                  | 80               | 0.64                           | +                                  | 40               | 1.07                           | +                                  | 73               | 0.80                           | Low      | Low           |
| 38  | PC-1838 | RH-Afnan    | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 0.59                           | +                                  | 100              | 2.52                           | +                                  | 100              | 1.02                           | +                                  | 100              | 1.38                           | Low      | Medium        |
| 39  | PC-1839 | RH-Manthar  | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 0.64                           | +                                  | 100              | 1.62                           | +                                  | 67               | 1.72                           | +                                  | 89               | 1.33                           | Low      | Medium        |
| 40  | PC-1840 | Sahara-210  | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 0.95                           | +                                  | 100              | 1.85                           | +                                  | 67               | 1.10                           | +                                  | 89               | 1.30                           | Low      | Medium        |
| 41  | PC-1841 | Shahab-7    | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 0.58                           | +                                  | 100              | 0.44                           | +                                  | 100              | 0.91                           | +                                  | 100              | 0.64                           | High     | Low           |
| 42  | PC-1842 | Shaheen-16  | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 0.45                           | +                                  | 100              | 1.56                           | +                                  | 67               | 1.62                           | +                                  | 89               | 1.21                           | Low      | Medium        |
| 43  | PC-1843 | Sitara-16   | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 1.15                           | +                                  | 100              | 1.45                           | +                                  | 67               | 1.62                           | +                                  | 89               | 1.41                           | Low      | Medium        |

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Annexure-VIII: Test-1: Summary of Testing Results for **Cry1ac** Gene (Event **MON-531**) **Bollgard-I** Technology

| Sr. | Codes   | Varities          | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                     |                                | 2- ABRI-Faisalabad                 |                     |                                | 3- NIBGE-Faisalabad                |                     |                                | Average of 3 Labs                  |                     |                                | Remarks  |               |
|-----|---------|-------------------|---------------|-------------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|----------|---------------|
|     |         |                   |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Purity * | Expression ** |
| 1   | 2       | 3                 | 4             | 5                                   | 6                                  | 7                   | 8                              | 9                                  | 10                  | 11                             | 12                                 | 13                  | 14                             | 15                                 | 16                  | 17                             | 18       | 19            |
| 44  | PC-1844 | SLH-19            | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 0.49                           | +                                  | 60                  | 0.68                           | +                                  | 40                  | 1.55                           | +                                  | 67                  | 0.91                           | Low      | Low           |
| 45  | PC-1845 | SLH-6             | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 0.72                           | +                                  | 40                  | 0.76                           | +                                  | 60                  | 1.46                           | +                                  | 67                  | 0.98                           | Low      | Low           |
| 46  | PC-1846 | Suncrop-5         | Bt            | Cry1AC/Mon-531                      | -                                  | 25                  | 1.16                           | +                                  | 100                 | 1.34                           | +                                  | 67                  | 1.9                            | +                                  | 64                  | 1.47                           | Low      | Medium        |
| 47  | PC-1847 | CIM-602           | Bt            | Cry1AC/Mon-531                      | +/-                                | 50                  | 3.23                           | +                                  | 100                 | 2.82                           | +                                  | 60                  | 0.81                           | +                                  | 70                  | 2.29                           | Low      | High          |
| 48  | PC-1848 | Suncrop-6         | Bt            | Cry1AC/Mon-531                      | -                                  | 25                  | 0.12                           | +                                  | 100                 | 1.76                           | +                                  | 60                  | 0.94                           | +                                  | 62                  | 0.94                           | Low      | Low           |
| 49  | PC-1849 | Tassco-902        | Bt            | Cry1AC/Mon-531                      | -                                  | 25                  | 0.68                           | +                                  | 100                 | 1.68                           | +                                  | 100                 | 0.98                           | +                                  | 75                  | 1.11                           | Low      | Medium        |
| 50  | PC-1850 | Tipu-9            | Bt            | Cry1AC/Mon-531                      | +/-                                | 50                  | 2.11                           | +                                  | 100                 | 2.86                           | +                                  | 67                  | 1.20                           | +                                  | 72                  | 2.06                           | Low      | High          |
| 51  | PC-1851 | VH-189            | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 1.57                           | +                                  | 100                 | 1.64                           | +                                  | 67                  | 1.24                           | +                                  | 89                  | 1.48                           | Low      | Medium        |
| 52  | PC-1852 | VH-383            | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 0.66                           | +                                  | 100                 | 2.00                           | +                                  | 60                  | 0.87                           | +                                  | 87                  | 1.18                           | Low      | Medium        |
| 53  | PC-1853 | Weal AG-5         | Bt            | Cry1AC/Mon-531                      | -                                  | 25                  | 1.19                           | +                                  | 100                 | 1.63                           | +                                  | 60                  | 0.96                           | +                                  | 62                  | 1.26                           | Low      | Medium        |
| 54  | PC-1854 | Weal AG-6         | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 1.09                           | +                                  | 100                 | 1.59                           | +                                  | 67                  | 1.01                           | +                                  | 89                  | 1.23                           | Low      | Medium        |
| 55  | PC-1855 | Badar-1 (CII)     | Bt            | Cry1AC+Cry2A                        | +                                  | 100                 | 2.63                           | +                                  | 100                 | 3.12                           | +                                  | 20                  | NT                             | +                                  | 73                  | 2.88                           | Low      | Medium        |
| 56  | PC-1856 | IUB-13            | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 2.56                           | +                                  | 100                 | 1.48                           | +                                  | 67                  | 2.48                           | +                                  | 89                  | 2.17                           | Low      | High          |
| 57  | PC-1857 | CII-CEMB-100      | Bt            | Cry1AC+Cry2A                        | +                                  | 100                 | 1.23                           | +                                  | 80                  | 1.80                           | +                                  | 67                  | 1.28                           | +                                  | 82                  | 1.44                           | Low      | Medium        |
| 58  | PC-1858 | CII-CEMB-101      | Bt            | Cry1AC+Cry2A                        | +                                  | 100                 | 4.07                           | +                                  | 100                 | 2.65                           | +                                  | 100                 | 1.26                           | +                                  | 100                 | 2.66                           | High     | High          |
| 59  | PC-1859 | NU-21 (CII)       | Bt            | Cry1AC+Cry2A                        | +                                  | 75                  | 0.74                           | +                                  | 100                 | 1.86                           | +                                  | 67                  | 1.17                           | +                                  | 81                  | 1.26                           | Low      | Medium        |
| 60  | PC-1860 | Sahara-2020 (CII) | Bt            | Cry1AC+Cry2A                        | -                                  | 25                  | 1.51                           | +                                  | 100                 | 1.54                           | +                                  | 20                  | NT                             | +                                  | 48                  | 1.53                           | Low      | Medium        |
| 61  | PC-1861 | Tahafuz-10 (CII)  | Bt            | Cry1AC+Cry2A                        | +/-                                | 50                  | 0.67                           | +                                  | 100                 | 1.45                           | +                                  | 67                  | 1.16                           | +                                  | 72                  | 1.09                           | Low      | Medium        |
| 62  | PC-1862 | TJ-Max (CII)      | Bt            | Cry1AC+Cry2A                        | +                                  | 100                 | 0.30                           | +                                  | 100                 | 3.65                           | +                                  | 100                 | 0.92                           | +                                  | 100                 | 1.62                           | High     | Medium        |
| 63  | PC-1863 | CII-Badar-2       | Bt            | Cry1AC+Cry2A                        | +                                  | 100                 | 1.36                           | +                                  | 100                 | 1.52                           | +                                  | 100                 | 0.66                           | +                                  | 100                 | 1.18                           | High     | Medium        |
| 64  | PC-1864 | CII-CEMB-102      | Bt            | Cry1AC+Cry2A                        | +                                  | 100                 | 0.82                           | +                                  | 100                 | 1.46                           | +                                  | 100                 | 0.64                           | +                                  | 100                 | 0.97                           | High     | Low           |

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Annexure-VIII: Test-1: Summary of Testing Results for **Cry1ac** Gene (Event **MON-531**) **Bollgard-I** Technology

| Sr. | Codes   | Varities            | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                     |                                | 2- ABRI-Faisalabad                 |                     |                                | 3- NIBGE-Faisalabad                |                     |                                | Average of 3 Labs                  |                     |                                | Remarks  |               |
|-----|---------|---------------------|---------------|-------------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|----------|---------------|
|     |         |                     |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Purity * | Expression ** |
| 1   | 2       | 3                   | 4             | 5                                   | 6                                  | 7                   | 8                              | 9                                  | 10                  | 11                             | 12                                 | 13                  | 14                             | 15                                 | 16                  | 17                             | 18       | 19            |
| 65  | PC-1865 | CII-ICI-2222        | Bt            | Cry1AC+Cry2A                        | +                                  | 100                 | 0.90                           | +                                  | 100                 | 1.57                           | +                                  | 67                  | 1.51                           | +                                  | 89                  | 1.33                           | Low      | Medium        |
| 66  | PC-1866 | CII-Suncrop         | Bt            | Cry1AC+Cry2A                        | +                                  | 100                 | 5.04                           | +                                  | 80                  | 1.62                           | +                                  | 67                  | 1.07                           | +                                  | 82                  | 2.58                           | Low      | High          |
| 67  | PC-1867 | CII-Tahafuz-12      | Bt            | Cry1AC+Cry2A                        | +/-                                | 50                  | 3.57                           | +                                  | 100                 | 5.42                           | +                                  | 40                  | 1.96                           | +                                  | 63                  | 3.65                           | Low      | High          |
| 68  | PC-1868 | CII-TJ-King         | Bt            | Cry1AC+Cry2A                        | -                                  | 25                  | 0.55                           | +                                  | 100                 | 1.80                           | +                                  | 100                 | 1.23                           | +                                  | 75                  | 1.19                           | Low      | Medium        |
| 69  | PC-1869 | CEMB-Klean Cotton-1 | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 100                 | 0.37                           | +                                  | 100                 | 2.45                           | +                                  | 100                 | 1.16                           | +                                  | 100                 | 1.33                           | High     | Medium        |
| 70  | PC-1870 | CEMB-Klean Cotton-2 | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 100                 | 2.58                           | +                                  | 100                 | 2.37                           | +                                  | 100                 | 2.18                           | +                                  | 100                 | 2.38                           | High     | High          |
| 71  | PC-1871 | Ghuri-1 (CKC)       | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 100                 | 3.19                           | +                                  | 100                 | 1.96                           | +                                  | 67                  | 1.15                           | +                                  | 89                  | 1.58                           | Low      | Medium        |
| 72  | PC-1872 | Hatf-1 (CKC)        | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 100                 | 0.96                           | +                                  | 100                 | 1.65                           | +                                  | 100                 | 1.18                           | +                                  | 100                 | 0.95                           | High     | Low           |
| 73  | PC-1873 | CKC-3               | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 100                 | 0.96                           | +                                  | 100                 | 2.48                           | +                                  | 67                  | 1.03                           | +                                  | 89                  | 1.12                           | Low      | Medium        |
| 74  | PC-1874 | CKC-4               | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 100                 | 1.01                           | +                                  | 100                 | 1.24                           | +                                  | 100                 | 0.96                           | +                                  | 100                 | 0.80                           | High     | Low           |
| 75  | PC-1875 | CKC-Clean Flex      | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 100                 | 0.59                           | +                                  | 100                 | 2.06                           | +                                  | 67                  | 1.16                           | +                                  | 89                  | 0.95                           | Low      | Low           |
| 76  | PC-1876 | CKC-Hatf-3          | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 100                 | 0.61                           | +                                  | 60                  | 1.75                           | +                                  | 100                 | 1.36                           | +                                  | 87                  | 0.93                           | Low      | Low           |
| 77  | PC-1877 | CIM-602             | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 0.78                           | +                                  | 100                 | 2.9                            | +                                  | 67                  | 1.12                           | +                                  | 89                  | 1.20                           | Low      | High          |
| 78  | PC-1878 | CKC-ICI-2323        | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 100                 | 0.89                           | -                                  | 0                   | 0                              | +                                  | 20                  | NT                             | +                                  | 40                  | 0.30                           | Low      | Low           |
| 79  | PC-1879 | CKC-Sahara-Klean    | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 75                  | 1.87                           | +                                  | 100                 | 2.06                           | +                                  | 67                  | 1.03                           | +                                  | 81                  | 1.24                           | Low      | High          |
| 80  | PC-1880 | CKC-TJ-Inqilab      | Bt            | Cry1AC+Cry2A+GTG                    | +/-                                | 50                  | 0.69                           | +                                  | 100                 | 2.28                           | +                                  | 100                 | 1.07                           | +                                  | 83                  | 1.01                           | Low      | Medium        |
| 81  | PC-1881 | BF-1                | Bt            | Cry1AC/Mon-531                      | +/-                                | 50                  | 0.57                           | +                                  | 100                 | 1.52                           | +                                  | 75                  | 1.00                           | +                                  | 75                  | 0.77                           | Low      | Low           |
| 82  | PC-1882 | BH-223              | Bt            | Cry1AC/Mon-531                      | +                                  | 75                  | 0.70                           | +                                  | 100                 | 2.36                           | +                                  | 60                  | 0.99                           | +                                  | 78                  | 1.01                           | Low      | Medium        |
| 83  | PC-1883 | BS-20               | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 2.33                           | +                                  | 100                 | 1.88                           | +                                  | 67                  | 1.07                           | +                                  | 89                  | 1.32                           | Low      | High          |
| 84  | PC-1884 | Bt. CIM-303         | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 1.59                           | +                                  | 100                 | 0.68                           | +                                  | 67                  | 0.80                           | +                                  | 89                  | 0.77                           | Low      | Low           |
| 85  | PC-1885 | Bt. CIM-678         | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 0.33                           | +                                  | 100                 | 1.25                           | +                                  | 100                 | 1.32                           | +                                  | 100                 | 0.73                           | High     | Low           |
| 86  | PC-1886 | IUB-13              | Bt            | Cry1AC/Mon-531                      | +                                  | 75                  | 0.25                           | +                                  | 100                 | 1.85                           | +                                  | 40                  | 0.81                           | +                                  | 72                  | 0.73                           | Low      | Low           |

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Annexure-VIII: Test-1: Summary of Testing Results for **Cry1ac** Gene (Event **MON-531**) **Bollgard-I** Technology

| Sr. | Codes    | Varities             | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                     |                                | 2- ABRI-Faisalabad                 |                     |                                | 3- NIBGE-Faisalabad                |                     |                                | Average of 3 Labs                  |                     |                                | Remarks  |               |
|-----|----------|----------------------|---------------|-------------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|----------|---------------|
|     |          |                      |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Purity * | Expression ** |
| 1   | 2        | 3                    | 4             | 5                                   | 6                                  | 7                   | 8                              | 9                                  | 10                  | 11                             | 12                                 | 13                  | 14                             | 15                                 | 16                  | 17                             | 18       | 19            |
| 87  | PC-1887  | Bt. CIM-789          | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 2.66                           | +                                  | 100                 | 0.80                           | +                                  | 60                  | 0.66                           | +                                  | 87                  | 1.03                           | Low      | Medium        |
| 88  | PC-1888  | BZU-07               | Bt            | Cry1AC/Mon-531                      | +                                  | 75                  | 0.32                           | +                                  | 100                 | 0.45                           | +                                  | 40                  | 1.12                           | +                                  | 72                  | 0.47                           | Low      | Low           |
| 89  | PC-1889  | CRIS-671             | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 1.82                           | +                                  | 100                 | 1.56                           | +                                  | 67                  | 0.88                           | +                                  | 89                  | 1.06                           | Low      | Medium        |
| 90  | PC-1890  | CRIS-673             | Bt            | Cry1AC/Mon-531                      | +                                  | 75                  | 1.15                           | +                                  | 100                 | 1.85                           | +                                  | 50                  | 0.99                           | +                                  | 75                  | 1.00                           | Low      | Medium        |
| 91  | PC-1891  | Crystal-20           | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 3.76                           | +                                  | 100                 | 1.10                           | +                                  | 100                 | 1.22                           | +                                  | 100                 | 1.52                           | High     | High          |
| 92  | PC-1892  | Cyto-510             | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 1.78                           | +                                  | 100                 | 1.47                           | +                                  | 67                  | 1.18                           | +                                  | 89                  | 1.11                           | Low      | Medium        |
| 93  | PC-1893  | Cyto-511             | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 1.21                           | +                                  | 100                 | 1.00                           | +                                  | 40                  | 1.08                           | +                                  | 80                  | 0.82                           | Low      | Low           |
| 94  | PC-1894  | Eagle-3              | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 0.42                           | +                                  | 100                 | 2.08                           | +                                  | 100                 | 1.5                            | +                                  | 100                 | 1.00                           | High     | Medium        |
| 95  | PC-1895  | Eye-111              | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 0.39                           | +                                  | 100                 | 1.65                           | +                                  | 67                  | 1.4                            | +                                  | 89                  | 0.86                           | Low      | Low           |
| 96  | PC-1896  | Eye-20               | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 2.47                           | +                                  | 100                 | 1.48                           | +                                  | 60                  | 1.21                           | +                                  | 87                  | 1.29                           | Low      | Medium        |
| 97  | PC-1897  | FH-155               | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 1.13                           | +                                  | 100                 | 2.78                           | +                                  | 67                  | 0.72                           | +                                  | 89                  | 1.16                           | Low      | Medium        |
| 98  | PC-1898  | FH-AM Cotton-2017    | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 2.37                           | +                                  | 100                 | 0.68                           | +                                  | 20                  | NT                             | +                                  | 73                  | 1.02                           | Low      | Low           |
| 99  | PC-1899  | FH-Super Cotton-2017 | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 1.89                           | +                                  | 100                 | 1.45                           | +                                  | 100                 | 0.70                           | +                                  | 100                 | 1.01                           | High     | Medium        |
| 100 | PC-18100 | GH-UHAD              | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 0.00                           | +                                  | 100                 | 2.28                           | +                                  | 60                  | 1.02                           | +                                  | 87                  | 0.83                           | Low      | Low           |
| 101 | PC-18101 | ICI-2424             | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 0.94                           | +                                  | 100                 | 2.48                           | +                                  | 67                  | 1.01                           | +                                  | 89                  | 1.11                           | Low      | Medium        |
| 102 | PC-18102 | IR-NIBGE-12          | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 0.25                           | +                                  | 100                 | 1.60                           | +                                  | 60                  | 0.90                           | +                                  | 87                  | 0.69                           | Low      | Low           |
| 103 | PC-18103 | IR-NIBGE-13          | Bt            | Cry1AC/Mon-531                      | +/-                                | 50                  | 0.85                           | +                                  | 100                 | 3.30                           | +                                  | 20                  | NT                             | +                                  | 57                  | 1.38                           | Low      | Medium        |
| 104 | PC-18104 | CIM-602              | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 2.71                           | +                                  | 100                 | 0.86                           | +                                  | 67                  | 1.32                           | +                                  | 89                  | 1.22                           | Low      | Medium        |
| 105 | PC-18105 | IUB-71               | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 1.65                           | +                                  | 100                 | 2.12                           | +                                  | 67                  | 1.17                           | +                                  | 89                  | 1.23                           | Low      | Medium        |
| 106 | PC-18106 | Koh-i-Noor           | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 0.86                           | +                                  | 100                 | 1.54                           | +                                  | 67                  | 1.42                           | +                                  | 89                  | 0.95                           | Low      | Low           |
| 107 | PC-18107 | MNH-1035             | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 0.30                           | +                                  | 100                 | 1.68                           | +                                  | 67                  | 1.90                           | +                                  | 89                  | 0.97                           | Low      | Low           |
| 108 | PC-18108 | MZM-7                | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 0.14                           | +                                  | 100                 | 1.78                           | +                                  | 40                  | 1.25                           | +                                  | 80                  | 0.79                           | Low      | Low           |

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Annexure-VIII: Test-1: Summary of Testing Results for **Cry1ac** Gene (Event **MON-531**) **Bollgard-I** Technology

| Sr. | Codes    | Varities   | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                  |                                | 2- ABRI-Faisalabad                 |                  |                                | 3- NIBGE-Faisalabad                |                  |                                | Average of 3 Labs                  |                  |                                | Remarks  |               |
|-----|----------|------------|---------------|-------------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|----------|---------------|
|     |          |            |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Purity * | Expression ** |
| 1   | 2        | 3          | 4             | 5                                   | 6                                  | 7                | 8                              | 9                                  | 10               | 11                             | 12                                 | 13               | 14                             | 15                                 | 16               | 17                             | 18       | 19            |
| 109 | PC-18109 | NIAB-1011  | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 2.98                           | +                                  | 100              | 1.65                           | +                                  | 60               | 0.91                           | +                                  | 87               | 1.38                           | Low      | Medium        |
| 110 | PC-18110 | NIAB-135   | Bt            | Cry1AC/Mon-531                      | -                                  | 25               | 0.70                           | +                                  | 100              | 1.78                           | +                                  | 67               | 1.14                           | +                                  | 64               | 0.90                           | Low      | Low           |
| 111 | PC-18111 | NS-201     | Bt            | Cry1AC/Mon-531                      | +/-                                | 50               | 2.59                           | +                                  | 100              | 1.55                           | +                                  | 20               | NT                             | +                                  | 57               | 1.38                           | Low      | Medium        |
| 112 | PC-18112 | RH-670     | Bt            | Cry1AC/Mon-531                      | +                                  | 75               | 0.00                           | +                                  | 100              | 2.20                           | +                                  | 67               | 1.05                           | +                                  | 81               | 0.81                           | Low      | Low           |
| 113 | PC-18113 | IUB-13     | Bt            | Cry1AC/Mon-531                      | -                                  | 25               | 1.46                           | +                                  | 100              | 1.63                           | +                                  | 100              | 1.04                           | +                                  | 75               | 1.03                           | Low      | Medium        |
| 114 | PC-18114 | Rohi-1     | Bt            | Cry1AC/Mon-531                      | +                                  | 75               | 2.62                           | +                                  | 100              | 1.46                           | +                                  | 60               | 0.94                           | +                                  | 78               | 1.26                           | Low      | Medium        |
| 115 | PC-18115 | Rustom-11  | Bt            | Cry1AC/Mon-531                      | +/-                                | 50               | 2.26                           | +                                  | 100              | 1.44                           | +                                  | 60               | 1.3                            | +                                  | 70               | 1.67                           | Low      | Medium        |
| 116 | PC-18116 | SLH-33     | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 2.35                           | +                                  | 40               | 1.06                           | +                                  | 67               | 1.48                           | +                                  | 69               | 1.63                           | Low      | Medium        |
| 117 | PC-18117 | Tassco-112 | Bt            | Cry1AC/Mon-531                      | -                                  | 25               | 1.13                           | +                                  | 100              | 1.29                           | +                                  | 67               | 0.86                           | +                                  | 64               | 1.09                           | Low      | Medium        |
| 118 | PC-18118 | Tipu-1524  | Bt            | Cry1AC/Mon-531                      | -                                  | 25               | 2.87                           | +                                  | 100              | 1.48                           | +                                  | 60               | 0.99                           | +                                  | 62               | 1.78                           | Low      | Medium        |
| 119 | PC-18119 | VH-402     | Bt            | Cry1AC/Mon-531                      | -                                  | 25               | 0.87                           | +                                  | 100              | 1.65                           | +                                  | 67               | 1.04                           | +                                  | 64               | 1.19                           | Low      | Medium        |
| 120 | PC-18120 | Weal AG-7  | Bt            | Cry1AC/Mon-531                      | +                                  | 75               | 2.24                           | +                                  | 100              | 1.48                           | +                                  | 40               | 1.2                            | +                                  | 72               | 1.64                           | Low      | Medium        |
| 121 | PC-18121 | Weal AG-8  | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 0.00                           | +                                  | 100              | 1.38                           | +                                  | 60               | 1.17                           | +                                  | 87               | 0.85                           | Low      | Low           |
| 122 | PC-18122 | CIM-717    | Non-Bt        | Nil                                 | +                                  | 100              | 2.25                           | +                                  | 40               | 0.72                           | +                                  | 40               | 1.16                           | +                                  | 60               | 1.38                           | Low      | Medium        |
| 123 | PC-18123 | Cyto-225   | Non-Bt        | Nil                                 | -                                  | 25               | 2.66                           | -                                  | NT               | NT                             | -                                  | 0                | NT                             | +                                  | 8                | 2.66                           | Low      | Medium        |
| 124 | PC-18124 | CRIS-613   | Non-Bt        | Nil                                 | +/-                                | 50               | 3.76                           | -                                  | NT               | NT                             | -                                  | 0                | NT                             | +                                  | 17               | 3.76                           | Low      | Medium        |
| 125 | PC-18125 | TH-88/11   | Non-Bt        | Nil                                 | -                                  | 25               | 0.54                           | +                                  | 80               | 1.26                           | +                                  | 40               | 1.29                           | +                                  | 48               | 1.03                           | Low      | Medium        |



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**Annexure-VIII: Test-1: Summary of Testing Results for **Cry1ac** Gene (Event **MON-531**) **Bollgard-I** Technology**

| Sr. | Codes    | Varities       | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                  |                                | 2- ABRI-Faisalabad                 |                  |                                | 3- NIBGE-Faisalabad                |                  |                                | Average of 3 Labs                  |                  |                                | Remarks  |               |
|-----|----------|----------------|---------------|-------------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|----------|---------------|
|     |          |                |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Purity * | Expression ** |
| 1   | 2        | 3              | 4             | 5                                   | 6                                  | 7                | 8                              | 9                                  | 10               | 11                             | 12                                 | 13               | 14                             | 15                                 | 16               | 17                             | 18       | 19            |
| 126 | PC-18126 | CIM-620        | Non-Bt        | Nil                                 | +                                  | 100              | 1.97                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | +                                  | 100              | 1.97                           | Low      | Low           |
| 127 | PC-18127 | GS-Ali-7       | Non-Bt        | Nil                                 | +                                  | 100              | 1.50                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | +                                  | 100              | 1.50                           | Low      | Low           |
| 128 | PC-18128 | CRIS-552       | Non-Bt        | Nil                                 | +                                  | 100              | 1.12                           | -                                  | NT               | NT                             | +                                  | 20               | 1.68                           | +                                  | 40               | 1.40                           | Low      | Medium        |
| 129 | PC-18129 | NIAB-191       | Non-Bt        | Nil                                 | -                                  | 25               | 1.99                           | -                                  | NT               | NT                             | +                                  | 67               | 1.26                           | +                                  | 31               | 1.63                           | Low      | Medium        |
| 130 | PC-18130 | CRIS-510       | Non-Bt        | Nil                                 | +                                  | 100              | 2.08                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | +                                  | 33               | 2.08                           | Low      | Medium        |
| 131 | PC-18131 | NIAB-818       | Non-Bt        | Nil                                 | -                                  | 25               | 0.47                           | +                                  | 80               | 1.56                           | +                                  | 40               | 1.65                           | +                                  | 48               | 1.23                           | Low      | Medium        |
| 132 | PC-18132 | GS-Ali-9       | Non-Bt        | Nil                                 | +                                  | 100              | 2.68                           | +                                  | 100              | 2.66                           | +                                  | 20               | NT                             | +                                  | 73               | 2.67                           | Low      | Medium        |
|     |          | <b>Average</b> |               |                                     |                                    | <b>77</b>        | <b>1.71</b>                    |                                    | <b>86</b>        | <b>2.09</b>                    |                                    | <b>63</b>        | <b>1.86</b>                    |                                    | <b>51</b>        | <b>1.73</b>                    |          |               |

\* Status of **Bt toxin expression**: Poor = 0.1-0.9; Average = 1-1.9 and High = 2 and above.

\*\* Status of **Trait Purity**: 100% = High; 90-99% Medium and <90 is Low.

**Note:** Status of Trait Purity and Toxin Expression are subject to be reviewed by ARSC/ESC/PbSC)

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Annexure-VIII: Test-2: Testing Results for **Cry1Ac+Cry2Ab** Genes (Event **MON-15985**) **Bollgard-II** Technology

| Sr. | Codes   | Varities      | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                     |                                | 2- ABRI-Faisalabad                 |                     |                                | 3- NIBGE-Faisalabad                |                     |                                | Average of 3 Labs                  |                     |                                | Remarks                             |
|-----|---------|---------------|---------------|-------------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|-------------------------------------|
|     |         |               |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Bollgard-II Technology Confirmation |
| 1   | 2       | 3             | 4             | 5                                   | 6                                  | 7                   | 8                              | 9                                  | 10                  | 11                             | 12                                 | 13                  | 14                             | 15                                 | 16                  | 17                             | 18                                  |
| 1   | PC-1801 | CIM-717       | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 2   | PC-1802 | Cyto-225      | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 3   | PC-1803 | CRIS-613      | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 4   | PC-1804 | TH-88/11      | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 5   | PC-1805 | CIM-620       | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 6   | PC-1806 | GS-Ali-7      | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 7   | PC-1807 | CRIS-552      | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 8   | PC-1808 | NIAB-191      | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 9   | PC-1809 | CRIS-510      | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 10  | PC-1810 | NIAB-818      | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 11  | PC-1811 | GS-Ali-9      | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 12  | PC-1812 | Bahar-07      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 13  | PC-1813 | AA-933        | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 14  | PC-1814 | Auriga-216    | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 15  | PC-1815 | Bahar-2017    | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 16  | PC-1816 | BH-221        | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 17  | PC-1817 | BS-18         | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 18  | PC-1818 | Bt.CIM-343    | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 19  | PC-1819 | Bt.CIM-663    | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 20  | PC-1820 | CIM-602       | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 21  | PC-1821 | <b>BZU-05</b> | Bt            | Cry1AC/Mon-531                      | +                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | <b>Controversial</b>                |
| 22  | PC-1822 | Cyto-515      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 23  | PC-1823 | Evyol-148     | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |

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Annexure-VIII: Test-2: Testing Results for **Cry1Ac+Cry2Ab** Genes (Event **MON-15985**) **Bollgard-II** Technology

| Sr. | Codes   | Varities    | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                  |                                | 2- ABRI-Faisalabad                 |                  |                                | 3- NIBGE-Faisalabad                |                  |                                | Average of 3 Labs                  |                  |                                | Remarks                             |
|-----|---------|-------------|---------------|-------------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|-------------------------------------|
|     |         |             |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Bollgard-II Technology Confirmation |
| 1   | 2       | 3           | 4             | 5                                   | 6                                  | 7                | 8                              | 9                                  | 10               | 11                             | 12                                 | 13               | 14                             | 15                                 | 16               | 17                             | 18                                  |
| 24  | PC-1824 | FH-444      | Bt            | Cry1AC/Mon-531                      | +                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Controversial                       |
| 25  | PC-1825 | FH-490      | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 26  | PC-1826 | GH-Haadi    | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 27  | PC-1827 | GH-Mubarak  | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 28  | PC-1828 | ICI-2121    | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 29  | PC-1829 | IUB-13      | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 30  | PC-1830 | IR-NIBGE-11 | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 31  | PC-1831 | IUB-69      | Bt            | Cry1AC/Mon-531                      | +                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Controversial                       |
| 32  | PC-1832 | KZ-125      | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 33  | PC-1833 | MNH-1020    | Bt            | Cry1AC/Mon-531                      | +                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Controversial                       |
| 34  | PC-1834 | MNH-1026    | Bt            | Cry1AC/Mon-531                      | +                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Controversial                       |
| 35  | PC-1835 | NIA-85      | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 36  | PC-1836 | NIAB-898    | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 37  | PC-1837 | NS-191      | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 38  | PC-1838 | RH-Afnan    | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 39  | PC-1839 | RH-Manthar  | Bt            | Cry1AC/Mon-531                      | +                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Controversial                       |
| 40  | PC-1840 | Sahara-210  | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 41  | PC-1841 | Shahab-7    | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 42  | PC-1842 | Shaheen-16  | Bt            | Cry1AC/Mon-531                      | +                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Controversial                       |
| 43  | PC-1843 | Sitara-16   | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 44  | PC-1844 | SLH-19      | Bt            | Cry1AC/Mon-531                      | +                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Controversial                       |
| 45  | PC-1845 | SLH-6       | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |

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Annexure-VIII: Test-2: Testing Results for **Cry1Ac+Cry2Ab** Genes (Event **MON-15985**) **Bollgard-II** Technology

| Sr. | Codes   | Varities          | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                  |                                | 2- ABRI-Faisalabad                 |                  |                                | 3- NIBGE-Faisalabad                |                  |                                | Average of 3 Labs                  |                  |                                | Remarks                             |
|-----|---------|-------------------|---------------|-------------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|-------------------------------------|
|     |         |                   |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Bollgard-II Technology Confirmation |
| 1   | 2       | 3                 | 4             | 5                                   | 6                                  | 7                | 8                              | 9                                  | 10               | 11                             | 12                                 | 13               | 14                             | 15                                 | 16               | 17                             | 18                                  |
| 46  | PC-1846 | Suncrop-5         | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 47  | PC-1847 | CIM-602           | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 48  | PC-1848 | Suncrop-6         | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 49  | PC-1849 | Tassco-902        | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 50  | PC-1850 | Tipu-9            | Bt            | Cry1AC/Mon-531                      | +                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Controversial                       |
| 51  | PC-1851 | VH-189            | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 52  | PC-1852 | VH-383            | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 53  | PC-1853 | Weal AG-5         | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 54  | PC-1854 | Weal AG-6         | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 55  | PC-1855 | Badar-1 (CII)     | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 56  | PC-1856 | IUB-13            | Bt            | Cry1AC/Mon-531                      | +                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Controversial                       |
| 57  | PC-1857 | CII-CEMB-100      | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 58  | PC-1858 | CII-CEMB-101      | Bt            | Cry1AC+Cry2A                        | +                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Controversial                       |
| 59  | PC-1859 | NU-21 (CII)       | Bt            | Cry1AC+Cry2A                        | +                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Controversial                       |
| 60  | PC-1860 | Sahara-2020 (CII) | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 61  | PC-1861 | Tahafuz-10 (CII)  | Bt            | Cry1AC+Cry2A                        | +                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Controversial                       |
| 62  | PC-1862 | TJ-Max (CII)      | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 63  | PC-1863 | CII-Badar-2       | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 64  | PC-1864 | CII-CEMB-102      | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 65  | PC-1865 | CII-ICI-2222      | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 66  | PC-1866 | CII-Suncrop       | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 67  | PC-1867 | CII-Tahafuz-12    | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |
| 68  | PC-1868 | CII-TJ-King       | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                       |

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Annexure-VIII: Test-2: Testing Results for **Cry1Ac+Cry2Ab** Genes (Event **MON-15985**) **Bollgard-II** Technology

| Sr. | Codes   | Varities            | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                     |                                | 2- ABRI-Faisalabad                 |                     |                                | 3- NIBGE-Faisalabad                |                     |                                | Average of 3 Labs                  |                     |                                | Remarks                             |
|-----|---------|---------------------|---------------|-------------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|-------------------------------------|
|     |         |                     |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Bollgard-II Technology Confirmation |
| 1   | 2       | 3                   | 4             | 5                                   | 6                                  | 7                   | 8                              | 9                                  | 10                  | 11                             | 12                                 | 13                  | 14                             | 15                                 | 16                  | 17                             | 18                                  |
| 69  | PC-1869 | CEMB-Klean Cotton-1 | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 70  | PC-1870 | CEMB-Klean Cotton-2 | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 71  | PC-1871 | Ghauri-1 (CKC)      | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 72  | PC-1872 | Hatf-1 (CKC)        | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 73  | PC-1873 | CKC-3               | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 74  | PC-1874 | CKC-4               | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 75  | PC-1875 | CKC-Clean Flex      | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 76  | PC-1876 | CKC-Hatf-3          | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 77  | PC-1877 | CIM-602             | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 78  | PC-1878 | CKC-ICI-2323        | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 79  | PC-1879 | CKC-Sahara-Klean    | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 80  | PC-1880 | CKC-TJ-Inqilab      | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 81  | PC-1881 | BF-1                | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 82  | PC-1882 | BH-223              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 83  | PC-1883 | BS-20               | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 84  | PC-1884 | Bt. CIM-303         | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 85  | PC-1885 | Bt. CIM-678         | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 86  | PC-1886 | IUB-13              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 87  | PC-1887 | Bt. CIM-789         | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 88  | PC-1888 | BZU-07              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 89  | PC-1889 | CRIS-671            | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 90  | PC-1890 | CRIS-673            | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |



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Annexure-VIII: Test-2: Testing Results for **Cry1Ac+Cry2Ab** Genes (Event **MON-15985**) **Bollgard-II** Technology

| Sr. | Codes    | Varities             | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                     |                                | 2- ABRI-Faisalabad                 |                     |                                | 3- NIBGE-Faisalabad                |                     |                                | Average of 3 Labs                  |                     |                                | Remarks                             |
|-----|----------|----------------------|---------------|-------------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|-------------------------------------|
|     |          |                      |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Bollgard-II Technology Confirmation |
| 1   | 2        | 3                    | 4             | 5                                   | 6                                  | 7                   | 8                              | 9                                  | 10                  | 11                             | 12                                 | 13                  | 14                             | 15                                 | 16                  | 17                             | 18                                  |
| 91  | PC-1891  | Crystal-20           | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 92  | PC-1892  | Cyto-510             | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 93  | PC-1893  | Cyto-511             | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 94  | PC-1894  | Eagle-3              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 95  | PC-1895  | Eye-111              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 96  | PC-1896  | Eye-20               | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 97  | PC-1897  | FH-155               | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 98  | PC-1898  | FH-AM Cotton-2017    | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 99  | PC-1899  | FH-Super Cotton-2017 | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 100 | PC-18100 | GH-UHAD              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 101 | PC-18101 | ICI-2424             | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 102 | PC-18102 | IR-NIBGE-12          | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 103 | PC-18103 | IR-NIBGE-13          | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 104 | PC-18104 | CIM-602              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 105 | PC-18105 | IUB-71               | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 106 | PC-18106 | Koh-i-Noor           | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 107 | PC-18107 | MNH-1035             | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 108 | PC-18108 | MZM-7                | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 109 | PC-18109 | NIAB-1011            | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 110 | PC-18110 | NIAB-135             | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 111 | PC-18111 | NS-201               | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 112 | PC-18112 | RH-670               | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |

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Annexure-VIII: Test-2: Testing Results for **Cry1Ac+Cry2Ab** Genes (Event **MON-15985**) **Bollgard-II** Technology

| Sr. | Codes    | Varities       | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                     |                                | 2- ABRI-Faisalabad                 |                     |                                | 3- NIBGE-Faisalabad                |                     |                                | Average of 3 Labs                  |                     |                                | Remarks                             |
|-----|----------|----------------|---------------|-------------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|-------------------------------------|
|     |          |                |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Bollgard-II Technology Confirmation |
| 1   | 2        | 3              | 4             | 5                                   | 6                                  | 7                   | 8                              | 9                                  | 10                  | 11                             | 12                                 | 13                  | 14                             | 15                                 | 16                  | 17                             | 18                                  |
| 113 | PC-18113 | IUB-13         | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 114 | PC-18114 | Rohi-1         | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 115 | PC-18115 | Rustom-11      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 116 | PC-18116 | SLH-33         | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 117 | PC-18117 | Tassco-112     | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 118 | PC-18118 | Tipu-1524      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 119 | PC-18119 | VH-402         | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 120 | PC-18120 | Weal AG-7      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 121 | PC-18121 | Weal AG-8      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 122 | PC-18122 | CIM-717        | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 123 | PC-18123 | Cyto-225       | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 124 | PC-18124 | CRIS-613       | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 125 | PC-18125 | TH-88/11       | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 126 | PC-18126 | CIM-620        | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 127 | PC-18127 | GS-Ali-7       | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 128 | PC-18128 | CRIS-552       | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 129 | PC-18129 | NIAB-191       | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 130 | PC-18130 | CRIS-510       | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 131 | PC-18131 | NIAB-818       | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
| 132 | PC-18132 | GS-Ali-9       | Non-Bt        | Nil                                 | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                       |
|     |          | <b>Average</b> |               |                                     |                                    |                     |                                |                                    |                     |                                |                                    |                     |                                |                                    |                     |                                |                                     |

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Annexure-VIII: Test-3: Testing Results for CP4-EPSPS Gene (Event **MON-1445**) **RR** Technology

| Sr. | Codes   | Varities   | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                  |                                | 2- ABRI-Faisalabad                 |                  |                                | 3- NIBGE-Faisalabad                |                  |                                | Average of 3 Labs                  |                  |                                | Remarks                                  |
|-----|---------|------------|---------------|-------------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------------|
|     |         |            |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Roundup-Ready Technology<br>Confirmation |
| 1   | 2       | 3          | 4             | 5                                   | 6                                  | 7                | 8                              | 9                                  | 10               | 11                             | 12                                 | 13               | 14                             | 15                                 | 16               | 17                             | 18                                       |
| 1   | PC-1801 | CIM-717    | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 2   | PC-1802 | Cyto-225   | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 3   | PC-1803 | CRIS-613   | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 4   | PC-1804 | TH-88/11   | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 5   | PC-1805 | CIM-620    | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 6   | PC-1806 | GS-Ali-7   | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 7   | PC-1807 | CRIS-552   | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 8   | PC-1808 | NIAB-191   | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 9   | PC-1809 | CRIS-510   | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 10  | PC-1810 | NIAB-818   | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 11  | PC-1811 | GS-Ali-9   | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 12  | PC-1812 | Bahar-07   | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 13  | PC-1813 | AA-933     | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 14  | PC-1814 | Auriga-216 | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 15  | PC-1815 | Bahar-2017 | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 16  | PC-1816 | BH-221     | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 17  | PC-1817 | BS-18      | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 18  | PC-1818 | Bt.CIM-343 | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 19  | PC-1819 | Bt.CIM-663 | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 20  | PC-1820 | CIM-602    | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 21  | PC-1821 | BZU-05     | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 22  | PC-1822 | Cyto-515   | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 23  | PC-1823 | Evyol-148  | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |

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Annexure-VIII: Test-3: Testing Results for CP4-EPSPS Gene (Event **MON-1445**) RR Technology

| Sr. | Codes   | Varities    | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                     |                                | 2- ABRI-Faisalabad                 |                     |                                | 3- NIBGE-Faisalabad                |                     |                                | Average of 3 Labs                  |                     |                                | Remarks                                  |
|-----|---------|-------------|---------------|-------------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------------|
|     |         |             |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Roundup-Ready Technology<br>Confirmation |
| 1   | 2       | 3           | 4             | 5                                   | 6                                  | 7                   | 8                              | 9                                  | 10                  | 11                             | 12                                 | 13                  | 14                             | 15                                 | 16                  | 17                             | 18                                       |
| 24  | PC-1824 | FH-444      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 25  | PC-1825 | FH-490      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 26  | PC-1826 | GH-Haadi    | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 27  | PC-1827 | GH-Mubarak  | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 28  | PC-1828 | ICI-2121    | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 29  | PC-1829 | IUB-13      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 30  | PC-1830 | IR-NIBGE-11 | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 31  | PC-1831 | IUB-69      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 32  | PC-1832 | KZ-125      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 33  | PC-1833 | MNH-1020    | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 34  | PC-1834 | MNH-1026    | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 35  | PC-1835 | NIA-85      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 36  | PC-1836 | NIAB-898    | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 37  | PC-1837 | NS-191      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 38  | PC-1838 | RH-Afnan    | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 39  | PC-1839 | RH-Manthar  | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 40  | PC-1840 | Sahara-210  | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 41  | PC-1841 | Shahab-7    | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 42  | PC-1842 | Shaheen-16  | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 43  | PC-1843 | Sitara-16   | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 44  | PC-1844 | SLH-19      | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 45  | PC-1845 | SLH-6       | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |

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Annexure-VIII: Test-3: Testing Results for CP4-EPSPS Gene (Event **MON-1445**) **RR** Technology

| Sr. | Codes   | Varities          | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                  |                                | 2- ABRI-Faisalabad                 |                  |                                | 3- NIBGE-Faisalabad                |                  |                                | Average of 3 Labs                  |                  |                                | Remarks                                  |
|-----|---------|-------------------|---------------|-------------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------------|
|     |         |                   |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Roundup-Ready Technology<br>Confirmation |
| 1   | 2       | 3                 | 4             | 5                                   | 6                                  | 7                | 8                              | 9                                  | 10               | 11                             | 12                                 | 13               | 14                             | 15                                 | 16               | 17                             | 18                                       |
| 46  | PC-1846 | Suncrop-5         | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 47  | PC-1847 | CIM-602           | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 48  | PC-1848 | Suncrop-6         | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 49  | PC-1849 | Tassco-902        | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 50  | PC-1850 | Tipu-9            | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 51  | PC-1851 | VH-189            | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 52  | PC-1852 | VH-383            | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 53  | PC-1853 | Weal AG-5         | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 54  | PC-1854 | Weal AG-6         | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 55  | PC-1855 | Badar-1 (CII)     | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 56  | PC-1856 | IUB-13            | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 57  | PC-1857 | CII-CEMB-100      | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 58  | PC-1858 | CII-CEMB-101      | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 59  | PC-1859 | NU-21 (CII)       | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 60  | PC-1860 | Sahara-2020 (CII) | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 61  | PC-1861 | Tahafuz-10 (CII)  | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 62  | PC-1862 | TJ-Max (CII)      | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 63  | PC-1863 | CII-Badar-2       | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 64  | PC-1864 | CII-CEMB-102      | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 65  | PC-1865 | CII-ICI-2222      | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 66  | PC-1866 | CII-Suncrop       | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 67  | PC-1867 | CII-Tahafuz-12    | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 68  | PC-1868 | CII-TJ-King       | Bt            | Cry1AC+Cry2A                        | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | 0                | 0                              | Not Confirmed                            |



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Annexure-VIII: Test-3: Testing Results for CP4-EPSPS Gene (Event **MON-1445**) RR Technology

| Sr. | Codes   | Varities            | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                     |                                | 2- ABRI-Faisalabad                 |                     |                                | 3- NIBGE-Faisalabad                |                     |                                | Average of 3 Labs                  |                     |                                | Remarks                                  |
|-----|---------|---------------------|---------------|-------------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------------|
|     |         |                     |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Roundup-Ready Technology<br>Confirmation |
| 1   | 2       | 3                   | 4             | 5                                   | 6                                  | 7                   | 8                              | 9                                  | 10                  | 11                             | 12                                 | 13                  | 14                             | 15                                 | 16                  | 17                             | 18                                       |
| 69  | PC-1869 | CEMB-Klean Cotton-1 | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | +                                  | 100                 | 0.00                           | +                                  | 100                 | NT                             | +                                  | 67                  | 0                              | Confirmed                                |
| 70  | PC-1870 | CEMB-Klean Cotton-2 | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | +                                  | 60                  | 2.37                           | +                                  | 100                 | NT                             | +                                  | 53                  | 1.19                           | Confirmed                                |
| 71  | PC-1871 | Ghauri-1 (CKC)      | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | +                                  | 100                 | 1.96                           | +                                  | 67                  | NT                             | +                                  | 56                  | 0.98                           | Confirmed                                |
| 72  | PC-1872 | Hatf-1 (CKC)        | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | +                                  | 100                 | 1.65                           | +                                  | 100                 | NT                             | +                                  | 67                  | 0.83                           | Confirmed                                |
| 73  | PC-1873 | CKC-3               | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | +                                  | 60                  | 2.48                           | +                                  | 67                  | NT                             | +                                  | 42                  | 1.24                           | Confirmed                                |
| 74  | PC-1874 | CKC-4               | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | +                                  | 60                  | 1.24                           | +                                  | 100                 | NT                             | +                                  | 53                  | 0.62                           | Confirmed                                |
| 75  | PC-1875 | CKC-Clean Flex      | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | +                                  | 100                 | 2.06                           | +                                  | 67                  | NT                             | +                                  | 56                  | 1.03                           | Confirmed                                |
| 76  | PC-1876 | CKC-Hatf-3          | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | +                                  | 60                  | 1.75                           | +                                  | 100                 | NT                             | +                                  | 53                  | 0.88                           | Confirmed                                |
| 77  | PC-1877 | CIM-602             | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | +                                  | 100                 | 0                              | -                                  | NT                  | NT                             | -                                  | 33                  | 0.00                           | Controvertial                            |
| 78  | PC-1878 | CKC-ICI-2323        | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | +                                  | 100                 | 0                              | +                                  | 20                  | NT                             | +                                  | 40                  | 0.00                           | Confirmed                                |
| 79  | PC-1879 | CKC-Sahara-Klean    | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | +                                  | 100                 | 2.06                           | +                                  | 67                  | NT                             | +                                  | 56                  | 1.03                           | Confirmed                                |
| 80  | PC-1880 | CKC-TJ-Inqilab      | Bt            | Cry1AC+Cry2A+GTG                    | -                                  | NT                  | NT                             | +                                  | 80                  | 2.28                           | +                                  | 100                 | NT                             | +                                  | 60                  | 1.14                           | Confirmed                                |
| 81  | PC-1881 | BF-1                | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 82  | PC-1882 | BH-223              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | +                                  | 20                  | 2.36                           | -                                  | NT                  | NT                             | -                                  | 7                   | 1.18                           | Controvertial                            |
| 83  | PC-1883 | BS-20               | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | +                                  | 20                  | 1.88                           | -                                  | NT                  | NT                             | -                                  | 7                   | 0.94                           | Contravertial                            |
| 84  | PC-1884 | Bt. CIM-303         | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 85  | PC-1885 | Bt. CIM-678         | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 86  | PC-1886 | IUB-13              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 87  | PC-1887 | Bt. CIM-789         | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 88  | PC-1888 | BZU-07              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 89  | PC-1889 | CRIS-671            | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 90  | PC-1890 | CRIS-673            | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |

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Annexure-VIII: Test-3: Testing Results for CP4-EPSPS Gene (Event **MON-1445**) RR Technology

| Sr. | Codes    | Varities             | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                     |                                | 2- ABRI-Faisalabad                 |                     |                                | 3- NIBGE-Faisalabad                |                     |                                | Average of 3 Labs                  |                     |                                | Remarks                                  |
|-----|----------|----------------------|---------------|-------------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------------|
|     |          |                      |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Roundup-Ready Technology<br>Confirmation |
| 1   | 2        | 3                    | 4             | 5                                   | 6                                  | 7                   | 8                              | 9                                  | 10                  | 11                             | 12                                 | 13                  | 14                             | 15                                 | 16                  | 17                             | 18                                       |
| 91  | PC-1891  | Crystal-20           | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 92  | PC-1892  | Cyto-510             | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 93  | PC-1893  | Cyto-511             | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 94  | PC-1894  | Eagle-3              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 95  | PC-1895  | Eye-111              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 96  | PC-1896  | Eye-20               | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 97  | PC-1897  | FH-155               | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 98  | PC-1898  | FH-AM Cotton-2017    | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 99  | PC-1899  | FH-Super Cotton-2017 | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 100 | PC-18100 | GH-UHAD              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 101 | PC-18101 | ICI-2424             | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 102 | PC-18102 | IR-NIBGE-12          | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 103 | PC-18103 | IR-NIBGE-13          | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 104 | PC-18104 | CIM-602              | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 105 | PC-18105 | IUB-71               | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 106 | PC-18106 | Koh-i-Noor           | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 107 | PC-18107 | MNH-1035             | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 108 | PC-18108 | MZM-7                | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 109 | PC-18109 | NIAB-1011            | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 110 | PC-18110 | NIAB-135             | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 111 | PC-18111 | NS-201               | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |
| 112 | PC-18112 | RH-670               | Bt            | Cry1AC/Mon-531                      | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Not Confirmed                            |

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Annexure-VIII: Test-3: Testing Results for CP4-EPSPS Gene (Event **MON-1445**) RR Technology

| Sr. | Codes    | Varities       | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | 1- NIGAB, Islamabad                |                  |                                | 2- ABRI-Faisalabad                 |                  |                                | 3- NIBGE-Faisalabad                |                  |                                | Average of 3 Labs                  |                  |                                | Remarks                                  |
|-----|----------|----------------|---------------|-------------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------------|
|     |          |                |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Roundup-Ready Technology<br>Confirmation |
| 1   | 2        | 3              | 4             | 5                                   | 6                                  | 7                | 8                              | 9                                  | 10               | 11                             | 12                                 | 13               | 14                             | 15                                 | 16               | 17                             | 18                                       |
| 113 | PC-18113 | IUB-13         | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 114 | PC-18114 | Rohi-1         | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | 0                | 0                              | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 115 | PC-18115 | Rustom-11      | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 116 | PC-18116 | SLH-33         | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 117 | PC-18117 | Tassco-112     | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 118 | PC-18118 | Tipu-1524      | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 119 | PC-18119 | VH-402         | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 120 | PC-18120 | Weal AG-7      | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 121 | PC-18121 | Weal AG-8      | Bt            | Cry1AC/Mon-531                      | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 122 | PC-18122 | CIM-717        | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 123 | PC-18123 | Cyto-225       | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 124 | PC-18124 | CRIS-613       | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 125 | PC-18125 | TH-88/11       | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 126 | PC-18126 | CIM-620        | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 127 | PC-18127 | GS-Ali-7       | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 128 | PC-18128 | CRIS-552       | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 129 | PC-18129 | NIAB-191       | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 130 | PC-18130 | CRIS-510       | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 131 | PC-18131 | NIAB-818       | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
| 132 | PC-18132 | GS-Ali-9       | Non-Bt        | Nil                                 | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Not Confirmed                            |
|     |          | <b>Average</b> |               |                                     |                                    | NT               | NT                             |                                    | 56               | 3.85                           |                                    | 60               | 14.00                          |                                    | NT               | NT                             |                                          |

Pakistan Central Cotton Committee (PCCC)

Directorate of Agricultural Research (DAR)

## 2018 NCVT - BCT Test Results from CEMB-Lahore

Annexure-IV: Test-4: Testing Results for **Cry1Ac (C-I); Cr2A (C-II) and GTG (C-III) genes (Technologies)** of CEMB

| Sr. | Codes   | Varities   | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | Cry1ac                             |                     |                                | Cry2A                              |                     |                                | GTG                                |                     |                                | Technologies Confirmation |               |                     |
|-----|---------|------------|---------------|-------------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|---------------------------|---------------|---------------------|
|     |         |            |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Cry1ac                    | Cry1ac+Cr2A   | Cry1ac+Cr2A<br>+GTG |
| 1   | 2       | 3          | 4             | 5                                   | 6                                  | 7                   | 8                              | 9                                  | 10                  | 11                             | 12                                 | 13                  | 14                             | 15                        | 16            | 17                  |
| 1   | PC-1801 | CIM-717    | Non-Bt        | Nil                                 | +                                  | 80                  | 2.53                           | +                                  | 80                  | 2.63                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |
| 2   | PC-1802 | Cyto-225   | Non-Bt        | Nil                                 | +                                  | 80                  | 2.19                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed       |
| 3   | PC-1803 | CRIS-613   | Non-Bt        | Nil                                 | +                                  | 80                  | 2.39                           | +                                  | 80                  | 2.19                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |
| 4   | PC-1804 | TH-88/11   | Non-Bt        | Nil                                 | +                                  | 70                  | 2.48                           | +                                  | 80                  | 2.45                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |
| 5   | PC-1805 | CIM-620    | Non-Bt        | Nil                                 | +                                  | 100                 | 2.38                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed       |
| 6   | PC-1806 | GS-Ali-7   | Non-Bt        | Nil                                 | +                                  | 60                  | 2.37                           | +                                  | 60                  | 2.33                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |
| 7   | PC-1807 | CRIS-552   | Non-Bt        | Nil                                 | +                                  | 80                  | 2.70                           | +                                  | 80                  | 2.43                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |
| 8   | PC-1808 | NIAB-191   | Non-Bt        | Nil                                 | +                                  | 80                  | 2.63                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed       |
| 9   | PC-1809 | CRIS-510   | Non-Bt        | Nil                                 | +                                  | 80                  | 2.23                           | +                                  | 80                  | 2.13                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |
| 10  | PC-1810 | NIAB-818   | Non-Bt        | Nil                                 | +                                  | 100                 | 2.65                           | +                                  | 100                 | 2.35                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |
| 11  | PC-1811 | GS-Ali-9   | Non-Bt        | Nil                                 | +                                  | 80                  | 2.62                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed       |
| 12  | PC-1812 | Bahar-07   | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.83                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed       |
| 13  | PC-1813 | AA-933     | Bt            | Cry1AC/Mon-531                      | +                                  | 70                  | 3.37                           | +                                  | 90                  | 3.37                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |
| 14  | PC-1814 | Auriga-216 | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 3.05                           | +                                  | 100                 | 3.05                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |
| 15  | PC-1815 | Bahar-2017 | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.92                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed       |
| 16  | PC-1816 | BH-221     | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 2.8                            | +                                  | 80                  | 2.45                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |
| 17  | PC-1817 | BS-18      | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.13                           | +                                  | 80                  | 2.03                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |
| 18  | PC-1818 | Bt.CIM-343 | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 3.98                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed       |
| 19  | PC-1819 | Bt.CIM-663 | Bt            | Cry1AC/Mon-531                      | +                                  | 70                  | 2.05                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed       |
| 20  | PC-1820 | CIM-602    | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.76                           | +                                  | 80                  | 2.66                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |
| 21  | PC-1821 | BZU-05     | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.84                           | +                                  | 80                  | 2.94                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |
| 22  | PC-1822 | Cyto-515   | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 3.56                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed       |
| 23  | PC-1823 | Evyol-148  | Bt            | Cry1AC/Mon-531                      | +                                  | 70                  | 3.65                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed       |
| 24  | PC-1824 | FH-444     | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.06                           | +                                  | 80                  | 2.52                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed       |

| Pakistan Central Cotton Committee (PCCC)                                                                                |         |             |               |                                     |                                    |                  |                                |                                    |                  |                                |                                    |                  |                                |                           |               |                      |
|-------------------------------------------------------------------------------------------------------------------------|---------|-------------|---------------|-------------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|---------------------------|---------------|----------------------|
| Directorate of Agricultural Research (DAR)                                                                              |         |             |               |                                     |                                    |                  |                                |                                    |                  |                                |                                    |                  |                                |                           |               |                      |
| 2018 NCVT - BCT Test Results from CEMB-Lahore                                                                           |         |             |               |                                     |                                    |                  |                                |                                    |                  |                                |                                    |                  |                                |                           |               |                      |
| Annexure-IV: Test-4: Testing Results for <b>Cry1Ac (C-I); Cr2A (C-II) and GTG (C-III ) genes (Technologies)</b> of CEMB |         |             |               |                                     |                                    |                  |                                |                                    |                  |                                |                                    |                  |                                |                           |               |                      |
| Sr.                                                                                                                     | Codes   | Varities    | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | Cry1ac                             |                  |                                | Cry2A                              |                  |                                | GTG                                |                  |                                | Technologies Confirmation |               |                      |
|                                                                                                                         |         |             |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Cry1ac                    | Cry1ac+Cry2A  | Cry1ac+Cry2A+GT<br>G |
| 1                                                                                                                       | 2       | 3           | 4             | 5                                   | 6                                  | 7                | 8                              | 9                                  | 10               | 11                             | 12                                 | 13               | 14                             | 15                        | 16            | 17                   |
| 25                                                                                                                      | PC-1825 | FH-490      | Bt            | Cry1AC/Mon-531                      | +                                  | 70               | 2.82                           | +                                  | 70               | 2.02                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 26                                                                                                                      | PC-1826 | GH-Haadi    | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.75                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 27                                                                                                                      | PC-1827 | GH-Mubarak  | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.15                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 28                                                                                                                      | PC-1828 | ICI-2121    | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 1.98                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 29                                                                                                                      | PC-1829 | IUB-13      | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.61                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 30                                                                                                                      | PC-1830 | IR-NIBGE-11 | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.51                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 31                                                                                                                      | PC-1831 | IUB-69      | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 2.15                           | +                                  | 100              | 2.15                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 32                                                                                                                      | PC-1832 | KZ-125      | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 3.30                           | +                                  | 100              | 3.30                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 33                                                                                                                      | PC-1833 | MNH-1020    | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.92                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 34                                                                                                                      | PC-1834 | MNH-1026    | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 3.25                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 35                                                                                                                      | PC-1835 | NIA-85      | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 3.36                           | +                                  | 80               | 2.36                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 36                                                                                                                      | PC-1836 | NIAB-898    | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.65                           | +                                  | 80               | 2.65                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 37                                                                                                                      | PC-1837 | NS-191      | Bt            | Cry1AC/Mon-531                      | +                                  | 70               | 2.19                           | +                                  | 70               | 2.19                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 38                                                                                                                      | PC-1838 | RH-Afnan    | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 3.23                           | +                                  | 80               | 3.23                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 39                                                                                                                      | PC-1839 | RH-Manthar  | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.80                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 40                                                                                                                      | PC-1840 | Sahara-210  | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 3.47                           | +                                  | 100              | 3.47                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 41                                                                                                                      | PC-1841 | Shahab-7    | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.95                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 42                                                                                                                      | PC-1842 | Shaheen-16  | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 3.14                           | +                                  | 80               | 3.14                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 43                                                                                                                      | PC-1843 | Sitara-16   | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 1.92                           | +                                  | 80               | 2.92                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 44                                                                                                                      | PC-1844 | SLH-19      | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.97                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 45                                                                                                                      | PC-1845 | SLH-6       | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.15                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 46                                                                                                                      | PC-1846 | Suncrop-5   | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 3.17                           | +                                  | 80               | 2.17                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 47                                                                                                                      | PC-1847 | CIM-602     | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.82                           | +                                  | 80               | 2.45                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 48                                                                                                                      | PC-1848 | Suncrop-6   | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 2.74                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 49                                                                                                                      | PC-1849 | Tassco-902  | Bt            | Cry1AC/Mon-531                      | +                                  | 70               | 3.50                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |



| Pakistan Central Cotton Committee (PCCC)                                                                                |         |                     |               |                                     |                                    |                  |                                |                                    |                  |                                |                                    |                  |                                |                           |               |                      |
|-------------------------------------------------------------------------------------------------------------------------|---------|---------------------|---------------|-------------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|---------------------------|---------------|----------------------|
| Directorate of Agricultural Research (DAR)                                                                              |         |                     |               |                                     |                                    |                  |                                |                                    |                  |                                |                                    |                  |                                |                           |               |                      |
| 2018 NCVT - BCT Test Results from CEMB-Lahore                                                                           |         |                     |               |                                     |                                    |                  |                                |                                    |                  |                                |                                    |                  |                                |                           |               |                      |
| Annexure-IV: Test-4: Testing Results for <b>Cry1Ac (C-I); Cr2A (C-II) and GTG (C-III ) genes (Technologies)</b> of CEMB |         |                     |               |                                     |                                    |                  |                                |                                    |                  |                                |                                    |                  |                                |                           |               |                      |
| Sr.                                                                                                                     | Codes   | Varities            | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | Cry1ac                             |                  |                                | Cry2A                              |                  |                                | GTG                                |                  |                                | Technologies Confirmation |               |                      |
|                                                                                                                         |         |                     |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Cry1ac                    | Cry1ac+Cry2A  | Cry1ac+Cry2A+GT<br>G |
| 1                                                                                                                       | 2       | 3                   | 4             | 5                                   | 6                                  | 7                | 8                              | 9                                  | 10               | 11                             | 12                                 | 13               | 14                             | 15                        | 16            | 17                   |
| 50                                                                                                                      | PC-1850 | Tipu-9              | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 3.05                           | +                                  | 80               | 3.05                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 51                                                                                                                      | PC-1851 | VH-189              | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.80                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 52                                                                                                                      | PC-1852 | VH-383              | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.19                           | +                                  | 80               | 2.39                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 53                                                                                                                      | PC-1853 | Weal AG-5           | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 2.18                           | +                                  | 100              | 2.28                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 54                                                                                                                      | PC-1854 | Weal AG-6           | Bt            | Cry1AC/Mon-531                      | +                                  | 70               | 2.01                           | +                                  | 70               | 2.51                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 55                                                                                                                      | PC-1855 | Badar-1 (CII)       | Bt            | Cry1AC+Cry2A                        | +                                  | 70               | 3.46                           | +                                  | 70               | 3.76                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 56                                                                                                                      | PC-1856 | IUB-13              | Bt            | Cry1AC/Mon-531                      | +                                  | 70               | 3.50                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 57                                                                                                                      | PC-1857 | CII-CEMB-100        | Bt            | Cry1AC+Cry2A                        | +                                  | 80               | 2.92                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 58                                                                                                                      | PC-1858 | CII-CEMB-101        | Bt            | Cry1AC+Cry2A                        | +                                  | 80               | 3.52                           | +                                  | 80               | 2.52                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 59                                                                                                                      | PC-1859 | NU-21 (CII)         | Bt            | Cry1AC+Cry2A                        | +                                  | 100              | 2.66                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 60                                                                                                                      | PC-1860 | Sahara-2020 (CII)   | Bt            | Cry1AC+Cry2A                        | +                                  | 80               | 2.99                           | +                                  | 80               | 2.32                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 61                                                                                                                      | PC-1861 | Tahafuz-10 (CII)    | Bt            | Cry1AC+Cry2A                        | +                                  | 60               | 2.76                           | +                                  | 80               | 2.45                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 62                                                                                                                      | PC-1862 | TJ-Max (CII)        | Bt            | Cry1AC+Cry2A                        | +                                  | 70               | 2.72                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 63                                                                                                                      | PC-1863 | CII-Badar-2         | Bt            | Cry1AC+Cry2A                        | +                                  | 80               | 2.68                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 64                                                                                                                      | PC-1864 | CII-CEMB-102        | Bt            | Cry1AC+Cry2A                        | +                                  | 100              | 2.79                           | +                                  | 100              | 2.34                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 65                                                                                                                      | PC-1865 | CII-ICI-2222        | Bt            | Cry1AC+Cry2A                        | +                                  | 90               | 2.62                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 66                                                                                                                      | PC-1866 | CII-Suncrop         | Bt            | Cry1AC+Cry2A                        | +                                  | 100              | 2.47                           | +                                  | 100              | 2.07                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 67                                                                                                                      | PC-1867 | CII-Tahafuz-12      | Bt            | Cry1AC+Cry2A                        | +                                  | 90               | 3.28                           | +                                  | 90               | 3.28                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 68                                                                                                                      | PC-1868 | CII-TJ-King         | Bt            | Cry1AC+Cry2A                        | +                                  | 100              | 2.60                           | +                                  | 100              | 2.56                           | +                                  | 100              | +                              | Confirmed                 | Confirmed     | Confirmed            |
| 69                                                                                                                      | PC-1869 | CEMB-Klean Cotton-1 | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 90               | 2.53                           | +                                  | 90               | 2.32                           | +                                  | 90               | +                              | Confirmed                 | Confirmed     | Confirmed            |
| 70                                                                                                                      | PC-1870 | CEMB-Klean Cotton-2 | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 90               | 3.21                           | +                                  | 90               | 2.91                           | +                                  | 90               | +                              | Confirmed                 | Confirmed     | Confirmed            |
| 71                                                                                                                      | PC-1871 | Ghuri-1 (CKC)       | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 100              | 3.31                           | +                                  | 100              | 3.01                           | +                                  | 100              | +                              | Confirmed                 | Confirmed     | Confirmed            |
| 72                                                                                                                      | PC-1872 | Hatf-1 (CKC)        | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 90               | 3.39                           | +                                  | 90               | 2.39                           | +                                  | 90               | +                              | Confirmed                 | Confirmed     | Confirmed            |
| 73                                                                                                                      | PC-1873 | CKC-3               | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 90               | 3.62                           | +                                  | 90               | 2.62                           | +                                  | 90               | +                              | Confirmed                 | Confirmed     | Confirmed            |
| 74                                                                                                                      | PC-1874 | CKC-4               | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 100              | 3.00                           | +                                  | 100              | 2.90                           | +                                  | 100              | +                              | Confirmed                 | Confirmed     | Confirmed            |
| 75                                                                                                                      | PC-1875 | CKC-Clean Flex      | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 80               | 3.65                           | +                                  | 80               | 3.65                           | +                                  | 90               | +                              | Confirmed                 | Confirmed     | Confirmed            |
| 76                                                                                                                      | PC-1876 | CKC-Hatf-3          | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 100              | 3.66                           | +                                  | 100              | 2.66                           | +                                  | 100              | +                              | Confirmed                 | Confirmed     | Confirmed            |

| Pakistan Central Cotton Committee (PCCC)                                                                                              |          |                      |               |                                     |                                    |                  |                                |                                    |                  |                                |                                    |                  |                                |                           |               |                  |
|---------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------|---------------|-------------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|------------------------------------|------------------|--------------------------------|---------------------------|---------------|------------------|
| Directorate of Agricultural Research (DAR)                                                                                            |          |                      |               |                                     |                                    |                  |                                |                                    |                  |                                |                                    |                  |                                |                           |               |                  |
| 2018 NCVT - BCT Test Results from CEMB-Lahore                                                                                         |          |                      |               |                                     |                                    |                  |                                |                                    |                  |                                |                                    |                  |                                |                           |               |                  |
| Annexure-IV: Test-4: Testing Results for <b>Cry1Ac (C-I)</b> ; <b>Cr2A (C-II)</b> and <b>GTG (C-III)</b> genes (Technologies) of CEMB |          |                      |               |                                     |                                    |                  |                                |                                    |                  |                                |                                    |                  |                                |                           |               |                  |
| Sr.                                                                                                                                   | Codes    | Varities             | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | Cry1ac                             |                  |                                | Cry2A                              |                  |                                | GTG                                |                  |                                | Technologies Confirmation |               |                  |
|                                                                                                                                       |          |                      |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait Purity (%) | Quantification<br>ELISA (µg/g) | Cry1ac                    | Cry1ac+Cry2A  | Cry1ac+Cry2A+GTG |
| 1                                                                                                                                     | 2        | 3                    | 4             | 5                                   | 15                                 | 16               | 17                             | 15                                 | 16               | 17                             | 15                                 | 16               | 17                             | 15                        | 16            | 17               |
| 77                                                                                                                                    | PC-1877  | CIM-602              | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 3.46                           | +                                  | 100              | 2.86                           | +                                  | 100              | +                              | Confirmed                 | Confirmed     | Confirmed        |
| 78                                                                                                                                    | PC-1878  | CKC-ICI-2323         | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 90               | 3.50                           | +                                  | 90               | 2.50                           | -                                  | 0                | 0                              | Confirmed                 | Confirmed     | Not Confirmed    |
| 79                                                                                                                                    | PC-1879  | CKC-Sahara-Klean     | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 100              | 3.68                           | +                                  | 100              | 3.08                           | +                                  | 100              | +                              | Confirmed                 | Confirmed     | Confirmed        |
| 80                                                                                                                                    | PC-1880  | CKC-TJ-Inqilab       | Bt            | Cry1AC+Cry2A+GTG                    | +                                  | 90               | 3.72                           | +                                  | 90               | 2.72                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed    |
| 81                                                                                                                                    | PC-1881  | BF-1                 | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 3.49                           | +                                  | 100              | 2.49                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed    |
| 82                                                                                                                                    | PC-1882  | BH-223               | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 3.27                           | +                                  | 80               | 2.37                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed    |
| 83                                                                                                                                    | PC-1883  | BS-20                | Bt            | Cry1AC/Mon-531                      | +                                  | 70               | 3.20                           | +                                  | 70               | 2.80                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed    |
| 84                                                                                                                                    | PC-1884  | Bt. CIM-303          | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 2.85                           | +                                  | 100              | 2.85                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed    |
| 85                                                                                                                                    | PC-1885  | Bt. CIM-678          | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.31                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed    |
| 86                                                                                                                                    | PC-1886  | IUB-13               | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.29                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed    |
| 87                                                                                                                                    | PC-1887  | Bt. CIM-789          | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.69                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed    |
| 88                                                                                                                                    | PC-1888  | BZU-07               | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.57                           | +                                  | 80               | 2.57                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed    |
| 89                                                                                                                                    | PC-1889  | CRIS-671             | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.21                           | +                                  | 80               | 2.21                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed    |
| 90                                                                                                                                    | PC-1890  | CRIS-673             | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 2.52                           | +                                  | 100              | 2.52                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed    |
| 91                                                                                                                                    | PC-1891  | Crystal-20           | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.56                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed    |
| 92                                                                                                                                    | PC-1892  | Cyto-510             | Bt            | Cry1AC/Mon-531                      | +                                  | 70               | 2.46                           | +                                  | 80               | 2.45                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed    |
| 93                                                                                                                                    | PC-1893  | Cyto-511             | Bt            | Cry1AC/Mon-531                      | +                                  | 70               | 2.31                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed    |
| 94                                                                                                                                    | PC-1894  | Eagle-3              | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.11                           | +                                  | 80               | 2.11                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed    |
| 95                                                                                                                                    | PC-1895  | Eye-111              | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.11                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed    |
| 96                                                                                                                                    | PC-1896  | Eye-20               | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.25                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed    |
| 97                                                                                                                                    | PC-1897  | FH-155               | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.23                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed    |
| 98                                                                                                                                    | PC-1898  | FH-AM Cotton-2017    | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.81                           | +                                  | 80               | 2.81                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed    |
| 99                                                                                                                                    | PC-1899  | FH-Super Cotton-2017 | Bt            | Cry1AC/Mon-531                      | +                                  | 100              | 2.13                           | +                                  | 100              | 2.13                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed    |
| 100                                                                                                                                   | PC-18100 | GH-UHAD              | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.32                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed    |
| 101                                                                                                                                   | PC-18101 | ICI-2424             | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 1.84                           | +                                  | 80               | 2.84                           | -                                  | NT               | NT                             | Confirmed                 | Confirmed     | Not Confirmed    |
| 102                                                                                                                                   | PC-18102 | IR-NIBGE-12          | Bt            | Cry1AC/Mon-531                      | +                                  | 80               | 2.82                           | -                                  | NT               | NT                             | -                                  | NT               | NT                             | Confirmed                 | Not Confirmed | Not Confirmed    |

| Pakistan Central Cotton Committee (PCCC)                                                                                |          |             |               |                                     |                                    |                     |                                |                                    |                     |                                |                                    |                     |                                |                           |               |                      |
|-------------------------------------------------------------------------------------------------------------------------|----------|-------------|---------------|-------------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|---------------------------|---------------|----------------------|
| Directorate of Agricultural Research (DAR)                                                                              |          |             |               |                                     |                                    |                     |                                |                                    |                     |                                |                                    |                     |                                |                           |               |                      |
| 2018 NCVT - BCT Test Results from CEMB-Lahore                                                                           |          |             |               |                                     |                                    |                     |                                |                                    |                     |                                |                                    |                     |                                |                           |               |                      |
| Annexure-IV: Test-4: Testing Results for <b>Cry1Ac (C-I); Cr2A (C-II) and GTG (C-III ) genes (Technologies)</b> of CEMB |          |             |               |                                     |                                    |                     |                                |                                    |                     |                                |                                    |                     |                                |                           |               |                      |
| Sr.                                                                                                                     | Codes    | Varities    | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | Cry1ac                             |                     |                                | Cry2A                              |                     |                                | GTG                                |                     |                                | Technologies Confirmation |               |                      |
|                                                                                                                         |          |             |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Cry1ac                    | Cry1ac+Cry2A  | Cry1ac+Cry2A+GT<br>G |
| 1                                                                                                                       | 2        | 3           | 4             | 5                                   | 15                                 | 16                  | 17                             | 15                                 | 16                  | 17                             | 15                                 | 16                  | 17                             | 15                        | 16            | 17                   |
| 103                                                                                                                     | PC-18103 | IR-NIBGE-13 | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.23                           | +                                  | 80                  | 2.73                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 104                                                                                                                     | PC-18104 | CIM-602     | Bt            | Cry1AC/Mon-531                      | +                                  | 70                  | 2.21                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 105                                                                                                                     | PC-18105 | IUB-71      | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.50                           | +                                  | 80                  | 2.70                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 106                                                                                                                     | PC-18106 | Koh-i-Noor  | Bt            | Cry1AC/Mon-531                      | +                                  | 70                  | 2.66                           | +                                  | 90                  | 2.66                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 107                                                                                                                     | PC-18107 | MNH-1035    | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.61                           | +                                  | 80                  | 2.45                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 108                                                                                                                     | PC-18108 | MZM-7       | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.80                           | +                                  | 80                  | 2.82                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 109                                                                                                                     | PC-18109 | NIAB-1011   | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.44                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 110                                                                                                                     | PC-18110 | NIAB-135    | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.32                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 111                                                                                                                     | PC-18111 | NS-201      | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.33                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 112                                                                                                                     | PC-18112 | RH-670      | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 2.52                           | +                                  | 100                 | 2.52                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 113                                                                                                                     | PC-18113 | IUB-13      | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.13                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 114                                                                                                                     | PC-18114 | Rohi-1      | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.02                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 115                                                                                                                     | PC-18115 | Rustom-11   | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.84                           | +                                  | 80                  | 2.84                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 116                                                                                                                     | PC-18116 | SLH-33      | Bt            | Cry1AC/Mon-531                      | +                                  | 100                 | 2.02                           | +                                  | 100                 | 2.62                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 117                                                                                                                     | PC-18117 | Tassco-112  | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 3.14                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 118                                                                                                                     | PC-18118 | Tipu-1524   | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 3.32                           | +                                  | 80                  | 3.32                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 119                                                                                                                     | PC-18119 | VH-402      | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.71                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 120                                                                                                                     | PC-18120 | Weal AG-7   | Bt            | Cry1AC/Mon-531                      | +                                  | 70                  | 2.61                           | +                                  | 80                  | 2.64                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 121                                                                                                                     | PC-18121 | Weal AG-8   | Bt            | Cry1AC/Mon-531                      | +                                  | 80                  | 2.80                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 122                                                                                                                     | PC-18122 | CIM-717     | Non-Bt        | Nil                                 | +                                  | 80                  | 2.64                           | +                                  | 80                  | 3.09                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 123                                                                                                                     | PC-18123 | Cyto-225    | Non-Bt        | Nil                                 | +                                  | 80                  | 2.36                           | +                                  | 80                  | 3.23                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 124                                                                                                                     | PC-18124 | CRIS-613    | Non-Bt        | Nil                                 | +                                  | 80                  | 2.36                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 125                                                                                                                     | PC-18125 | TH-88/11    | Non-Bt        | Nil                                 | +                                  | 80                  | 2.56                           | +                                  | 80                  | 2.66                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 126                                                                                                                     | PC-18126 | CIM-620     | Non-Bt        | Nil                                 | +                                  | 80                  | 2.83                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |

| Pakistan Central Cotton Committee (PCCC)                                                                                              |          |          |               |                                     |                                    |                     |                                |                                    |                     |                                |                                    |                     |                                |                           |               |                      |
|---------------------------------------------------------------------------------------------------------------------------------------|----------|----------|---------------|-------------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|------------------------------------|---------------------|--------------------------------|---------------------------|---------------|----------------------|
| Directorate of Agricultural Research (DAR)                                                                                            |          |          |               |                                     |                                    |                     |                                |                                    |                     |                                |                                    |                     |                                |                           |               |                      |
| 2018 NCVT - BCT Test Results from CEMB-Lahore                                                                                         |          |          |               |                                     |                                    |                     |                                |                                    |                     |                                |                                    |                     |                                |                           |               |                      |
| Annexure-IV: Test-4: Testing Results for <b>Cry1Ac (C-I)</b> ; <b>Cr2A (C-II)</b> and <b>GTG (C-III)</b> genes (Technologies) of CEMB |          |          |               |                                     |                                    |                     |                                |                                    |                     |                                |                                    |                     |                                |                           |               |                      |
| Sr.                                                                                                                                   | Codes    | Varities | Non Bt/<br>Bt | Claimed Technology<br>(Gene/ Event) | Cry1ac                             |                     |                                | Cry2A                              |                     |                                | GTG                                |                     |                                | Technologies Confirmation |               |                      |
|                                                                                                                                       |          |          |               |                                     | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Trait<br>Confirmation<br>(+/-) PCR | Trait<br>Purity (%) | Quantification<br>ELISA (µg/g) | Cry1ac                    | Cry1ac+Cry2A  | Cry1ac+Cry2A+GT<br>G |
| 1                                                                                                                                     | 2        | 3        | 4             | 5                                   | 15                                 | 16                  | 17                             | 15                                 | 16                  | 17                             | 15                                 | 16                  | 17                             | 15                        | 16            | 17                   |
| 127                                                                                                                                   | PC-18127 | GS-Ali-7 | Non-Bt        | Nil                                 | +                                  | 100                 | 3.02                           | +                                  | 100                 | 3.65                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 128                                                                                                                                   | PC-18128 | CRIS-552 | Non-Bt        | Nil                                 | +                                  | 80                  | 2.44                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 129                                                                                                                                   | PC-18129 | NIAB-191 | Non-Bt        | Nil                                 | +                                  | 80                  | 2.02                           | +                                  | 80                  | 3.12                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 130                                                                                                                                   | PC-18130 | CRIS-510 | Non-Bt        | Nil                                 | +                                  | 80                  | 3.64                           | +                                  | 80                  | 2.56                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
| 131                                                                                                                                   | PC-18131 | NIAB-818 | Non-Bt        | Nil                                 | +                                  | 80                  | 3.72                           | -                                  | NT                  | NT                             | -                                  | NT                  | NT                             | Confirmed                 | Not Confirmed | Not Confirmed        |
| 132                                                                                                                                   | PC-18132 | GS-Ali-9 | Non-Bt        | Nil                                 | +                                  | 80                  | 2.77                           | +                                  | 80                  | 2.87                           | -                                  | NT                  | NT                             | Confirmed                 | Confirmed     | Not Confirmed        |
|                                                                                                                                       |          | Average  |               |                                     |                                    | 80                  | 3.14                           |                                    | 81                  | 3.39                           |                                    | 73                  | 12.75                          | ****                      | ****          | ****                 |

Note: Errors and omissions are accepted, Please.



(Dr. Tassawar Hussain Malik)  
Director Research Headquarters

Annex-VIII/ Page 25/25