

Table 19. 2017 Performance of Conventional Varieties - ACSC Official Trials
6 sites - All Characters

| *Unadjusted Variety @ | Rec/T Code | Rec/T lbs. | Rec/T %Mean | Rec/A lbs. | Rec/A %Mean | Loss Mol % | Rev/T \$ ++ | Rev/T %Mean | Rev/A \$ ++ | Rev/A %Mean | Sugar % | Yield T/A | Na ppm | K ppm | AmN ppm | Bolter /Ac | Emerg. % |
|--------------------------|---------------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|------------|--------------|-----------|----------|------------|---------------|-------------|
| BETA EXP 687 | 807 | 345.1 | 102 | 10123 | 100 | 1.22 | 56.11 | 104 | 1633 | 102 | 18.47 | 29.59 | 175 | 1690 | 431 | 0 | 72.4 |
| BETA EXP 698 | 808 | 335.6 | 99 | 10304 | 101 | 1.14 | 53.21 | 99 | 1615 | 101 | 17.92 | 31.10 | 213 | 1659 | 363 | 0 | 75.9 |
| BETA EXP 747 | 810 | 333.5 | 99 | 10556 | 104 | 1.15 | 52.59 | 98 | 1652 | 103 | 17.83 | 31.91 | 241 | 1510 | 405 | 0 | 74.8 |
| BETA EXP 758 | 817 | 337.8 | 100 | 10331 | 102 | 1.13 | 53.88 | 100 | 1638 | 102 | 18.02 | 30.79 | 206 | 1655 | 358 | 0 | 78.1 |
| Crystal 620 | 811 | 338.1 | 100 | 10783 | 106 | 1.15 | 53.96 | 100 | 1706 | 106 | 18.05 | 32.19 | 189 | 1600 | 401 | 0 | 69.4 |
| Crystal 622 | 801 | 340.3 | 101 | 9650 | 95 | 1.25 | 54.64 | 102 | 1532 | 95 | 18.26 | 28.72 | 201 | 1681 | 444 | 0 | 66.4 |
| Crystal 735 | 814 | 351.8 | 104 | 9832 | 97 | 1.09 | 58.13 | 108 | 1616 | 101 | 18.69 | 28.12 | 159 | 1535 | 382 | 0 | 67.8 |
| Crystal 737 | 806 | 336.8 | 100 | 9878 | 97 | 1.25 | 53.57 | 100 | 1555 | 97 | 18.09 | 29.65 | 240 | 1680 | 436 | 0 | 69.4 |
| Crystal R761 | 819 | 328.7 | 97 | 10896 | 107 | 1.28 | 51.12 | 95 | 1691 | 105 | 17.72 | 33.22 | 247 | 1813 | 422 | 0 | 74.1 |
| Hilleshög 3035Rz | 805 | 339.3 | 101 | 9182 | 90 | 1.21 | 54.33 | 101 | 1457 | 91 | 18.17 | 27.34 | 202 | 1625 | 429 | 18 | 80.4 |
| Hilleshög 9891Rz | 812 | 341.3 | 101 | 9268 | 91 | 1.19 | 54.95 | 102 | 1481 | 92 | 18.26 | 27.37 | 178 | 1637 | 425 | 0 | 76.6 |
| Maribo MA615Rz | 818 | 330.6 | 98 | 10191 | 100 | 1.27 | 51.71 | 96 | 1586 | 99 | 17.80 | 30.98 | 271 | 1709 | 430 | 0 | 80.0 |
| Maribo MA720Rz | 816 | 342.1 | 101 | 9919 | 98 | 1.13 | 55.19 | 103 | 1586 | 99 | 18.23 | 29.26 | 199 | 1558 | 390 | 0 | 83.6 |
| Seedex 8869 | 809 | 338.4 | 100 | 10942 | 108 | 1.09 | 54.07 | 101 | 1741 | 108 | 18.02 | 32.49 | 197 | 1669 | 333 | 0 | 74.7 |
| Seedex Deuce | 802 | 337.9 | 100 | 11246 | 111 | 1.10 | 53.90 | 100 | 1790 | 111 | 18.00 | 33.36 | 207 | 1692 | 329 | 18 | 74.8 |
| Strube 12720 | 813 | 329.5 | 98 | 11314 | 111 | 1.11 | 51.36 | 96 | 1753 | 109 | 17.58 | 34.56 | 226 | 1687 | 328 | 0 | 75.0 |
| Strube 13722 | 804 | 326.3 | 97 | 11043 | 109 | 1.15 | 50.40 | 94 | 1696 | 106 | 17.46 | 34.04 | 230 | 1777 | 333 | 0 | 79.2 |
| SV 48611 | 815 | 343.2 | 102 | 10325 | 102 | 1.13 | 55.52 | 103 | 1669 | 104 | 18.30 | 30.12 | 191 | 1598 | 383 | 0 | 68.9 |
| SV 48777 | 803 | 349.4 | 104 | 10409 | 103 | 1.02 | 57.39 | 107 | 1701 | 106 | 18.49 | 29.98 | 171 | 1627 | 296 | 0 | 72.0 |
| Crystal 355RR(Check) | 820 | 338.5 | 100 | 9880 | 97 | 1.24 | 54.10 | 101 | 1563 | 97 | 18.17 | 29.50 | 197 | 1680 | 444 | 0 | 75.5 |
| BTS 80RR52(Check) | 821 | 334.1 | 99 | 10171 | 100 | 1.24 | 52.77 | 98 | 1590 | 99 | 17.95 | 30.77 | 194 | 1685 | 443 | 0 | 77.6 |
| Crystal 101RR (Check) | 822 | 330.5 | 98 | 10855 | 107 | 1.28 | 51.68 | 96 | 1689 | 105 | 17.81 | 33.02 | 256 | 1780 | 426 | 0 | 73.1 |
| Hilleshög 4302RR (Check) | 823 | 336.3 | 100 | 9167 | 90 | 1.12 | 53.43 | 99 | 1446 | 90 | 17.94 | 27.45 | 233 | 1636 | 350 | 18 | 60.6 |
| Maribo Ultramono(Filler) | 824 | 330.6 | 98 | 7431 | 73 | 1.28 | 51.72 | 96 | 1152 | 72 | 17.81 | 22.69 | 293 | 1769 | 411 | 0 | 61.2 |
| Benchmark Mean | | 334.9 | | 10018 | | 1.22 | 53.00 | | 1572 | | 17.97 | 30.19 | 220 | 1695 | 416 | | 71.7 |
| Trial Mean | | 337.3 | | 10154 | | 1.18 | 53.74 | | 1606 | | 18.04 | 30.34 | 213 | 1665 | 391 | | 73.4 |
| Coeff. of Var. (%) | | 2.4 | | 6.5 | | 7.2 | 4.5 | | 7.3 | | 2.1 | 6.5 | 18.5 | 4.7 | 13.5 | | 9.9 |
| Mean LSD (0.05) | | 7.2 | | 718 | | 0.08 | 2.18 | | 128 | | 0.34 | 2.06 | 35 | 59 | 50 | | 5.7 |
| Mean LSD (0.01) | | 9.5 | | 949 | | 0.10 | 2.89 | | 169 | | 0.45 | 2.72 | 46 | 77 | 66 | | 7.5 |
| Sig Lvl | | ** | | ** | | ** | ** | | ** | | ** | ** | ** | ** | ** | | ** |

*Actual data output without adjustment factor.

%Mean = percentage of trial mean.

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$48.49 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Created 11/01/2017

Trial # = 17ACSCnv

Table 20. 2017 Performance of Conventional Varieties - ACSC Official Trials
Casselton ND - All Characters

| *Unadjusted Variety @ | Code | Rec/T lbs. | Rec/T %Mean | Rec/A lbs. | Rec/A %Mean | Loss Mol % | Rev/T \$ ++ | Rev/T %Mean | Rev/A \$ ++ | Rev/A %Mean | Sugar % | Yield T/A | Na ppm | K ppm | AmN ppm | Bolter /Ac | Emerg. % |
|--------------------------|------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|------------|--------------|-----------|----------|------------|---------------|-------------|
| BETA EXP 687 | 807 | 349.9 | 102 | 8737 | 108 | 1.54 | 57.53 | 103 | 1438 | 110 | 19.02 | 24.91 | 157 | 2105 | 576 | 0 | 73.3 |
| BETA EXP 698 | 808 | 351.0 | 102 | 7696 | 95 | 1.30 | 57.89 | 104 | 1273 | 97 | 18.84 | 21.83 | 175 | 2071 | 399 | 0 | 82.8 |
| BETA EXP 747 | 810 | 343.3 | 100 | 8004 | 99 | 1.33 | 55.53 | 99 | 1297 | 99 | 18.50 | 23.28 | 183 | 1999 | 435 | 0 | 75.9 |
| BETA EXP 758 | 817 | 344.2 | 100 | 7397 | 92 | 1.49 | 55.81 | 100 | 1198 | 92 | 18.71 | 21.50 | 199 | 2109 | 519 | 0 | 74.7 |
| Crystal 620 | 811 | 348.5 | 101 | 8412 | 104 | 1.42 | 57.13 | 102 | 1378 | 105 | 18.84 | 24.16 | 161 | 2018 | 506 | 0 | 64.6 |
| Crystal 622 | 801 | 355.8 | 103 | 8361 | 104 | 1.43 | 59.34 | 106 | 1396 | 107 | 19.23 | 23.49 | 145 | 2071 | 512 | 0 | 69.4 |
| Crystal 735 | 814 | 356.0 | 103 | 7362 | 91 | 1.32 | 59.40 | 106 | 1226 | 94 | 19.12 | 20.70 | 135 | 1910 | 468 | 0 | 67.5 |
| Crystal 737 | 806 | 348.9 | 101 | 8279 | 103 | 1.38 | 57.25 | 103 | 1358 | 104 | 18.83 | 23.76 | 196 | 2117 | 433 | 0 | 73.3 |
| Crystal R761 | 819 | 327.2 | 95 | 8294 | 103 | 1.53 | 50.66 | 91 | 1288 | 98 | 17.88 | 25.26 | 215 | 2242 | 514 | 0 | 74.5 |
| Hilleshög 3035Rz | 805 | 345.6 | 100 | 7217 | 89 | 1.45 | 56.23 | 101 | 1177 | 90 | 18.72 | 20.88 | 166 | 2080 | 508 | 0 | 75.5 |
| Hilleshög 9891Rz | 812 | 343.8 | 100 | 7857 | 97 | 1.39 | 55.71 | 100 | 1273 | 97 | 18.59 | 22.85 | 160 | 2043 | 479 | 0 | 73.3 |
| Maribo MA615Rz | 818 | 328.9 | 96 | 7698 | 95 | 1.60 | 51.19 | 92 | 1200 | 92 | 18.04 | 23.35 | 240 | 2210 | 565 | 0 | 82.9 |
| Maribo MA720Rz | 816 | 354.0 | 103 | 7915 | 98 | 1.32 | 58.79 | 105 | 1312 | 100 | 19.04 | 22.43 | 144 | 1996 | 445 | 0 | 81.2 |
| Seedex 8869 | 809 | 344.7 | 100 | 9405 | 116 | 1.44 | 55.96 | 100 | 1527 | 117 | 18.68 | 27.30 | 168 | 2184 | 477 | 0 | 78.7 |
| Seedex Deuce | 802 | 341.3 | 99 | 8644 | 107 | 1.40 | 54.93 | 98 | 1392 | 106 | 18.47 | 25.31 | 159 | 2205 | 441 | 0 | 77.3 |
| Strube 12720 | 813 | 335.6 | 98 | 8936 | 111 | 1.44 | 53.20 | 95 | 1421 | 109 | 18.21 | 26.53 | 172 | 2152 | 475 | 0 | 72.8 |
| Strube 13722 | 804 | 340.4 | 99 | 10491 | 130 | 1.37 | 54.66 | 98 | 1685 | 129 | 18.38 | 30.81 | 170 | 2198 | 416 | 0 | 70.6 |
| SV 48611 | 815 | 349.5 | 102 | 8355 | 103 | 1.36 | 57.43 | 103 | 1372 | 105 | 18.84 | 23.89 | 140 | 2047 | 462 | 0 | 71.8 |
| SV 48777 | 803 | 352.1 | 102 | 8521 | 106 | 1.24 | 58.21 | 104 | 1407 | 107 | 18.83 | 24.20 | 154 | 2092 | 347 | 0 | 68.1 |
| Crystal 355RR(Check) | 820 | 352.9 | 103 | 7070 | 88 | 1.37 | 58.46 | 105 | 1174 | 90 | 19.01 | 19.98 | 162 | 2076 | 456 | 0 | 72.2 |
| BTS 80RR52(Check) | 821 | 343.2 | 100 | 7596 | 94 | 1.50 | 55.53 | 99 | 1228 | 94 | 18.67 | 22.15 | 159 | 2182 | 527 | 0 | 73.0 |
| Crystal 101RR (Check) | 822 | 323.6 | 94 | 8275 | 102 | 1.62 | 49.58 | 89 | 1266 | 97 | 17.82 | 25.60 | 230 | 2270 | 570 | 0 | 72.3 |
| Hilleshög 4302RR (Check) | 823 | 341.0 | 99 | 6938 | 86 | 1.34 | 54.85 | 98 | 1112 | 85 | 18.41 | 20.48 | 177 | 2086 | 421 | 0 | 52.5 |
| Maribo Ultramono(Filler) | 824 | 340.3 | 99 | 6319 | 78 | 1.57 | 54.63 | 98 | 1013 | 77 | 18.58 | 18.62 | 260 | 2152 | 546 | 0 | 54.1 |
| Benchmark Mean | | 340.2 | | 7470 | | 1.46 | 54.61 | | 1195 | | 18.48 | 22.05 | 182 | 2154 | 494 | | 67.5 |
| Trial Mean | | 344.2 | | 8074 | | 1.42 | 55.83 | | 1309 | | 18.64 | 23.47 | 176 | 2109 | 479 | | 72.2 |
| Coeff. of Var. (%) | | 2.1 | | 6.2 | | 5.7 | 4.0 | | 6.9 | | 1.8 | 5.9 | 12.5 | 2.3 | 11.3 | | 7.9 |
| Mean LSD (0.05) | | 11.2 | | 795 | | 0.12 | 3.40 | | 144 | | 0.51 | 2.20 | 31 | 75 | 82 | | 8.3 |
| Mean LSD (0.01) | | 14.9 | | 1059 | | 0.16 | 4.52 | | 192 | | 0.68 | 2.93 | 41 | 99 | 110 | | 11.0 |
| Sig Lvl | | ** | | ** | | ** | ** | | ** | | ** | ** | ** | ** | ** | | ** |

*Actual data output without adjustment factor.

%Mean = percentage of trial mean.

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$48.49 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Created 10/31/2017

Trial # = 178201

Table 21. 2017 Performance of Conventional Varieties - ACSC Official Trials
Hendrum MN - All Characters

| *Unadjusted Variety @ | Code | Rec/T lbs. | Rec/T %Mean | Rec/A lbs. | Rec/A %Mean | Loss Mol % | Rev/T \$ ++ | Rev/T %Mean | Rev/A \$ ++ | Rev/A %Mean | Sugar % | Yield T/A | Na ppm | K ppm | AmN ppm | Bolter /Ac | Emerg. % |
|--------------------------|------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|------------|--------------|-----------|----------|------------|---------------|-------------|
| BETA EXP 687 | 807 | 324.4 | 101 | 11587 | 102 | 1.31 | 49.82 | 101 | 1780 | 103 | 17.54 | 35.74 | 188 | 1414 | 573 | 0 | 62.2 |
| BETA EXP 698 | 808 | 317.6 | 99 | 11707 | 103 | 1.29 | 47.77 | 97 | 1757 | 102 | 17.17 | 36.96 | 274 | 1325 | 546 | 0 | 62.8 |
| BETA EXP 747 | 810 | 317.0 | 98 | 11787 | 104 | 1.34 | 47.59 | 97 | 1770 | 102 | 17.20 | 37.18 | 312 | 1202 | 602 | 0 | 57.9 |
| BETA EXP 758 | 817 | 320.9 | 100 | 11893 | 105 | 1.19 | 48.76 | 99 | 1816 | 105 | 17.24 | 36.89 | 195 | 1383 | 482 | 0 | 73.9 |
| Crystal 620 | 811 | 320.1 | 99 | 11628 | 102 | 1.30 | 48.52 | 99 | 1762 | 102 | 17.32 | 36.40 | 222 | 1335 | 577 | 0 | 56.6 |
| Crystal 622 | 801 | 319.7 | 99 | 10612 | 93 | 1.37 | 48.40 | 99 | 1599 | 92 | 17.34 | 33.34 | 209 | 1380 | 618 | 0 | 59.2 |
| Crystal 735 | 814 | 339.2 | 105 | 10440 | 92 | 1.27 | 54.31 | 111 | 1671 | 97 | 18.24 | 30.81 | 200 | 1328 | 560 | 0 | 56.7 |
| Crystal 737 | 806 | 312.4 | 97 | 10862 | 96 | 1.41 | 46.19 | 94 | 1598 | 92 | 17.03 | 34.95 | 340 | 1316 | 617 | 0 | 60.1 |
| Crystal R761 | 819 | 320.4 | 100 | 11495 | 101 | 1.36 | 48.61 | 99 | 1746 | 101 | 17.38 | 35.82 | 253 | 1496 | 567 | 0 | 64.6 |
| Hilleshög 3035Rz | 805 | 323.1 | 100 | 10186 | 90 | 1.40 | 49.43 | 101 | 1562 | 90 | 17.56 | 31.49 | 229 | 1354 | 640 | 95 | 77.9 |
| Hilleshög 9891Rz | 812 | 327.1 | 102 | 10120 | 89 | 1.32 | 50.65 | 103 | 1566 | 91 | 17.68 | 31.01 | 181 | 1346 | 599 | 0 | 74.6 |
| Maribo MA615Rz | 818 | 316.0 | 98 | 11507 | 101 | 1.31 | 47.28 | 96 | 1718 | 99 | 17.11 | 36.44 | 319 | 1365 | 533 | 0 | 79.6 |
| Maribo MA720Rz | 816 | 322.0 | 100 | 10803 | 95 | 1.20 | 49.09 | 100 | 1649 | 95 | 17.30 | 33.51 | 246 | 1178 | 527 | 0 | 87.8 |
| Seedex 8869 | 809 | 333.3 | 104 | 12467 | 110 | 1.11 | 52.51 | 107 | 1960 | 113 | 17.76 | 37.45 | 189 | 1306 | 440 | 0 | 74.4 |
| Seedex Deuce | 802 | 332.9 | 103 | 12261 | 108 | 1.12 | 52.39 | 107 | 1933 | 112 | 17.77 | 36.78 | 180 | 1402 | 431 | 0 | 74.9 |
| Strube 12720 | 813 | 313.7 | 97 | 12729 | 112 | 1.20 | 46.59 | 95 | 1889 | 109 | 16.89 | 40.56 | 287 | 1461 | 440 | 0 | 75.1 |
| Strube 13722 | 804 | 312.8 | 97 | 12459 | 110 | 1.25 | 46.30 | 94 | 1842 | 107 | 16.88 | 39.84 | 261 | 1521 | 467 | 0 | 80.7 |
| SV 48611 | 815 | 333.9 | 104 | 10676 | 94 | 1.24 | 52.69 | 107 | 1691 | 98 | 17.93 | 31.84 | 197 | 1315 | 537 | 0 | 67.8 |
| SV 48777 | 803 | 335.6 | 104 | 11728 | 103 | 1.07 | 53.22 | 108 | 1860 | 108 | 17.85 | 34.92 | 180 | 1376 | 396 | 0 | 75.8 |
| Crystal 355RR(Check) | 820 | 313.4 | 97 | 12059 | 106 | 1.44 | 46.50 | 95 | 1790 | 104 | 17.12 | 38.51 | 254 | 1406 | 651 | 0 | 72.6 |
| BTS 80RR52(Check) | 821 | 309.3 | 96 | 11950 | 105 | 1.49 | 45.26 | 92 | 1747 | 101 | 16.96 | 38.61 | 258 | 1364 | 695 | 0 | 74.2 |
| Crystal 101RR (Check) | 822 | 319.7 | 99 | 12145 | 107 | 1.41 | 48.40 | 99 | 1835 | 106 | 17.38 | 37.98 | 312 | 1497 | 581 | 0 | 73.4 |
| Hilleshög 4302RR (Check) | 823 | 320.6 | 100 | 10795 | 95 | 1.29 | 48.69 | 99 | 1636 | 95 | 17.32 | 33.69 | 274 | 1400 | 530 | 0 | 66.9 |
| Maribo Ultramono(Filler) | 824 | 322.1 | 100 | 8682 | 76 | 1.37 | 49.13 | 100 | 1327 | 77 | 17.48 | 26.95 | 321 | 1498 | 549 | 0 | 50.7 |
| Benchmark Mean | | 315.8 | | 11737 | | 1.41 | 47.21 | | 1752 | | 17.20 | 37.20 | 274 | 1417 | 614 | | 71.8 |
| Trial Mean | | 322.0 | | 11357 | | 1.30 | 49.09 | | 1729 | | 17.39 | 35.32 | 245 | 1374 | 548 | | 69.2 |
| Coeff. of Var. (%) | | 2.8 | | 5.7 | | 8.9 | 5.5 | | 6.5 | | 2.3 | 6.3 | 18.6 | 6.7 | 13.9 | | 15.7 |
| Mean LSD (0.05) | | 13.2 | | 966 | | 0.17 | 3.99 | | 169 | | 0.60 | 3.24 | 65 | 138 | 115 | | 16.2 |
| Mean LSD (0.01) | | 17.5 | | 1284 | | 0.23 | 5.31 | | 225 | | 0.79 | 4.30 | 86 | 183 | 152 | | 21.6 |
| Sig Lvl | | ** | | ** | | ** | ** | | ** | | ** | ** | ** | ** | ** | | ** |

*Actual data output without adjustment factor.

%Mean = percentage of trial mean.

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$48.49 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Created 11/01/2017

Trial # = 178204

Table 22. 2017 Performance of Conventional Varieties - ACSC Official Trials
Grand Forks ND - All Characters

| *Unadjusted Variety @ | Rec/T Code | Rec/T lbs. | Rec/T %Mean | Rec/A lbs. | Rec/A %Mean | Loss Mol % | Rev/T \$ ++ | Rev/T %Mean | Rev/A \$ ++ | Rev/A %Mean | Sugar % | Yield T/A | Na ppm | K ppm | AmN ppm | Bolter /Ac | Emerg. % |
|--------------------------|---------------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|------------|--------------|-----------|----------|------------|---------------|-------------|
| BETA EXP 687 | 807 | 375.4 | 105 | 12865 | 101 | 0.89 | 65.28 | 109 | 2238 | 105 | 19.67 | 34.48 | 115 | 1607 | 218 | 0 | 71.0 |
| BETA EXP 698 | 808 | 359.9 | 101 | 13661 | 107 | 0.86 | 60.59 | 101 | 2295 | 107 | 18.84 | 37.78 | 137 | 1657 | 175 | 0 | 75.9 |
| BETA EXP 747 | 810 | 355.6 | 99 | 13165 | 103 | 0.76 | 59.27 | 99 | 2210 | 103 | 18.54 | 36.72 | 136 | 1369 | 179 | 0 | 78.5 |
| BETA EXP 758 | 817 | 358.3 | 100 | 13535 | 106 | 0.83 | 60.08 | 100 | 2277 | 107 | 18.76 | 37.94 | 136 | 1541 | 185 | 0 | 75.7 |
| Crystal 620 | 811 | 365.2 | 102 | 13266 | 104 | 0.78 | 62.17 | 104 | 2255 | 105 | 19.04 | 36.52 | 121 | 1467 | 170 | 0 | 73.9 |
| Crystal 622 | 801 | 367.2 | 103 | 12194 | 95 | 0.88 | 62.77 | 105 | 2089 | 98 | 19.24 | 33.08 | 122 | 1530 | 234 | 0 | 69.2 |
| Crystal 735 | 814 | 372.0 | 104 | 12857 | 100 | 0.77 | 64.22 | 107 | 2208 | 103 | 19.37 | 34.58 | 117 | 1419 | 182 | 0 | 68.8 |
| Crystal 737 | 806 | 358.3 | 100 | 12181 | 95 | 0.92 | 60.10 | 100 | 2045 | 96 | 18.83 | 33.84 | 148 | 1641 | 226 | 0 | 70.1 |
| Crystal R761 | 819 | 346.4 | 97 | 14029 | 110 | 0.90 | 56.50 | 94 | 2281 | 107 | 18.22 | 40.60 | 163 | 1667 | 194 | 0 | 78.4 |
| Hilleshög 3035Rz | 805 | 359.7 | 101 | 11074 | 87 | 0.82 | 60.52 | 101 | 1853 | 87 | 18.81 | 31.07 | 122 | 1544 | 180 | 0 | 85.9 |
| Hilleshög 9891Rz | 812 | 361.6 | 101 | 11123 | 87 | 0.84 | 61.08 | 102 | 1872 | 88 | 18.92 | 30.69 | 132 | 1544 | 197 | 0 | 80.9 |
| Maribo MA615Rz | 818 | 348.7 | 98 | 13330 | 104 | 0.92 | 57.20 | 96 | 2196 | 103 | 18.36 | 38.13 | 189 | 1615 | 216 | 0 | 78.2 |
| Maribo MA720Rz | 816 | 354.9 | 99 | 12595 | 98 | 0.86 | 59.07 | 99 | 2101 | 98 | 18.60 | 35.23 | 142 | 1569 | 199 | 0 | 87.9 |
| Seedex 8869 | 809 | 351.7 | 98 | 14304 | 112 | 0.80 | 58.10 | 97 | 2342 | 110 | 18.39 | 41.12 | 124 | 1511 | 170 | 0 | 74.0 |
| Seedex Deuce | 802 | 362.4 | 101 | 14788 | 116 | 0.80 | 61.33 | 102 | 2464 | 115 | 18.92 | 41.50 | 130 | 1530 | 163 | 0 | 79.5 |
| Strube 12720 | 813 | 344.6 | 96 | 13718 | 107 | 0.86 | 55.95 | 93 | 2227 | 104 | 18.09 | 39.91 | 167 | 1631 | 168 | 0 | 72.6 |
| Strube 13722 | 804 | 347.6 | 97 | 12814 | 100 | 0.87 | 56.86 | 95 | 2084 | 97 | 18.25 | 37.09 | 134 | 1706 | 172 | 0 | 77.4 |
| SV 48611 | 815 | 360.2 | 101 | 13690 | 107 | 0.77 | 60.65 | 101 | 2312 | 108 | 18.79 | 38.09 | 114 | 1414 | 182 | 0 | 69.0 |
| SV 48777 | 803 | 363.6 | 102 | 13258 | 104 | 0.81 | 61.68 | 103 | 2251 | 105 | 18.99 | 36.47 | 139 | 1434 | 196 | 0 | 70.8 |
| Crystal 355RR(Check) | 820 | 358.8 | 100 | 12341 | 96 | 0.90 | 60.24 | 101 | 2072 | 97 | 18.83 | 34.17 | 126 | 1599 | 229 | 0 | 77.4 |
| BTS 80RR52(Check) | 821 | 354.3 | 99 | 12491 | 98 | 0.89 | 58.88 | 98 | 2096 | 98 | 18.61 | 34.90 | 143 | 1547 | 232 | 0 | 71.0 |
| Crystal 101RR (Check) | 822 | 342.2 | 96 | 12925 | 101 | 0.93 | 55.21 | 92 | 2067 | 97 | 18.03 | 38.03 | 197 | 1628 | 214 | 0 | 70.6 |
| Hilleshög 4302RR (Check) | 823 | 353.4 | 99 | 11559 | 90 | 0.83 | 58.61 | 98 | 1924 | 90 | 18.50 | 32.69 | 163 | 1522 | 179 | 0 | 67.6 |
| Maribo Ultramono(Filler) | 824 | 359.5 | 101 | 9283 | 73 | 0.96 | 60.44 | 101 | 1567 | 73 | 18.94 | 25.82 | 169 | 1745 | 223 | 0 | 67.1 |
| Benchmark Mean | | 352.2 | | 12329 | | 0.89 | 58.24 | | 2040 | | 18.49 | 34.95 | 157 | 1574 | 214 | | 71.7 |
| Trial Mean | | 357.6 | | 12794 | | 0.85 | 59.87 | | 2138 | | 18.73 | 35.85 | 141 | 1560 | 195 | | 74.6 |
| Coeff. of Var. (%) | | 2.3 | | 6.3 | | 5.5 | 4.1 | | 7.0 | | 2.1 | 5.9 | 15.5 | 4.6 | 11.1 | | 8.9 |
| Mean LSD (0.05) | | 12.8 | | 1230 | | 0.07 | 3.87 | | 222 | | 0.60 | 3.36 | 33 | 111 | 34 | | 9.6 |
| Mean LSD (0.01) | | 17.0 | | 1636 | | 0.10 | 5.15 | | 294 | | 0.80 | 4.48 | 44 | 148 | 45 | | 12.8 |
| Sig Lvl | | ** | | ** | | ** | ** | | ** | | ** | ** | ** | ** | ** | | ** |

*Actual data output without adjustment factor.

%Mean = percentage of trial mean.

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$48.49 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Created 11/01/2017

Trial # = 178207

Table 23. 2017 Performance of Conventional Varieties - ACSC Official Trials
Scandia MN - All Characters

| *Unadjusted Variety @ | Rec/T Code | Rec/T lbs. | Rec/T %Mean | Rec/A lbs. | Rec/A %Mean | Loss Mol % | Rev/T \$ ++ | Rev/T %Mean | Rev/A \$ ++ | Rev/A %Mean | Sugar % | Yield T/A | Na ppm | K ppm | AmN ppm | Bolter /Ac | Emerg. % |
|--------------------------|---------------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|------------|--------------|-----------|----------|------------|---------------|-------------|
| BETA EXP 687 | 807 | 350.8 | 104 | 9906 | 103 | 1.34 | 57.81 | 107 | 1634 | 107 | 18.88 | 28.21 | 197 | 1727 | 504 | 0 | 64.2 |
| BETA EXP 698 | 808 | 321.0 | 95 | 9924 | 103 | 1.28 | 48.81 | 90 | 1530 | 100 | 17.35 | 30.71 | 245 | 1692 | 447 | 0 | 70.3 |
| BETA EXP 747 | 810 | 328.1 | 97 | 10398 | 108 | 1.29 | 50.94 | 94 | 1609 | 105 | 17.69 | 31.56 | 272 | 1510 | 501 | 0 | 70.0 |
| BETA EXP 758 | 817 | 345.3 | 102 | 9869 | 103 | 1.23 | 56.17 | 104 | 1599 | 104 | 18.50 | 28.81 | 224 | 1677 | 429 | 0 | 74.1 |
| Crystal 620 | 811 | 332.0 | 98 | 10323 | 108 | 1.23 | 52.14 | 96 | 1616 | 105 | 17.83 | 31.09 | 209 | 1625 | 444 | 0 | 63.6 |
| Crystal 622 | 801 | 345.1 | 102 | 9124 | 95 | 1.35 | 56.10 | 104 | 1490 | 97 | 18.62 | 26.38 | 219 | 1693 | 514 | 0 | 59.9 |
| Crystal 735 | 814 | 357.1 | 105 | 9498 | 99 | 1.20 | 59.71 | 110 | 1596 | 104 | 19.06 | 26.52 | 177 | 1579 | 450 | 0 | 61.8 |
| Crystal 737 | 806 | 347.4 | 103 | 9868 | 103 | 1.38 | 56.78 | 105 | 1593 | 104 | 18.73 | 28.66 | 244 | 1704 | 523 | 0 | 55.2 |
| Crystal R761 | 819 | 326.7 | 96 | 9976 | 104 | 1.54 | 50.51 | 93 | 1538 | 100 | 17.87 | 30.60 | 307 | 1894 | 571 | 0 | 62.1 |
| Hilleshög 3035Rz | 805 | 340.1 | 100 | 8351 | 87 | 1.52 | 54.59 | 101 | 1339 | 87 | 18.53 | 24.67 | 294 | 1710 | 620 | 0 | 70.8 |
| Hilleshög 9891Rz | 812 | 344.7 | 102 | 9163 | 95 | 1.48 | 55.96 | 103 | 1484 | 97 | 18.71 | 26.62 | 226 | 1726 | 606 | 0 | 60.8 |
| Maribo MA615Rz | 818 | 326.5 | 96 | 9398 | 98 | 1.47 | 50.47 | 93 | 1453 | 95 | 17.80 | 28.74 | 327 | 1718 | 562 | 0 | 68.2 |
| Maribo MA720Rz | 816 | 350.4 | 103 | 9400 | 98 | 1.31 | 57.71 | 107 | 1531 | 100 | 18.81 | 26.99 | 225 | 1575 | 518 | 0 | 70.5 |
| Seedex 8869 | 809 | 341.6 | 101 | 9668 | 101 | 1.20 | 55.02 | 102 | 1550 | 101 | 18.27 | 28.34 | 240 | 1707 | 388 | 0 | 55.5 |
| Seedex Deuce | 802 | 337.5 | 100 | 10238 | 107 | 1.26 | 53.79 | 99 | 1617 | 106 | 18.12 | 30.63 | 276 | 1703 | 422 | 95 | 51.3 |
| Strube 12720 | 813 | 330.5 | 98 | 10852 | 113 | 1.24 | 51.67 | 95 | 1675 | 109 | 17.75 | 33.16 | 287 | 1702 | 408 | 0 | 66.4 |
| Strube 13722 | 804 | 319.2 | 94 | 10529 | 110 | 1.21 | 48.24 | 89 | 1611 | 105 | 17.19 | 32.82 | 250 | 1780 | 376 | 0 | 74.9 |
| SV 48611 | 815 | 351.2 | 104 | 10650 | 111 | 1.30 | 57.93 | 107 | 1774 | 116 | 18.88 | 30.19 | 205 | 1698 | 473 | 0 | 54.3 |
| SV 48777 | 803 | 345.3 | 102 | 9278 | 97 | 1.12 | 56.14 | 104 | 1509 | 98 | 18.39 | 26.87 | 209 | 1628 | 356 | 0 | 61.9 |
| Crystal 355RR(Check) | 820 | 343.6 | 101 | 9538 | 99 | 1.35 | 55.64 | 103 | 1551 | 101 | 18.55 | 27.77 | 233 | 1716 | 506 | 0 | 66.4 |
| BTS 80RR52(Check) | 821 | 341.0 | 101 | 9948 | 104 | 1.31 | 54.86 | 101 | 1598 | 104 | 18.37 | 29.29 | 210 | 1707 | 490 | 0 | 74.7 |
| Crystal 101RR (Check) | 822 | 338.9 | 100 | 10585 | 110 | 1.52 | 54.22 | 100 | 1683 | 110 | 18.46 | 31.36 | 325 | 1895 | 558 | 0 | 65.9 |
| Hilleshög 4302RR (Check) | 823 | 346.5 | 102 | 7772 | 81 | 1.25 | 56.51 | 104 | 1258 | 82 | 18.57 | 22.50 | 286 | 1637 | 432 | 95 | 37.0 |
| Maribo Ultramono(Filler) | 824 | 319.6 | 94 | 6112 | 64 | 1.33 | 48.37 | 89 | 915 | 60 | 17.30 | 19.24 | 433 | 1716 | 419 | 0 | 58.2 |
| Benchmark Mean | | 342.5 | | 9461 | | 1.36 | 55.31 | | 1523 | | 18.49 | 27.73 | 263 | 1739 | 496 | | 61.0 |
| Trial Mean | | 338.8 | | 9599 | | 1.32 | 54.17 | | 1532 | | 18.26 | 28.41 | 255 | 1697 | 480 | | 63.3 |
| Coeff. of Var. (%) | | 2.7 | | 7.3 | | 7.5 | 5.0 | | 7.9 | | 2.3 | 7.6 | 19.1 | 4.2 | 12.3 | | 12.2 |
| Mean LSD (0.05) | | 13.9 | | 1011 | | 0.15 | 4.21 | | 171 | | 0.65 | 3.20 | 69 | 108 | 90 | | 11.3 |
| Mean LSD (0.01) | | 18.5 | | 1343 | | 0.20 | 5.60 | | 228 | | 0.86 | 4.25 | 91 | 144 | 120 | | 15.0 |
| Sig Lvl | | ** | | ** | | ** | ** | | ** | | ** | ** | ** | ** | ** | | ** |

*Actual data output without adjustment factor.

%Mean = percentage of trial mean.

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$48.49 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Created 10/31/2017

Trial # = 178208

Table 24. 2017 Performance of Conventional Varieties - ACSC Official Trials
St Thomas ND - All Characters

| *Unadjusted Variety @ | Code | Rec/T lbs. | Rec/T %Mean | Rec/A lbs. | Rec/A %Mean | Loss Mol % | Rev/T \$ ++ | Rev/T %Mean | Rev/A \$ ++ | Rev/A %Mean | Sugar % | Yield T/A | Na ppm | K ppm | AmN ppm | Bolter /Ac | Emerg. % |
|--------------------------|------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|------------|--------------|-----------|----------|------------|---------------|-------------|
| BETA EXP 687 | 807 | 291.4 | 101 | 9706 | 98 | 1.24 | 39.84 | 102 | 1324 | 99 | 15.80 | 33.51 | 268 | 1582 | 456 | 0 | 71.2 |
| BETA EXP 698 | 808 | 294.5 | 102 | 11083 | 112 | 1.15 | 40.78 | 104 | 1536 | 115 | 15.87 | 37.67 | 346 | 1572 | 353 | 0 | 69.6 |
| BETA EXP 747 | 810 | 284.0 | 98 | 10363 | 105 | 1.26 | 37.60 | 96 | 1382 | 103 | 15.48 | 36.27 | 454 | 1439 | 433 | 0 | 72.9 |
| BETA EXP 758 | 817 | 293.3 | 101 | 10091 | 102 | 1.13 | 40.39 | 103 | 1383 | 103 | 15.78 | 34.60 | 374 | 1573 | 320 | 0 | 76.8 |
| Crystal 620 | 811 | 286.7 | 99 | 10876 | 110 | 1.25 | 38.40 | 98 | 1451 | 108 | 15.58 | 38.08 | 327 | 1541 | 440 | 0 | 64.1 |
| Crystal 622 | 801 | 280.7 | 97 | 9685 | 98 | 1.37 | 36.58 | 93 | 1256 | 94 | 15.39 | 34.69 | 390 | 1617 | 485 | 0 | 56.8 |
| Crystal 735 | 814 | 307.9 | 106 | 10330 | 104 | 1.12 | 44.83 | 114 | 1506 | 112 | 16.54 | 33.38 | 251 | 1430 | 400 | 0 | 64.2 |
| Crystal 737 | 806 | 287.5 | 99 | 9781 | 99 | 1.37 | 38.65 | 98 | 1310 | 98 | 15.73 | 34.17 | 387 | 1557 | 504 | 0 | 64.1 |
| Crystal R761 | 819 | 284.2 | 98 | 10483 | 106 | 1.31 | 37.64 | 96 | 1390 | 104 | 15.53 | 36.80 | 408 | 1709 | 408 | 0 | 73.2 |
| Hilleshög 3035Rz | 805 | 295.3 | 102 | 10075 | 102 | 1.08 | 41.02 | 105 | 1402 | 105 | 15.84 | 34.21 | 296 | 1455 | 346 | 0 | 77.1 |
| Hilleshög 9891Rz | 812 | 295.8 | 102 | 9414 | 95 | 1.18 | 41.16 | 105 | 1307 | 97 | 15.97 | 31.78 | 299 | 1489 | 407 | 0 | 74.9 |
| Maribo MA615Rz | 818 | 288.6 | 100 | 9614 | 97 | 1.29 | 38.97 | 99 | 1287 | 96 | 15.72 | 33.54 | 403 | 1545 | 443 | 0 | 75.0 |
| Maribo MA720Rz | 816 | 297.0 | 103 | 10242 | 103 | 1.09 | 41.54 | 106 | 1433 | 107 | 15.92 | 34.62 | 316 | 1437 | 344 | 0 | 76.4 |
| Seedex 8869 | 809 | 287.7 | 99 | 10208 | 103 | 1.15 | 38.71 | 99 | 1378 | 103 | 15.54 | 35.32 | 363 | 1575 | 335 | 0 | 72.9 |
| Seedex Deuce | 802 | 282.5 | 98 | 10236 | 103 | 1.05 | 37.14 | 95 | 1350 | 101 | 15.17 | 36.22 | 386 | 1511 | 275 | 0 | 71.9 |
| Strube 12720 | 813 | 287.2 | 99 | 10825 | 109 | 0.99 | 38.57 | 98 | 1458 | 109 | 15.36 | 37.70 | 343 | 1449 | 265 | 0 | 68.4 |
| Strube 13722 | 804 | 274.4 | 95 | 9594 | 97 | 1.17 | 34.67 | 88 | 1211 | 90 | 14.90 | 34.93 | 445 | 1609 | 315 | 0 | 76.6 |
| SV 48611 | 815 | 290.4 | 100 | 8803 | 89 | 1.18 | 39.54 | 101 | 1187 | 89 | 15.72 | 30.34 | 357 | 1431 | 397 | 0 | 64.9 |
| SV 48777 | 803 | 314.0 | 109 | 10381 | 105 | 0.99 | 46.66 | 119 | 1540 | 115 | 16.68 | 33.06 | 249 | 1496 | 273 | 0 | 62.6 |
| Crystal 355RR(Check) | 820 | 288.5 | 100 | 9487 | 96 | 1.28 | 38.96 | 99 | 1284 | 96 | 15.70 | 32.88 | 294 | 1585 | 460 | 0 | 69.5 |
| BTS 80RR52(Check) | 821 | 289.5 | 100 | 9958 | 101 | 1.20 | 39.26 | 100 | 1343 | 100 | 15.67 | 34.53 | 297 | 1574 | 400 | 0 | 76.0 |
| Crystal 101RR (Check) | 822 | 289.0 | 100 | 10419 | 105 | 1.17 | 39.11 | 100 | 1411 | 105 | 15.63 | 35.90 | 365 | 1634 | 335 | 0 | 63.9 |
| Hilleshög 4302RR (Check) | 823 | 280.6 | 97 | 8270 | 84 | 1.11 | 36.57 | 93 | 1077 | 80 | 15.14 | 29.54 | 408 | 1518 | 304 | 0 | 57.3 |
| Maribo Ultramono(Filler) | 824 | 275.9 | 95 | 7752 | 78 | 1.34 | 35.14 | 90 | 989 | 74 | 15.15 | 27.96 | 450 | 1618 | 433 | 0 | 59.0 |
| Benchmark Mean | | 286.9 | | 9534 | | 1.19 | 38.48 | | 1279 | | 15.54 | 33.21 | 341 | 1578 | 375 | | 66.7 |
| Trial Mean | | 289.4 | | 9903 | | 1.19 | 39.24 | | 1341 | | 15.66 | 34.24 | 353 | 1539 | 380 | | 69.1 |
| Coeff. of Var. (%) | | 2.5 | | 5.6 | | 6.6 | 5.6 | | 6.8 | | 2.1 | 5.7 | 16.2 | 6.3 | 11.6 | | 8.7 |
| Mean LSD (0.05) | | 11.5 | | 845 | | 0.12 | 3.47 | | 142 | | 0.50 | 2.98 | 92 | 146 | 71 | | 8.8 |
| Mean LSD (0.01) | | 15.3 | | 1123 | | 0.17 | 4.62 | | 189 | | 0.66 | 3.97 | 122 | 194 | 94 | | 11.7 |
| Sig Lvl | | ** | | ** | | ** | ** | | ** | | ** | ** | ** | ** | ** | | ** |

*Actual data output without adjustment factor.

%Mean = percentage of trial mean.

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$48.49 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Created 10/31/2017

Trial # = 178211

Table 25. 2017 Performance of Conventional Varieties - ACSC Official Trials
Humboldt MN - All Characters

| *Unadjusted Variety @ | Rec/T Code | Rec/T lbs. | Rec/T %Mean | Rec/A lbs. | Rec/A %Mean | Loss Mol % | Rev/T \$ ++ | Rev/T %Mean | Rev/A \$ ++ | Rev/A %Mean | Sugar % | Yield T/A | Na ppm | K ppm | AmN ppm | Bolter /Ac | Emerg. % |
|--------------------------|---------------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|------------|--------------|-----------|----------|------------|---------------|-------------|
| BETA EXP 687 | 807 | 377.8 | 102 | 7746 | 84 | 0.95 | 66.00 | 103 | 1367 | 86 | 19.84 | 20.22 | 100 | 1730 | 248 | 0 | 92.3 |
| BETA EXP 698 | 808 | 370.9 | 100 | 7566 | 82 | 0.93 | 63.91 | 99 | 1298 | 82 | 19.48 | 20.54 | 97 | 1644 | 251 | 0 | 93.6 |
| BETA EXP 747 | 810 | 372.2 | 100 | 9844 | 107 | 0.96 | 64.29 | 100 | 1710 | 108 | 19.56 | 26.22 | 104 | 1559 | 300 | 0 | 94.6 |
| BETA EXP 758 | 817 | 362.1 | 97 | 8780 | 96 | 0.87 | 61.23 | 95 | 1483 | 94 | 18.98 | 24.32 | 112 | 1646 | 202 | 0 | 92.9 |
| Crystal 620 | 811 | 374.6 | 101 | 10322 | 112 | 0.93 | 65.02 | 101 | 1792 | 113 | 19.66 | 27.54 | 99 | 1615 | 256 | 0 | 95.0 |
| Crystal 622 | 801 | 374.9 | 101 | 7968 | 87 | 1.02 | 65.12 | 101 | 1379 | 87 | 19.77 | 21.31 | 109 | 1795 | 272 | 0 | 84.3 |
| Crystal 735 | 814 | 376.6 | 101 | 8681 | 94 | 0.91 | 65.64 | 102 | 1515 | 96 | 19.74 | 22.99 | 101 | 1537 | 266 | 0 | 87.5 |
| Crystal 737 | 806 | 368.1 | 99 | 8327 | 91 | 1.04 | 63.07 | 98 | 1418 | 89 | 19.45 | 22.79 | 117 | 1722 | 297 | 0 | 94.9 |
| Crystal R761 | 819 | 368.1 | 99 | 11299 | 123 | 1.05 | 63.06 | 98 | 1932 | 122 | 19.46 | 30.78 | 115 | 1877 | 276 | 0 | 91.9 |
| Hilleshög 3035Rz | 805 | 371.0 | 100 | 7994 | 87 | 0.94 | 63.93 | 99 | 1378 | 87 | 19.48 | 21.55 | 102 | 1618 | 262 | 0 | 94.7 |
| Hilleshög 9891Rz | 812 | 375.1 | 101 | 8117 | 88 | 0.96 | 65.18 | 101 | 1398 | 88 | 19.72 | 21.89 | 100 | 1662 | 261 | 0 | 95.9 |
| Maribo MA615Rz | 818 | 376.6 | 101 | 9464 | 103 | 1.00 | 65.63 | 102 | 1654 | 104 | 19.83 | 25.09 | 114 | 1819 | 253 | 0 | 94.8 |
| Maribo MA720Rz | 816 | 376.2 | 101 | 8543 | 93 | 0.99 | 65.51 | 102 | 1482 | 94 | 19.80 | 22.80 | 134 | 1565 | 295 | 0 | 97.7 |
| Seedex 8869 | 809 | 372.6 | 100 | 9572 | 104 | 0.89 | 64.42 | 100 | 1655 | 104 | 19.52 | 25.71 | 97 | 1742 | 197 | 0 | 93.4 |
| Seedex Deuce | 802 | 371.1 | 100 | 11330 | 123 | 0.99 | 63.96 | 99 | 1949 | 123 | 19.55 | 30.64 | 110 | 1803 | 253 | 0 | 94.1 |
| Strube 12720 | 813 | 366.1 | 98 | 10569 | 115 | 0.91 | 62.44 | 97 | 1801 | 114 | 19.21 | 28.92 | 104 | 1735 | 209 | 0 | 95.2 |
| Strube 13722 | 804 | 363.2 | 98 | 10150 | 110 | 1.00 | 61.58 | 96 | 1725 | 109 | 19.16 | 27.90 | 108 | 1850 | 247 | 0 | 94.5 |
| SV 48611 | 815 | 372.9 | 100 | 9615 | 105 | 0.95 | 64.52 | 100 | 1662 | 105 | 19.60 | 25.88 | 103 | 1717 | 242 | 0 | 85.5 |
| SV 48777 | 803 | 385.7 | 104 | 9470 | 103 | 0.93 | 68.40 | 106 | 1675 | 106 | 20.22 | 24.59 | 103 | 1733 | 222 | 0 | 94.3 |
| Crystal 355RR(Check) | 820 | 375.4 | 101 | 9052 | 99 | 1.09 | 65.26 | 101 | 1565 | 99 | 19.86 | 24.24 | 101 | 1675 | 357 | 0 | 95.4 |
| BTS 80RR52(Check) | 821 | 367.9 | 99 | 8703 | 95 | 1.04 | 62.98 | 98 | 1491 | 94 | 19.44 | 23.68 | 110 | 1730 | 308 | 0 | 97.1 |
| Crystal 101RR (Check) | 822 | 372.1 | 100 | 11134 | 121 | 1.03 | 64.27 | 100 | 1917 | 121 | 19.63 | 30.01 | 107 | 1701 | 303 | 0 | 93.3 |
| Hilleshög 4302RR (Check) | 823 | 377.0 | 101 | 9890 | 108 | 0.88 | 65.75 | 102 | 1715 | 108 | 19.73 | 26.37 | 104 | 1643 | 214 | 0 | 84.4 |
| Maribo Ultramono(Filler) | 824 | 365.3 | 98 | 6395 | 70 | 1.09 | 62.22 | 97 | 1082 | 68 | 19.36 | 17.65 | 117 | 1900 | 297 | 0 | 77.9 |
| Benchmark Mean | | 373.1 | | 9695 | | 1.01 | 64.57 | | 1672 | | 19.67 | 26.08 | 106 | 1687 | 296 | | 92.5 |
| Trial Mean | | 372.2 | | 9189 | | 0.97 | 64.31 | | 1585 | | 19.58 | 24.74 | 107 | 1709 | 262 | | 92.3 |
| Coeff. of Var. (%) | | 1.8 | | 6.6 | | 7.0 | 3.1 | | 7.3 | | 1.6 | 6.0 | 12.0 | 4.7 | 18.4 | | 3.3 |
| Mean LSD (0.05) | | 11.3 | | 1143 | | 0.12 | 3.43 | | 217 | | 0.53 | 2.84 | 22 | 132 | 79 | | 5.4 |
| Mean LSD (0.01) | | 15.2 | | 1534 | | 0.16 | 4.59 | | 291 | | 0.70 | 3.81 | 29 | 176 | 106 | | 7.2 |
| Sig Lvl | | ** | | ** | | ** | ** | | ** | | ** | ** | ** | ** | ** | | ** |

*Actual data output without adjustment factor.

%Mean = percentage of trial mean.

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$48.49 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Created 11/01/2017

Trial # = 178212

Table 26. Calculation for Approval of Sugarbeet Varieties for ACSC Market for 2018

| Variety | Approval Status | Rec/Ton | | | | Rev/Acre | | | | R/T + \$/A Bench | Cercospora Rating + | | | | |
|---------------------------------------|-----------------|---------|-------|-------|---------|----------|------|------|---------|------------------|---------------------|------|------|------------------|-----------|
| | | 2016 | 2017 | 2 Yr | % Bench | 2016 | 2017 | 2 Yr | % Bench | | 2015 | 2016 | 2017 | 2 Yr Mean | 3 Yr Mean |
| Previously Approved (3 Yr) | | | | | | | | | | | | | | <=5.40 | |
| BTS 80RR52 | Approved | 316.8 | 334.2 | 325.5 | 100.6 | 1960 | 1699 | 1830 | 103.2 | 203.8 | 4.11 | 4.28 | 4.37 | 4.26 | |
| BTS 8337 | Approved | 325.2 | 349.5 | 337.4 | 104.3 | 1877 | 1842 | 1860 | 104.9 | 209.2 | 4.49 | 4.62 | 4.36 | 4.49 | |
| BTS 8363 | Approved | 309.8 | 328.7 | 319.3 | 98.7 | 1937 | 1770 | 1854 | 104.6 | 203.2 | 3.83 | 4.33 | 4.10 | 4.09 | |
| BTS 8500 | Approved | 308.7 | 335.7 | 322.2 | 99.6 | 1966 | 1862 | 1914 | 108.0 | 207.6 | 4.45 | 4.54 | 4.29 | 4.43 | |
| BTS 8512 | Approved | 315.8 | 339.9 | 327.9 | 101.3 | 1917 | 1749 | 1833 | 103.4 | 204.8 | 4.12 | 4.04 | 3.69 | 3.95 | |
| BTS 8524 | Approved | 305.7 | 330.0 | 317.9 | 98.2 | 1954 | 1796 | 1875 | 105.8 | 204.0 | 4.40 | 4.74 | 4.38 | 4.51 | |
| BTS 8572 | Approved | 323.3 | 346.7 | 335.0 | 103.5 | 1913 | 1817 | 1865 | 105.2 | 208.8 | 4.60 | 4.41 | 4.14 | 4.38 | |
| Crystal 093RR | Approved | 319.1 | 350.3 | 334.7 | 103.5 | 1942 | 1866 | 1904 | 107.4 | 210.9 | 4.76 | 4.95 | 4.49 | 4.73 | |
| Crystal 101RR | Approved | 306.3 | 329.3 | 317.8 | 98.2 | 1849 | 1718 | 1784 | 100.6 | 198.9 | 4.65 | 4.59 | 4.57 | 4.60 | |
| Crystal 246RR | Approved | 305.3 | 331.7 | 318.5 | 98.4 | 1845 | 1775 | 1810 | 102.1 | 200.6 | 4.49 | 4.81 | 4.63 | 4.64 | |
| Crystal 247RR | Approved | 314.5 | 335.2 | 324.9 | 100.4 | 2014 | 1832 | 1923 | 108.5 | 208.9 | 4.19 | 4.65 | 4.55 | 4.47 | |
| Crystal 355RR | Approved | 322.3 | 340.0 | 331.2 | 102.4 | 1947 | 1711 | 1829 | 103.2 | 205.5 | 4.43 | 4.60 | 4.36 | 4.46 | |
| Crystal 467RR | Approved | 301.0 | 330.1 | 315.6 | 97.5 | 1845 | 1804 | 1825 | 102.9 | 200.5 | 4.34 | 4.69 | 4.46 | 4.49 | |
| Crystal 572RR | Approved | 324.7 | 354.7 | 339.7 | 105.0 | 1982 | 1891 | 1937 | 109.3 | 214.3 | 4.65 | 4.57 | 4.27 | 4.50 | |
| Crystal 573RR | Approved | 321.4 | 343.9 | 332.7 | 102.8 | 1970 | 1785 | 1878 | 105.9 | 208.7 | 4.15 | 4.35 | 4.15 | 4.22 | |
| Crystal 574RR | Approved | 307.8 | 334.4 | 321.1 | 99.3 | 2070 | 1875 | 1973 | 111.3 | 210.5 | 4.30 | 4.51 | 4.35 | 4.39 | |
| Crystal 578RR | Approved | 316.6 | 338.4 | 327.5 | 101.2 | 2017 | 1899 | 1958 | 110.5 | 211.7 | 4.93 | 4.87 | 4.91 | 4.91 | |
| Crystal 986RR | Approved | 318.8 | 341.1 | 330.0 | 102.0 | 1895 | 1776 | 1836 | 103.6 | 205.5 | 4.97 | 4.75 | 4.77 | 4.83 | |
| Hilleshög HIL9708 | Approved | 312.4 | 338.6 | 325.5 | 100.6 | 1857 | 1640 | 1749 | 98.6 | 199.3 | 5.04 | 4.74 | 4.61 | 4.80 | |
| Hilleshög 4302RR | Approved | 317.4 | 334.0 | 325.7 | 100.7 | 1801 | 1597 | 1699 | 95.9 | 196.5 | 4.13 | 4.13 | 3.93 | 4.06 | |
| Hilleshög 4448RR | Approved | 309.1 | 338.0 | 323.6 | 100.0 | 1873 | 1829 | 1851 | 104.4 | 204.4 | 5.29 | 5.21 | 5.28 | 5.26 | |
| Hilleshög 9528RR | Approved | 319.1 | 339.3 | 329.2 | 101.8 | 1982 | 1785 | 1884 | 106.3 | 208.0 | 5.16 | 4.73 | 4.99 | 4.96 | |
| Maribo 109 | Approved | 332.4 | 347.6 | 340.0 | 105.1 | 1889 | 1569 | 1729 | 97.5 | 202.6 | 4.56 | 4.14 | 4.14 | 4.28 | |
| Maribo 305 | Approved | 307.5 | 331.7 | 319.6 | 98.8 | 1773 | 1731 | 1752 | 98.8 | 197.6 | 4.76 | 4.72 | 4.98 | 4.82 | |
| Maribo MA504 | Approved | 305.5 | 333.9 | 319.7 | 98.8 | 1929 | 1830 | 1880 | 106.0 | 204.9 | 5.25 | 5.04 | 5.50 | 5.26 | |
| SV RR244TT | Approved | 317.6 | 334.7 | 326.2 | 100.8 | 1877 | 1796 | 1837 | 103.6 | 204.4 | 4.17 | 4.46 | 4.85 | 4.49 | |
| SV RR333 | Approved | 318.3 | 338.9 | 328.6 | 101.6 | 1950 | 1823 | 1887 | 106.4 | 208.0 | 4.54 | 4.85 | 4.84 | 4.74 | |
| SV RR351 | Approved | 313.2 | 337.3 | 325.3 | 100.5 | 1971 | 1783 | 1877 | 105.9 | 206.4 | 4.62 | 4.50 | 4.41 | 4.51 | |
| SX Avalanche RR(858) | Approved | 320.7 | 342.2 | 331.5 | 102.4 | 1916 | 1690 | 1803 | 101.7 | 204.2 | 4.15 | 4.74 | 4.64 | 4.51 | |
| SX Canyon RR | Approved | 317.4 | 342.4 | 329.9 | 102.0 | 1926 | 1829 | 1878 | 105.9 | 207.9 | 4.02 | 4.76 | 4.92 | 4.56 | |
| SX Cruze RR | Approved | 299.6 | 318.4 | 309.0 | 95.5 | 1712 | 1696 | 1704 | 96.1 | 191.6 | 4.57 | 4.65 | 5.37 | 4.87 | |
| SX Marathon RR(856) | Approved | 315.4 | 340.4 | 327.9 | 101.4 | 2039 | 1812 | 1926 | 108.6 | 210.0 | 5.37 | 4.44 | 4.54 | 4.78 | |
| SX Winchester RR | Approved | 320.5 | 331.1 | 325.8 | 100.7 | 1831 | 1580 | 1706 | 96.2 | 196.9 | 3.67 | 3.97 | 4.07 | 3.90 | |
| Candidates for Approval (2 Yr) | | | | | | | | | | | | | | <=5.20 | |
| BTS 8606 | Approved | 317.3 | 340.5 | 328.9 | 101.7 | 2000 | 1882 | 1941 | 109.5 | 211.2 | -- | 5.12 | 4.73 | 4.92 | -- |
| BTS 8629 | Approved | 307.5 | 332.8 | 320.2 | 99.0 | 1955 | 1884 | 1920 | 108.3 | 207.3 | -- | 4.59 | 4.29 | 4.44 | -- |
| Crystal 684RR | Approved | 308.1 | 333.7 | 320.9 | 99.2 | 2111 | 1899 | 2005 | 113.1 | 212.3 | -- | 4.57 | 4.34 | 4.45 | -- |
| Hilleshög HIL9707 | Not Approved | 305.2 | 324.3 | 314.8 | 97.3 | 1739 | 1692 | 1716 | 96.8 | 194.1 | 4.60 | 4.53 | 4.96 | 4.74 | 4.70 |
| Hilleshög HIL9895 | Not Approved | 313.7 | 326.3 | 320.0 | 98.9 | 1873 | 1547 | 1710 | 96.5 | 195.4 | -- | 4.49 | 4.84 | 4.67 | -- |
| Maribo MA502 | Not Approved | 302.7 | 329.8 | 316.3 | 97.8 | 1825 | 1642 | 1734 | 97.8 | 195.6 | 5.04 | 4.79 | 5.01 | 4.90 | 4.95 |
| Maribo MA611 | Not Approved | 313.1 | 325.9 | 319.5 | 98.8 | 1765 | 1542 | 1654 | 93.3 | 192.0 | -- | 4.47 | 5.03 | 4.75 | -- |
| SX RR1861 | Approved | 316.2 | 335.3 | 325.8 | 100.7 | 1966 | 1748 | 1857 | 104.8 | 205.5 | -- | 4.52 | 4.74 | 4.63 | -- |
| SX RR1863 | Approved | 323.4 | 342.4 | 332.9 | 102.9 | 2006 | 1773 | 1890 | 106.6 | 209.5 | -- | 4.35 | 4.08 | 4.21 | -- |
| SV RR265 | Approved | 315.1 | 336.8 | 326.0 | 100.7 | 1979 | 1836 | 1908 | 107.6 | 208.4 | -- | 5.00 | 5.19 | 5.09 | -- |
| SV RR266 | Approved | 317.3 | 337.9 | 327.6 | 101.3 | 1971 | 1814 | 1893 | 106.8 | 208.0 | -- | 4.74 | 4.61 | 4.67 | -- |
| SV RR268 | Approved | 319.0 | 341.1 | 330.1 | 102.0 | 1954 | 1802 | 1878 | 106.0 | 208.0 | -- | 5.13 | 5.06 | 5.10 | -- |
| Benchmark Varieties | | | | | | | | | | | | | | | |
| Crystal 875RR | Benchmark | 2015 | 2016 | 2017 | | 2015 | 2016 | 2017 | | | | | | | |
| BTS 81RR17(Check) | Benchmark | 308.5 | | | | 1490 | | | | | | | | | |
| BTS 80RR52 | Benchmark | 307.6 | 310.2 | | | 1574 | 1845 | | | | | | | | |
| Hilleshög 4302RR | Benchmark | 317.7 | 316.8 | 334.2 | | 1701 | 1960 | 1699 | | | | | | | |
| Crystal 101RR | Benchmark | 319.5 | 317.4 | 334.0 | | 1624 | 1801 | 1597 | | | | | | | |
| Crystal 355RR | Benchmark | 306.3 | 329.3 | | | | 1849 | 1718 | | | | | | | |
| Benchmark mean | | 313.3 | 312.7 | 334.4 | 323.5 | 1597 | 1864 | 1681 | 1773 | | | | | | |

+ All Cercospora ratings 2015-2017 were adjusted to 1982 basis.
 Variety approval criteria include: 1) 2 years of official trial data, 2) Cercospora rating must not exceed 5.20 (1982 adjusted data), 3a) R/T >= 100% of Bench or 3b) R/T >= 97% and R/T + \$/A >= 202% of Bench. 3 yrs of data may be considered for initial approval.
 Bench for 2017 added Crystal 355RR and dropped BTS 81RR17(Check).
 To maintain approval, the 3-year Cercospora rating must not exceed 5.40 (1982 adjusted data).

Created 11-04-2017.

Table 27. Projected Calculation for Approval of Sugarbeet Varieties for ACSC Market

| Variety | Approval ^ Likely | Rec/Ton % | | Rev/Acre % | | R/T + \$/A | CR Rating ^^ |
|--|----------------------|--------------|-------|---------------|-------|---------------|--------------|
| | | 2017 | Bench | 2017 | Bench | Bench | 2017 |
| Candidates for Retesting (1 Yr) | | | | | | | |
| BTS 8735 | On Track | 335.7 | 100.4 | 1836 | 109.2 | 209.6 | 4.22 |
| BTS 8742 | Not On Track | 333.4 | 99.7 | 1646 | 97.9 | 197.6 | 4.36 |
| BTS 8749 | On Track | 337.7 | 101.0 | 1719 | 102.2 | 203.2 | 4.05 |
| BTS 8756 | On Track | 338.4 | 101.2 | 1724 | 102.5 | 203.7 | 4.01 |
| BTS 8767 | On Track | 339.2 | 101.4 | 1878 | 111.7 | 213.1 | 4.16 |
| BTS 8770 | On Track | 337.4 | 100.9 | 1801 | 107.1 | 208.0 | 4.30 |
| BTS 8784 | On Track | 351.4 | 105.1 | 1787 | 106.3 | 211.4 | 3.65 |
| BTS 8787 | On Track | 331.5 | 99.1 | 1733 | 103.1 | 202.2 | 4.03 |
| BTS 8798 | On Track | 338.8 | 101.3 | 1695 | 100.8 | 202.1 | 4.30 |
| Crystal 792RR | On Track | 344.0 | 102.9 | 1799 | 107.0 | 209.9 | 3.94 |
| Crystal 793RR | On Track | 347.5 | 103.9 | 1896 | 112.8 | 216.7 | 3.93 |
| Crystal 794RR | On Track | 333.8 | 99.8 | 1835 | 109.1 | 209.0 | 4.92 |
| Crystal 795RR | On Track | 340.1 | 101.7 | 1708 | 101.6 | 203.3 | 4.39 |
| Crystal 796RR | On Track | 337.0 | 100.8 | 1950 | 116.0 | 216.8 | 4.85 |
| Crystal 797RR | On Track | 330.1 | 98.7 | 1809 | 107.6 | 206.3 | 4.17 |
| Hilleshög HIL9920 | On Track | 347.2 | 103.8 | 1785 | 106.2 | 210.0 | 4.89 |
| Hilleshög HIL9921 | On Track | 345.2 | 103.2 | 1585 | 94.3 | 197.5 | 4.47 |
| Hilleshög HIL9922 | Not On Track | 325.4 | 97.3 | 1560 | 92.8 | 190.1 | 4.02 |
| Hilleshög HIL9923 | On Track | 337.5 | 100.9 | 1497 | 89.0 | 190.0 | 4.81 |
| Hilleshög HIL9924 | On Track | 335.0 | 100.2 | 1455 | 86.5 | 186.7 | 4.09 |
| Maribo MA717 | On Track | 342.0 | 102.3 | 1742 | 103.6 | 205.9 | 4.85 |
| Maribo MA718 | Not On Track | 330.0 | 98.7 | 1476 | 87.8 | 186.5 | 4.39 |
| Maribo MA719 | On Track | 337.1 | 100.8 | 1617 | 96.2 | 197.0 | 4.41 |
| SX RR1875 | On Track | 341.6 | 102.2 | 1605 | 95.5 | 197.6 | 4.06 |
| SX RR1876 | Not On Track | 332.6 | 99.5 | 1694 | 100.8 | 200.2 | 4.31 |
| SX RR1877 | Not On Track | 330.0 | 98.7 | 1626 | 96.7 | 195.4 | 4.62 |
| SX RR1878 | On Track | 335.6 | 100.4 | 1756 | 104.4 | 204.8 | 4.71 |
| SX RR1879 | On Track | 338.5 | 101.2 | 1770 | 105.3 | 206.5 | 4.88 |
| SV RR371 | On Track | 339.0 | 101.4 | 1833 | 109.0 | 210.4 | 4.59 |
| SV RR372 | On Track | 332.7 | 99.5 | 1723 | 102.5 | 202.0 | 4.23 |
| SV RR373 | Not On Track | 331.8 | 99.2 | 1613 | 95.9 | 195.2 | 4.31 |
| SV RR374 | On Track | 337.2 | 100.8 | 1776 | 105.6 | 206.5 | 4.71 |
| SV RR375 | Not On Track | 342.4 | 102.4 | 1802 | 107.2 | 209.6 | 5.08 |
| Benchmark Varieties | | | | | | | |
| BTS 80RR52 | | 334.2 | 99.9 | 1699 | 101.1 | | |
| Hilleshög 4302RR | | 334.0 | 99.9 | 1597 | 95.0 | | |
| Crystal 101RR | | 329.3 | 98.5 | 1718 | 102.2 | | |
| Crystal 355RR | | 340.0 | 101.7 | 1711 | 101.8 | | |
| Benchmark Mean | | 334.4 | | 1681 | | | |

^ = not on track for approval. On Track = data is tracking for potential approval.

^^ All Cercospora ratings 2017 were adjusted to 1982 basis.

Full market approval criteria include: 1) 2 years of official trial data, 2) Cercospora rating must not exceed 5.00 (1982 adjusted data), 3a) R/T >= 100% of Bench or 3b) R/T >= 97% and R/T + \$/A equal to 202 of Bench. Bench for 2017 added Crystal 355RR and dropped BTS 81RR17(Check).

Created 11-04-2017.

Table 28. Calculation for Approval of Sugarbeet Varieties for ACSC Aphanomyces Specialty Market for 2018

| Trial Yrs | Variety | Approval Status | Root Aph. Rating | | | | | Cercospora Rating + | | | | |
|------------------------------------|----------------------|-----------------|------------------|------|------|------|------|---------------------|------|------|------|------|
| | | | 2015 | 2016 | 2017 | 2 Yr | 3 Yr | 2015 | 2016 | 2017 | 2 Yr | 3 Yr |
| Previously Approved (3 Yrs) | | | <=4.70 | | | | | <=5.40 | | | | |
| 8 | BTS 80RR52 | Approved | 3.24 | 4.11 | 4.36 | 4.24 | 3.90 | 4.11 | 4.28 | 4.37 | 4.33 | 4.25 |
| 5 | BTS 8337 | Approved | 2.55 | 3.26 | 3.78 | 3.52 | 3.20 | 4.49 | 4.62 | 4.36 | 4.49 | 4.49 |
| 3 | BTS 8500 | Approved | 3.54 | 4.22 | 4.52 | 4.37 | 4.09 | 4.45 | 4.54 | 4.29 | 4.42 | 4.43 |
| 3 | BTS 8512 | Approved | 3.91 | 4.17 | 3.78 | 3.98 | 3.95 | 4.12 | 4.04 | 3.69 | 3.87 | 3.95 |
| 3 | BTS 8524 | Approved | 3.33 | 3.89 | 4.49 | 4.19 | 3.90 | 4.40 | 4.74 | 4.38 | 4.56 | 4.51 |
| 3 | BTS 8572 | Approved | 4.05 | 4.46 | 3.76 | 4.11 | 4.09 | 4.60 | 4.41 | 4.14 | 4.28 | 4.38 |
| 8 | Crystal 093RR | Approved | 3.86 | 4.32 | 4.43 | 4.38 | 4.20 | 4.76 | 4.95 | 4.49 | 4.72 | 4.73 |
| 7 | Crystal 101RR | Approved | 3.31 | 3.42 | 3.92 | 3.67 | 3.55 | 4.65 | 4.59 | 4.57 | 4.58 | 4.60 |
| 5 | Crystal 355RR | Approved | 3.26 | 4.46 | 4.84 | 4.65 | 4.19 | 4.43 | 4.60 | 4.36 | 4.48 | 4.46 |
| 4 | Crystal 467RR | Approved | 3.55 | 4.04 | 3.96 | 4.00 | 3.85 | 4.34 | 4.69 | 4.46 | 4.58 | 4.50 |
| 3 | Crystal 573RR | Approved | 3.69 | 4.06 | 3.84 | 3.95 | 3.86 | 4.15 | 4.35 | 4.15 | 4.25 | 4.22 |
| 3 | Crystal 574RR | Approved | 2.93 | 3.69 | 4.72 | 4.21 | 3.78 | 4.30 | 4.51 | 4.35 | 4.43 | 4.39 |
| 9 | Crystal 986RR | Approved | 3.87 | 4.41 | 4.09 | 4.25 | 4.12 | 4.97 | 4.75 | 4.77 | 4.76 | 4.83 |
| 3 | Hilleshög HIL9707 | Approved | 3.52 | 3.99 | 4.70 | 4.35 | 4.07 | 4.60 | 4.53 | 4.96 | 4.75 | 4.70 |
| 7 | Hilleshög 4302RR | NO | 4.02 | 4.63 | 6.66 | 5.65 | 5.10 | 4.13 | 4.13 | 3.93 | 4.03 | 4.06 |
| 5 | Hilleshög 9528RR | Approved | 2.97 | 3.77 | 5.63 | 4.70 | 4.12 | 5.16 | 4.73 | 4.99 | 4.86 | 4.96 |
| 4 | Maribo 109 | Approved | 3.54 | 4.27 | 5.06 | 4.67 | 4.29 | 4.56 | 4.14 | 4.14 | 4.14 | 4.28 |
| 3 | Maribo MA502 | Approved | 2.93 | 3.06 | 3.53 | 3.30 | 3.17 | 5.04 | 4.79 | 5.01 | 4.90 | 4.95 |
| 5 | SV RR333 | Approved | 3.46 | 4.71 | 4.99 | 4.85 | 4.39 | 4.54 | 4.85 | 4.84 | 4.85 | 4.74 |
| 3 | SV RR351 | Approved | 3.53 | 4.38 | 4.18 | 4.28 | 4.03 | 4.62 | 4.50 | 4.41 | 4.46 | 4.51 |
| 3 | SX Avalanche RR(858) | Approved | 3.40 | 4.44 | 4.00 | 4.22 | 3.95 | 4.15 | 4.74 | 4.64 | 4.69 | 4.51 |
| 4 | SX Canyon RR | Approved | 3.59 | 4.28 | 4.33 | 4.31 | 4.07 | 4.02 | 4.76 | 4.92 | 4.84 | 4.57 |
| 4 | SX Cruze RR | Approved | 4.14 | 3.41 | 4.79 | 4.10 | 4.11 | 4.57 | 4.65 | 5.37 | 5.01 | 4.86 |
| 5 | SX Winchester RR | Approved | 3.07 | 3.85 | 4.36 | 4.11 | 3.76 | 3.67 | 3.97 | 4.07 | 4.02 | 3.90 |
| Candidates for Approval | | | <=4.40 | | | | | <=5.20 | | | | |
| 5 | BTS 8363 | NO | 4.77 | 4.93 | 4.60 | 4.77 | 4.77 | 3.83 | 4.33 | 4.10 | 4.22 | 4.09 |
| 2 | BTS 8606 | NO | -- | 4.60 | 4.91 | 4.76 | -- | -- | 5.12 | 4.73 | 4.93 | -- |
| 2 | BTS 8629 | NO | -- | 4.14 | 4.68 | 4.41 | -- | -- | 4.59 | 4.29 | 4.44 | -- |
| 6 | Crystal 246RR | NO | 4.99 | 4.85 | 5.13 | 4.99 | 4.99 | 4.49 | 4.81 | 4.63 | 4.72 | 4.64 |
| 6 | Crystal 247RR | NO | 4.94 | 4.77 | 5.35 | 5.06 | 5.02 | 4.19 | 4.65 | 4.55 | 4.60 | 4.46 |
| 3 | Crystal 572RR | NO | 4.33 | 4.74 | 4.69 | 4.72 | 4.59 | 4.65 | 4.57 | 4.27 | 4.42 | 4.50 |
| 3 | Crystal 578RR | NO | 4.52 | 4.44 | 4.56 | 4.50 | 4.51 | 4.93 | 4.87 | 4.91 | 4.89 | 4.90 |
| 2 | Crystal 684RR | Approved | -- | 3.74 | 4.31 | 4.03 | -- | -- | 4.57 | 4.34 | 4.46 | -- |
| 3 | Hilleshög HIL9708 | NO | 4.69 | 4.82 | 5.94 | 5.38 | 5.15 | 5.04 | 4.74 | 4.61 | 4.68 | 4.80 |
| 2 | Hilleshög HIL9895 | Approved | -- | 3.65 | 4.39 | 4.02 | -- | -- | 4.49 | 4.84 | 4.67 | -- |
| 6 | Hilleshög 4448RR | NO | 2.80 | 3.90 | 6.29 | 5.10 | 4.33 | 5.29 | 5.21 | 5.28 | 5.25 | 5.26 |
| 5 | Maribo 305 | NO | 4.76 | 4.42 | 5.67 | 5.05 | 4.95 | 4.76 | 4.72 | 4.98 | 4.85 | 4.82 |
| 3 | Maribo MA504 | NO | 4.60 | 4.54 | 6.20 | 5.37 | 5.11 | 5.25 | 5.04 | 5.50 | 5.27 | 5.26 |
| 2 | Maribo MA611 | Approved | -- | 3.94 | 4.00 | 3.97 | -- | -- | 4.47 | 5.03 | 4.75 | -- |
| 4 | SV RR244TT | NO | 4.23 | 4.97 | 4.91 | 4.94 | 4.70 | 4.17 | 4.46 | 4.85 | 4.66 | 4.49 |
| 2 | SV RR265 | NO | -- | 4.54 | 5.35 | 4.95 | -- | -- | 5.00 | 5.19 | 5.10 | -- |
| 2 | SV RR266 | NO | -- | 4.62 | 5.64 | 5.13 | -- | -- | 4.74 | 4.61 | 4.68 | -- |
| 2 | SV RR268 | Approved | -- | 4.00 | 4.71 | 4.36 | -- | -- | 5.13 | 5.06 | 5.10 | -- |
| 3 | SX Marathon RR(856) | NO | 4.53 | 4.38 | 4.52 | 4.45 | 4.48 | 5.37 | 4.44 | 4.54 | 4.49 | 4.78 |
| 2 | SX RR1861 | NO | -- | 4.40 | 5.71 | 5.06 | -- | -- | 4.52 | 4.74 | 4.63 | -- |
| 2 | SX RR1863 | Approved | -- | 3.55 | 4.88 | 4.22 | -- | -- | 4.35 | 4.08 | 4.22 | -- |
| Approval Criteria new varieties | | | | | | 4.40 | | | | | | |
| Criteria to Maintain Approval | | | | | | 4.70 | | | | | | |

+ All Cercospora ratings 2015-2017 were adjusted to 1982 basis.

Aphanomyces approval criteria include: 1) Cercospora rating must not exceed 5.20 (1982 adjusted data), 2) Aph root rating <= 4.40 after 2 years. 3 yrs of data may be considered for initial approval.

To maintain Aphanomyces approval criteria include: 1) Cercospora 3 year mean must not exceed 5.40, 2) Aph root rating <= 4.70 after 3 years. Previously approved varieties not meeting current approval standards may be sold in 2018.

Created 11/8/2017

Table 29. Calculation for Approval of Sugarbeet Varieties for ACSC Rhizoctonia Specialty Market for 2018

| Variety | Approval Status | Disease Index + | | | | | Cercospora Rating | | | | |
|---------------------------------------|-----------------|-----------------|------|------|---------|---------|-------------------|------|------|---------|---------|
| | | 2015 | 2016 | 2017 | 2 Yr Mn | 3 Yr Mn | 2015 | 2016 | 2017 | 2 Yr Mn | 3 Yr Mn |
| Previously Approved (3 Yr) | | | | | | | | | | | |
| Crystal 355RR | Approved | NE | 3.96 | 4.09 | 4.03 | NE | 4.43 | 4.60 | 4.36 | 4.48 | 4.46 |
| Hilleshög 4302RR | Approved | 3.70 | 3.65 | 3.60 | 3.63 | 3.65 | 4.13 | 4.13 | 3.93 | 4.03 | 4.06 |
| Maribo 109 | Approved | 3.67 | 3.69 | 3.63 | 3.66 | 3.66 | 4.56 | 4.14 | 4.14 | 4.14 | 4.28 |
| Candidates for Approval (2 Yr) | | | | | | | | | | | |
| BTS 80RR52 | Not Approved | 3.95 | 4.41 | 4.14 | 4.28 | 4.17 | 4.11 | 4.28 | 4.37 | 4.33 | 4.25 |
| BTS 8337 | Not Approved | 3.87 | 4.08 | 4.30 | 4.19 | 4.08 | 4.49 | 4.62 | 4.36 | 4.49 | 4.49 |
| BTS 8363 | Not Approved | 4.12 | 4.34 | 4.85 | 4.60 | 4.44 | 3.83 | 4.33 | 4.10 | 4.22 | 4.09 |
| BTS 8500 | Not Approved | 4.19 | 4.43 | 4.57 | 4.50 | 4.40 | 4.45 | 4.54 | 4.29 | 4.42 | 4.43 |
| BTS 8512 | Not Approved | 4.28 | 4.44 | 4.28 | 4.36 | 4.33 | 4.12 | 4.04 | 3.69 | 3.87 | 3.95 |
| BTS 8524 | Not Approved | 4.14 | 4.20 | 4.41 | 4.31 | 4.25 | 4.40 | 4.74 | 4.38 | 4.56 | 4.51 |
| BTS 8572 | Not Approved | 3.85 | 4.54 | 4.32 | 4.43 | 4.24 | 4.60 | 4.41 | 4.14 | 4.28 | 4.38 |
| BTS 8606 | Not Approved | -- | 4.48 | 5.00 | 4.74 | -- | -- | 5.12 | 4.73 | 4.93 | -- |
| BTS 8629 | Not Approved | -- | 3.73 | 4.21 | 3.97 | -- | -- | 4.59 | 4.29 | 4.44 | -- |
| Crystal 093RR | Not Approved | 3.96 | 4.37 | 4.50 | 4.44 | 4.28 | 4.76 | 4.95 | 4.49 | 4.72 | 4.73 |
| Crystal 101RR | Not Approved | 4.64 | 4.78 | 4.78 | 4.78 | 4.73 | 4.65 | 4.59 | 4.57 | 4.58 | 4.60 |
| Crystal 246RR | Not Approved | 4.19 | 4.32 | 4.23 | 4.28 | 4.25 | 4.49 | 4.81 | 4.63 | 4.72 | 4.64 |
| Crystal 247RR | Not Approved | 4.33 | 4.32 | 4.49 | 4.41 | 4.38 | 4.19 | 4.65 | 4.55 | 4.60 | 4.46 |
| Crystal 467RR | Not Approved | 3.97 | 4.26 | 4.47 | 4.37 | 4.23 | 4.34 | 4.69 | 4.46 | 4.58 | 4.50 |
| Crystal 572RR | Not Approved | 3.89 | 4.21 | 4.47 | 4.34 | 4.19 | 4.65 | 4.57 | 4.27 | 4.42 | 4.50 |
| Crystal 573RR | Not Approved | 4.25 | 4.55 | 4.57 | 4.56 | 4.46 | 4.15 | 4.35 | 4.15 | 4.25 | 4.22 |
| Crystal 574RR | Not Approved | 4.16 | 4.47 | 4.16 | 4.32 | 4.26 | 4.30 | 4.51 | 4.35 | 4.43 | 4.39 |
| Crystal 578RR | Not Approved | 4.03 | 4.32 | 4.40 | 4.36 | 4.25 | 4.93 | 4.87 | 4.91 | 4.89 | 4.90 |
| Crystal 684RR | Not Approved | -- | 4.41 | 4.57 | 4.49 | -- | -- | 4.57 | 4.34 | 4.46 | -- |
| Crystal 986RR | Not Approved | 4.06 | 4.38 | 4.39 | 4.39 | 4.28 | 4.97 | 4.75 | 4.77 | 4.76 | 4.83 |
| Hilleshög 4448RR | Not Approved | 3.92 | 4.51 | 4.63 | 4.57 | 4.35 | 5.29 | 5.21 | 5.28 | 5.25 | 5.26 |
| Hilleshög 9528RR | Not Approved | 4.10 | 4.21 | 4.21 | 4.21 | 4.17 | 5.16 | 4.73 | 4.99 | 4.86 | 4.96 |
| Hilleshög HIL9707 | Not Approved | 4.21 | 4.40 | 4.43 | 4.42 | 4.35 | 4.60 | 4.53 | 4.96 | 4.75 | 4.70 |
| Hilleshög HIL9708 | Not Approved | 4.04 | 4.28 | 4.21 | 4.25 | 4.18 | 5.04 | 4.74 | 4.61 | 4.68 | 4.80 |
| Hilleshög HIL9895 | Not Approved | -- | 4.56 | 4.34 | 4.45 | -- | -- | 4.49 | 4.84 | 4.67 | -- |
| Maribo 305 | Not Approved | 3.83 | 4.40 | 4.60 | 4.50 | 4.28 | 4.76 | 4.72 | 4.98 | 4.85 | 4.82 |
| Maribo MA502 | Not Approved | 4.14 | 4.73 | 4.78 | 4.76 | 4.55 | 5.04 | 4.79 | 5.01 | 4.90 | 4.95 |
| Maribo MA504 | Not Approved | 3.98 | 4.58 | 4.37 | 4.48 | 4.31 | 5.25 | 5.04 | 5.50 | 5.27 | 5.26 |
| Maribo MA611 | Not Approved | -- | 4.63 | 4.44 | 4.54 | -- | -- | 4.47 | 5.03 | 4.75 | -- |
| SX Avalanche RR(858) | Not Approved | 4.21 | 4.52 | 4.29 | 4.41 | 4.34 | 4.15 | 4.74 | 4.64 | 4.69 | 4.51 |
| SX Canyon RR | Not Approved | 4.22 | 4.40 | 4.51 | 4.46 | 4.38 | 4.02 | 4.76 | 4.92 | 4.84 | 4.57 |
| SX Cruze RR | Not Approved | 4.18 | 4.69 | 4.39 | 4.54 | 4.42 | 4.57 | 4.65 | 5.37 | 5.01 | 4.86 |
| SX Marathon RR(856) | Not Approved | 4.16 | 4.47 | 4.40 | 4.44 | 4.34 | 5.37 | 4.44 | 4.54 | 4.49 | 4.78 |
| SX RR1861 | Not Approved | -- | 4.59 | 4.50 | 4.55 | -- | -- | 4.52 | 4.74 | 4.63 | -- |
| SX RR1863 | Not Approved | -- | 4.54 | 4.23 | 4.39 | -- | -- | 4.35 | 4.08 | 4.22 | -- |
| SX Winchester RR | Not Approved | 4.28 | 4.63 | 4.47 | 4.55 | 4.46 | 3.67 | 3.97 | 4.07 | 4.02 | 3.90 |
| SV RR244TT | Not Approved | 4.18 | 4.45 | 4.50 | 4.48 | 4.38 | 4.17 | 4.46 | 4.85 | 4.66 | 4.49 |
| SV RR265 | Not Approved | -- | 4.44 | 4.42 | 4.43 | -- | -- | 5.00 | 5.19 | 5.10 | -- |
| SV RR266 | Not Approved | -- | 4.20 | 4.39 | 4.30 | -- | -- | 4.74 | 4.61 | 4.68 | -- |
| SV RR268 | Not Approved | -- | 4.70 | 4.57 | 4.64 | -- | -- | 5.13 | 5.06 | 5.10 | -- |
| SV RR333 | Not Approved | 4.11 | 4.44 | 4.44 | 4.44 | 4.33 | 4.54 | 4.85 | 4.84 | 4.85 | 4.74 |
| SV RR351 | Not Approved | -- | 4.17 | 4.25 | 4.21 | -- | 4.62 | 4.50 | 4.41 | 4.46 | 4.51 |
| Susceptible Checks | | | | | | | | | | | |
| RH CK#08 CRY5539RR | | 4.65 | 4.84 | 4.74 | | | | | | | |
| RH CK#21 CRY5768RR | | -- | -- | 4.66 | | | | | | | |
| RH CK#24 BETA86RR88 | | 4.82 | -- | -- | | | | | | | |
| RH CK#25 HILL4043RR | | 4.35 | 4.76 | 4.51 | | | | | | | |
| RH CK#27 HILL4012RR | | 4.41 | -- | -- | | | | | | | |
| RH CK#28 CRY5658RR | | -- | 4.57 | -- | | | | | | | |
| RH CK#29 BETA87RR58 | | 4.77 | 4.67 | 4.79 | | | | | | | |
| RH CK#30 SES36711RR | | 4.91 | -- | -- | | | | | | | |
| RH CK#31 HILL4000RR | | 5.03 | 4.80 | 4.65 | | | | | | | |
| RH CK#34 BETA86RR66 | | 4.57 | -- | -- | | | | | | | |
| RH CK#35 SES36812RR | | 4.37 | 4.55 | 4.71 | | | | | | | |
| RH CK#36 BETA85RR02 | | 4.71 | -- | -- | | | | | | | |
| RH CK#37 SES36918RR | | 4.34 | 4.67 | -- | | | | | | | |
| RH CK#40 CRY5101RR | | 4.55 | 4.65 | 4.55 | | | | | | | |
| RH CK#45 BTS82RR33 | | -- | -- | 4.73 | | | | | | | |
| RH CK#47 SES36272RR | | -- | 4.50 | 4.62 | | | | | | | |
| RH CK#49 CRY5247RR | | -- | 4.38 | 4.65 | | | | | | | |
| Susceptible Hybrid Mean | | 4.62 | 4.64 | 4.66 | 4.65 | 4.64 | | | | 5.20 | 5.40 |
| Approval Criteria ++ | | 3.82 | 3.82 | 3.82 | 3.82 | 3.82 | | | | | |
| Disapproval Criteria | | | | | | | | | | | 4.18 |

Rhc and CR ratings were adjusted based upon check performance.

Created 11/8/2017

+ Disease Index is based on a scale of 0 (healthy) to 7 (dead).

++ Candidates must have better tolerance than susc. check mean * 80%. To maintain approval, tolerance must be better than susc. check mean * 90%. Previously approved varieties not meeting current approval standards may be sold in 2018.

Table 30. 2017 Aphanomyces Ratings for Official Trial Entries
Betaseed Nursery - Shakopee, MN & ACSC - RRV

| Chk @ | Code | Variety | Adjusted @ | | | | | Trial Yrs | |
|----------|------|-------------------|--------------|-------|------|-------|--------|--------------|---------|
| | | | Shak 8/30 | 2017 | 2 Yr | 3 Yr | 2016^^ | | 2015 ^^ |
| | | | | 1 loc | 3loc | 5 loc | 2 loc | 2 loc | |
| | 529 | BTS 80RR52 | 4.36 | 4.36 | 4.23 | 3.90 | 4.11 | 3.24 | 8 |
| | 545 | BTS 8337 | 3.78 | 3.78 | 3.52 | 3.19 | 3.26 | 2.55 | 5 |
| | 562 | BTS 8363 | 4.60 | 4.60 | 4.76 | 4.76 | 4.93 | 4.77 | 5 |
| | 513 | BTS 8500 | 4.52 | 4.52 | 4.37 | 4.09 | 4.22 | 3.54 | 3 |
| | 533 | BTS 8512 | 3.78 | 3.78 | 3.97 | 3.95 | 4.17 | 3.91 | 3 |
| | 550 | BTS 8524 | 4.49 | 4.49 | 4.19 | 3.90 | 3.89 | 3.33 | 3 |
| | 570 | BTS 8572 | 3.76 | 3.76 | 4.11 | 4.09 | 4.46 | 4.05 | 3 |
| | 509 | BTS 8606 | 4.91 | 4.91 | 4.75 | -- | 4.60 | -- | 2 |
| | 525 | BTS 8629 | 4.68 | 4.68 | 4.41 | -- | 4.14 | -- | 2 |
| | 577 | BTS 8735 | 4.74 | 4.74 | -- | -- | -- | -- | 1 |
| | 506 | BTS 8742 | 5.02 | 5.02 | -- | -- | -- | -- | 1 |
| | 536 | BTS 8749 | 3.53 | 3.53 | -- | -- | -- | -- | 1 |
| | 540 | BTS 8756 | 5.23 | 5.23 | -- | -- | -- | -- | 1 |
| | 521 | BTS 8767 | 4.80 | 4.80 | -- | -- | -- | -- | 1 |
| | 518 | BTS 8770 | 4.97 | 4.97 | -- | -- | -- | -- | 1 |
| | 567 | BTS 8784 | 4.59 | 4.59 | -- | -- | -- | -- | 1 |
| | 502 | BTS 8787 | 4.71 | 4.71 | -- | -- | -- | -- | 1 |
| | 512 | BTS 8798 | 4.92 | 4.92 | -- | -- | -- | -- | 1 |
| | 549 | Crystal 093RR | 4.43 | 4.43 | 4.38 | 4.21 | 4.32 | 3.86 | 8 |
| | 551 | Crystal 101RR | 3.92 | 3.92 | 3.67 | 3.55 | 3.42 | 3.31 | 7 |
| | 507 | Crystal 246RR | 5.13 | 5.13 | 4.99 | 4.99 | 4.85 | 4.99 | 6 |
| | 560 | Crystal 247RR | 5.35 | 5.35 | 5.06 | 5.02 | 4.77 | 4.94 | 6 |
| | 565 | Crystal 355RR | 4.84 | 4.84 | 4.65 | 4.19 | 4.46 | 3.26 | 5 |
| | 523 | Crystal 467RR | 3.96 | 3.96 | 4.00 | 3.85 | 4.04 | 3.55 | 4 |
| | 503 | Crystal 572RR | 4.69 | 4.69 | 4.71 | 4.59 | 4.74 | 4.33 | 3 |
| | 554 | Crystal 573RR | 3.84 | 3.84 | 3.95 | 3.86 | 4.06 | 3.69 | 3 |
| | 544 | Crystal 574RR | 4.72 | 4.72 | 4.21 | 3.78 | 3.69 | 2.93 | 3 |
| | 571 | Crystal 578RR | 4.56 | 4.56 | 4.50 | 4.51 | 4.44 | 4.52 | 3 |
| | 510 | Crystal 684RR | 4.31 | 4.31 | 4.02 | -- | 3.74 | -- | 2 |
| | 547 | Crystal 792RR | 4.73 | 4.73 | -- | -- | -- | -- | 1 |
| | 557 | Crystal 793RR | 3.02 | 3.02 | -- | -- | -- | -- | 1 |
| | 534 | Crystal 794RR | 4.65 | 4.65 | -- | -- | -- | -- | 1 |
| | 522 | Crystal 795RR | 4.40 | 4.40 | -- | -- | -- | -- | 1 |
| | 553 | Crystal 796RR | 3.11 | 3.11 | -- | -- | -- | -- | 1 |
| | 528 | Crystal 797RR | 5.21 | 5.21 | -- | -- | -- | -- | 1 |
| | 532 | Crystal 986RR | 4.09 | 4.09 | 4.25 | 4.12 | 4.41 | 3.87 | 9 |
| | 559 | Hilleshög HIL9707 | 4.70 | 4.70 | 4.34 | 4.07 | 3.99 | 3.52 | 3 |
| | 576 | Hilleshög HIL9708 | 5.94 | 5.94 | 5.38 | 5.15 | 4.82 | 4.69 | 3 |
| | 561 | Hilleshög HIL9895 | 4.39 | 4.39 | 4.02 | -- | 3.65 | -- | 2 |
| | 566 | Hilleshög HIL9920 | 4.94 | 4.94 | -- | -- | -- | -- | 1 |
| | 563 | Hilleshög HIL9921 | 5.41 | 5.41 | -- | -- | -- | -- | 1 |
| | 504 | Hilleshög HIL9922 | 5.79 | 5.79 | -- | -- | -- | -- | 1 |
| | 543 | Hilleshög HIL9923 | 5.06 | 5.06 | -- | -- | -- | -- | 1 |
| | 517 | Hilleshög HIL9924 | 5.37 | 5.37 | -- | -- | -- | -- | 1 |
| | 505 | Hilleshög 4302RR | 6.66 | 6.66 | 5.65 | 5.10 | 4.63 | 4.02 | 7 |
| | 542 | Hilleshög 4448RR | 6.29 | 6.29 | 5.09 | 4.33 | 3.90 | 2.80 | 6 |
| | 531 | Hilleshög 9528RR | 5.63 | 5.63 | 4.70 | 4.12 | 3.77 | 2.97 | 5 |
| | 556 | Maribo 109 | 5.06 | 5.06 | 4.66 | 4.29 | 4.27 | 3.54 | 4 |
| | 539 | Maribo 305 | 5.67 | 5.67 | 5.05 | 4.95 | 4.42 | 4.76 | 5 |
| | 526 | Maribo MA502 | 3.53 | 3.53 | 3.29 | 3.17 | 3.06 | 2.93 | 3 |

Table 30. 2017 Aphanomyces Ratings for Official Trial Entries
Betaseed Nursery - Shakopee, MN & ACSC - RRV

| Chk @ | Code | Variety | Adjusted @ | | | | | Trial Yrs | |
|----------|------|-----------------------|--------------|-------|------|-------|--------|--------------|---------|
| | | | Shak 8/30 | 2017 | 2 Yr | 3 Yr | 2016^^ | | 2015 ^^ |
| | | | | 1 loc | 3loc | 5 loc | 2 loc | 2 loc | |
| | 514 | Maribo MA504 | 6.20 | 6.20 | 5.37 | 5.11 | 4.54 | 4.60 | 3 |
| | 568 | Maribo MA611 | 4.00 | 4.00 | 3.97 | -- | 3.94 | -- | 2 |
| | 574 | Maribo MA717 | 5.31 | 5.31 | -- | -- | -- | -- | 1 |
| | 530 | Maribo MA718 | 4.46 | 4.46 | -- | -- | -- | -- | 1 |
| | 538 | Maribo MA719 | 4.75 | 4.75 | -- | -- | -- | -- | 1 |
| | 564 | SV RR244TT | 4.91 | 4.91 | 4.94 | 4.70 | 4.97 | 4.23 | 4 |
| | 511 | SV RR265 | 5.35 | 5.35 | 4.95 | -- | 4.54 | -- | 2 |
| | 555 | SV RR266 | 5.64 | 5.64 | 5.13 | -- | 4.62 | -- | 2 |
| | 572 | SV RR268 | 4.71 | 4.71 | 4.36 | -- | 4.00 | -- | 2 |
| | 541 | SV RR333 | 4.99 | 4.99 | 4.85 | 4.39 | 4.71 | 3.46 | 5 |
| | 573 | SV RR351 | 4.18 | 4.18 | 4.28 | 4.03 | 4.38 | 3.53 | 3 |
| | 515 | SV RR371 | 4.55 | 4.55 | -- | -- | -- | -- | 1 |
| | 501 | SV RR372 | 4.42 | 4.42 | -- | -- | -- | -- | 1 |
| | 508 | SV RR373 | 4.93 | 4.93 | -- | -- | -- | -- | 1 |
| | 578 | SV RR374 | 5.20 | 5.20 | -- | -- | -- | -- | 1 |
| | 546 | SV RR375 | 4.54 | 4.54 | -- | -- | -- | -- | 1 |
| | 537 | SX Avalanche RR(858) | 4.00 | 4.00 | 4.22 | 3.95 | 4.44 | 3.40 | 3 |
| | 548 | SX Canyon RR | 4.33 | 4.33 | 4.31 | 4.07 | 4.28 | 3.59 | 4 |
| | 535 | SX Cruze RR | 4.79 | 4.79 | 4.10 | 4.11 | 3.41 | 4.14 | 4 |
| | 519 | SX Marathon RR(856) | 4.52 | 4.52 | 4.45 | 4.48 | 4.38 | 4.53 | 3 |
| | 558 | SX RR1861 | 5.71 | 5.71 | 5.05 | -- | 4.40 | -- | 2 |
| | 527 | SX RR1863 | 4.88 | 4.88 | 4.21 | -- | 3.55 | -- | 2 |
| | 516 | SX RR1875 | 4.13 | 4.13 | -- | -- | -- | -- | 1 |
| | 520 | SX RR1876 | 4.73 | 4.73 | -- | -- | -- | -- | 1 |
| | 569 | SX RR1877 | 3.84 | 3.84 | -- | -- | -- | -- | 1 |
| | 552 | SX RR1878 | 5.54 | 5.54 | -- | -- | -- | -- | 1 |
| | 524 | SX RR1879 | 4.18 | 4.18 | -- | -- | -- | -- | 1 |
| | 575 | SX Winchester RR | 4.36 | 4.36 | 4.11 | 3.76 | 3.85 | 3.07 | 5 |
| 1 | 1001 | AP Ck-32 CRY5981RR | 3.19 | 3.19 | 3.45 | 3.38 | 3.71 | 3.25 | 9 |
| 1 | 1002 | AP CK-33 CRY5768RR | 4.74 | 4.74 | 4.73 | 4.77 | 4.71 | 4.86 | 11 |
| 1 | 1003 | AP CK-34 HILL4000RR | 6.76 | 6.76 | 6.13 | 6.00 | 5.49 | 5.73 | 11 |
| 1 | 1004 | AP CK-35 BETA87RR58 | 4.86 | 4.86 | 5.03 | 5.29 | 5.20 | 5.79 | 11 |
| 1 | 1005 | AP CK-41 CRY5765RR | 6.01 | 6.01 | 5.91 | 6.19 | 5.81 | 6.73 | 7 |
| 1 | 1006 | AP CK-43 BTS80RR32 | 4.64 | 4.64 | 4.65 | 4.86 | 4.66 | 5.26 | 8 |
| 1 | 1007 | AP CK-44 SX VISION RR | 5.17 | 5.17 | 5.07 | 5.16 | 4.97 | 5.33 | 9 |
| 1 | 1008 | AP CK-45 CRY5986RR | 4.22 | 4.22 | 4.41 | 4.32 | 4.60 | 4.14 | 9 |
| 1 | 1009 | AP CK-47 CRY5101RR | 3.83 | 3.83 | 3.62 | 3.46 | 3.41 | 3.14 | 7 |
| 1 | 1010 | AP CK-49 BTS82RR33 | 6.29 | 6.29 | 5.96 | 6.00 | 5.63 | 6.09 | 6 |
| 1 | 1011 | AP CK-51 CRY5246RR | 4.65 | 4.65 | 4.77 | 4.84 | 4.89 | 4.99 | 6 |
| 1 | 1012 | AP CK-52 HILL4094RR | 4.58 | 4.58 | 4.74 | 4.69 | 4.90 | 4.60 | 10 |
| 1 | 1013 | AP CK-53 CRY5093RR | 4.19 | 4.19 | 4.37 | 4.20 | 4.55 | 3.86 | 8 |
| 1 | 1014 | AP CK-54 SES36273RR | 5.05 | 5.05 | 4.76 | 4.63 | 4.46 | 4.38 | 6 |
| 1 | 1015 | AP CK-55 CRY5247RR | 4.00 | 4.00 | 4.59 | 4.71 | 5.19 | 4.94 | 6 |
| | 1016 | AP CHK SUS HYB#3 | 4.99 | 4.99 | 5.34 | 5.90 | 5.70 | 7.03 | 11 |
| | 1017 | AP CHK MOD RES RR | 4.65 | 4.65 | 4.71 | 4.54 | 4.76 | 4.22 | 11 |
| | 1018 | AP CHK RES RR | 4.49 | 4.49 | 4.21 | 4.00 | 3.93 | 3.59 | 12 |
| | 1019 | AP CHK SUS HYB#3 | 5.40 | 5.40 | 5.55 | 6.04 | 5.70 | 7.03 | 11 |
| | 1020 | AP CHK SUS HYB#4 | 5.99 | 5.99 | 5.92 | 6.46 | 5.85 | 7.56 | 11 |
| | 1021 | AP CHK MOD RES RR#2 | 4.78 | 4.78 | 4.76 | 4.68 | 4.74 | 4.51 | 11 |
| | 1022 | AP CHK MOD RES RR#4 | 4.74 | 4.74 | 4.76 | 4.82 | 4.77 | 4.94 | 6 |

Table 30. 2017 Aphanomyces Ratings for Official Trial Entries
Betaseed Nursery - Shakopee, MN & ACSC - RRV

| Chk @ | Code | Variety | Adjusted @ | | | | | Trial Yrs | |
|----------|------|---------------------|--------------|-------|------|-------|--------|--------------|---------|
| | | | Shak 8/30 | 2017 | 2 Yr | 3 Yr | 2016^^ | | 2015 ^^ |
| | | | | 1 loc | 3loc | 5 loc | 2 loc | 2 loc | |
| | 1023 | AC CHK RES RR#3 | 3.23 | 3.23 | 3.13 | 2.88 | 3.02 | 2.38 | 10 |
| | 1024 | AP CHK SUS HYB#4 | 6.20 | 6.20 | 6.02 | 6.53 | 5.85 | 7.56 | 11 |
| | | Conventional | | | | | | | |
| | 919 | BETA EXP 687 | 4.30 | 4.30 | 4.59 | -- | 4.88 | -- | 2 |
| | 918 | BETA EXP 698 | 3.62 | 3.62 | 3.65 | -- | 3.69 | -- | 2 |
| | 905 | BETA EXP 747 | 3.60 | 3.60 | -- | -- | -- | -- | 1 |
| | 909 | BETA EXP 758 | 3.29 | 3.29 | -- | -- | -- | -- | 1 |
| | 901 | Crystal 620 | 4.09 | 4.09 | 4.18 | -- | 4.28 | -- | 2 |
| | 906 | Crystal 622 | 4.05 | 4.05 | 4.20 | -- | 4.36 | -- | 2 |
| | 913 | Crystal 735 | 3.93 | 3.93 | -- | -- | -- | -- | 1 |
| | 910 | Crystal 737 | 2.25 | 2.25 | -- | -- | -- | -- | 1 |
| | 902 | Crystal R761 | 4.01 | 4.01 | 3.79 | -- | 3.57 | -- | 11 |
| | 914 | Hilleshög 3035Rz | 5.18 | 5.18 | 4.79 | -- | 4.40 | -- | 13 |
| | 917 | Hilleshög 9891Rz | 4.89 | 4.89 | 4.67 | -- | 4.45 | -- | 2 |
| | 904 | Maribo MA615Rz | 5.30 | 5.30 | 5.05 | -- | 4.80 | -- | 2 |
| | 916 | Maribo MA720Rz | 5.15 | 5.15 | -- | -- | -- | -- | 1 |
| | 911 | Seedex 8869 | 4.99 | 4.99 | 4.85 | -- | 4.70 | -- | 2 |
| | 907 | Seedex Deuce | 6.04 | 6.04 | 5.87 | -- | 5.70 | -- | 10 |
| | 912 | Strube 12720 | 8.11 | 8.11 | -- | -- | -- | -- | 1 |
| | 908 | Strube 13722 | 7.54 | 7.54 | -- | -- | -- | -- | 1 |
| | 903 | SV 48611 | 4.25 | 4.25 | 4.36 | -- | 4.47 | -- | 2 |
| | 915 | SV 48777 | 4.20 | 4.20 | -- | -- | -- | -- | 1 |
| | 1001 | AP Ck-32 CRY5981RR | 2.93 | 2.93 | 3.32 | 3.30 | 3.71 | 3.25 | 9 |
| | 1003 | AP CK-34 HILL4000RR | 6.36 | 6.36 | 5.92 | 5.86 | 5.49 | 5.73 | 11 |
| | 1006 | AP CK-43 BTS80RR32 | 5.57 | 5.57 | 5.11 | 5.16 | 4.66 | 5.26 | 8 |
| | 1009 | AP CK-47 CRY5101RR | 3.01 | 3.01 | 3.21 | 3.19 | 3.41 | 3.14 | 7 |
| | 1011 | AP CK-51 CRY5246RR | 5.20 | 5.20 | 5.05 | 5.03 | 4.89 | 4.99 | 6 |
| 15 | | Check Mean | 4.81 | 4.81 | | | | | |
| | | Trial Mean | 4.75 | 4.75 | | | | | |
| | | Coeff. of Var. (%) | 24.9 | | | | | | |
| | | Mean LSD (0.05) | 1.44 | | | | | | |
| | | Mean LSD (0.01) | 1.90 | | | | | | |
| | | Sig Lvl | ** | | | | | | |
| | | Adjustment Factor | 1.11 | | | | | | |

@ 2017 Root Rating was taken in early fall (1=healthy, 9=severe damage).

Created 11/3/2017

Ratings adjusted to 2003 basis. (2000-2002 Aph nurseries). Adjustment based on variety checks.

Table 31. 2017 Cercospora Ratings for ACSC Official Trial Entries
Betaseed (Randolph MN), BSDF (Frankenmuth MI) & NDSU (Foxhome MN)

| Chk @ | Code | Variety | Adjusted to 1982 Basis @ | | | | | | | Trial Yrs | |
|----------|-------------------|---------|--------------------------|-------------|----------------|-------|-------|-------|-------|--------------|------|
| | | | Beta Avg | BSDF Avg | Foxhome Avg | 2017 | 2 Yr | 3 Yr | 2016 | | 2015 |
| | | | 5 Dates+ | 5 Dates+ | 8 Dates+ | 3 loc | 6 loc | 9 loc | 3 loc | 3 loc | |
| 529 | BTS 80RR52 | | 3.59 | 5.40 | 4.13 | 4.37 | 4.33 | 4.26 | 4.28 | 4.11 | 8 |
| 545 | BTS 8337 | | 4.25 | 4.37 | 4.46 | 4.36 | 4.49 | 4.49 | 4.62 | 4.49 | 5 |
| 562 | BTS 8363 | | 3.96 | 4.48 | 3.87 | 4.10 | 4.21 | 4.09 | 4.33 | 3.83 | 5 |
| 513 | BTS 8500 | | 4.44 | 4.52 | 3.90 | 4.29 | 4.41 | 4.43 | 4.54 | 4.45 | 3 |
| 533 | BTS 8512 | | 2.99 | 4.29 | 3.79 | 3.69 | 3.86 | 3.95 | 4.04 | 4.12 | 3 |
| 550 | BTS 8524 | | 4.61 | 4.55 | 3.98 | 4.38 | 4.56 | 4.51 | 4.74 | 4.40 | 3 |
| 570 | BTS 8572 | | 3.51 | 4.46 | 4.45 | 4.14 | 4.27 | 4.38 | 4.41 | 4.60 | 3 |
| 509 | BTS 8606 | | 4.76 | 4.81 | 4.62 | 4.73 | 4.92 | -- | 5.12 | -- | 2 |
| 525 | BTS 8629 | | 4.18 | 4.46 | 4.22 | 4.29 | 4.44 | -- | 4.59 | -- | 2 |
| 577 | BTS 8735 | | 3.92 | 4.77 | 3.97 | 4.22 | -- | -- | -- | -- | 1 |
| 506 | BTS 8742 | | 3.73 | 4.65 | 4.71 | 4.36 | -- | -- | -- | -- | 1 |
| 536 | BTS 8749 | | 3.42 | 4.65 | 4.08 | 4.05 | -- | -- | -- | -- | 1 |
| 540 | BTS 8756 | | 3.27 | 4.65 | 4.12 | 4.01 | -- | -- | -- | -- | 1 |
| 521 | BTS 8767 | | 4.07 | 4.30 | 4.10 | 4.16 | -- | -- | -- | -- | 1 |
| 518 | BTS 8770 | | 4.18 | 4.96 | 3.77 | 4.30 | -- | -- | -- | -- | 1 |
| 567 | BTS 8784 | | 2.93 | 4.23 | 3.81 | 3.65 | -- | -- | -- | -- | 1 |
| 502 | BTS 8787 | | 3.66 | 4.60 | 3.84 | 4.03 | -- | -- | -- | -- | 1 |
| 512 | BTS 8798 | | 3.92 | 4.58 | 4.42 | 4.30 | -- | -- | -- | -- | 1 |
| 549 | Crystal 093RR | | 4.05 | 4.60 | 4.81 | 4.49 | 4.72 | 4.73 | 4.95 | 4.76 | 8 |
| 551 | Crystal 101RR | | 4.84 | 4.41 | 4.47 | 4.57 | 4.58 | 4.60 | 4.59 | 4.65 | 7 |
| 507 | Crystal 246RR | | 4.90 | 4.69 | 4.30 | 4.63 | 4.72 | 4.64 | 4.81 | 4.49 | 6 |
| 560 | Crystal 247RR | | 4.95 | 4.41 | 4.30 | 4.55 | 4.60 | 4.47 | 4.65 | 4.19 | 6 |
| 565 | Crystal 355RR | | 4.06 | 4.65 | 4.38 | 4.36 | 4.48 | 4.46 | 4.60 | 4.43 | 5 |
| 523 | Crystal 467RR | | 4.49 | 4.61 | 4.27 | 4.46 | 4.57 | 4.49 | 4.69 | 4.34 | 4 |
| 503 | Crystal 572RR | | 4.01 | 4.30 | 4.51 | 4.27 | 4.42 | 4.50 | 4.57 | 4.65 | 3 |
| 554 | Crystal 573RR | | 3.84 | 4.18 | 4.42 | 4.15 | 4.25 | 4.22 | 4.35 | 4.15 | 3 |
| 544 | Crystal 574RR | | 4.56 | 4.54 | 3.96 | 4.35 | 4.43 | 4.39 | 4.51 | 4.30 | 3 |
| 571 | Crystal 578RR | | 5.46 | 4.80 | 4.47 | 4.91 | 4.89 | 4.91 | 4.87 | 4.93 | 3 |
| 510 | Crystal 684RR | | 4.26 | 4.65 | 4.10 | 4.34 | 4.45 | -- | 4.57 | -- | 2 |
| 547 | Crystal 792RR | | 3.04 | 4.55 | 4.22 | 3.94 | -- | -- | -- | -- | 1 |
| 557 | Crystal 793RR | | 3.28 | 4.31 | 4.20 | 3.93 | -- | -- | -- | -- | 1 |
| 534 | Crystal 794RR | | 5.30 | 5.04 | 4.42 | 4.92 | -- | -- | -- | -- | 1 |
| 522 | Crystal 795RR | | 3.92 | 4.88 | 4.38 | 4.39 | -- | -- | -- | -- | 1 |
| 553 | Crystal 796RR | | 4.84 | 4.94 | 4.78 | 4.85 | -- | -- | -- | -- | 1 |
| 528 | Crystal 797RR | | 3.73 | 4.49 | 4.29 | 4.17 | -- | -- | -- | -- | 1 |
| 532 | Crystal 986RR | | 4.25 | 4.89 | 5.16 | 4.77 | 4.76 | 4.83 | 4.75 | 4.97 | 9 |
| 559 | Hilleshög HIL9707 | | 4.76 | 5.19 | 4.92 | 4.96 | 4.74 | 4.70 | 4.53 | 4.60 | 3 |
| 576 | Hilleshög HIL9708 | | 4.71 | 4.59 | 4.55 | 4.61 | 4.68 | 4.80 | 4.74 | 5.04 | 3 |
| 561 | Hilleshög HIL9895 | | 4.77 | 4.88 | 4.87 | 4.84 | 4.67 | -- | 4.49 | -- | 2 |
| 566 | Hilleshög HIL9920 | | 4.31 | 5.04 | 5.33 | 4.89 | -- | -- | -- | -- | 1 |
| 563 | Hilleshög HIL9921 | | 4.31 | 4.75 | 4.34 | 4.47 | -- | -- | -- | -- | 1 |
| 504 | Hilleshög HIL9922 | | 3.76 | 4.54 | 3.77 | 4.02 | -- | -- | -- | -- | 1 |
| 543 | Hilleshög HIL9923 | | 5.09 | 5.26 | 4.08 | 4.81 | -- | -- | -- | -- | 1 |
| 517 | Hilleshög HIL9924 | | 3.78 | 4.81 | 3.68 | 4.09 | -- | -- | -- | -- | 1 |
| 505 | Hilleshög 4302RR | | 3.63 | 4.11 | 4.04 | 3.93 | 4.03 | 4.06 | 4.13 | 4.13 | 7 |
| 542 | Hilleshög 4448RR | | 5.46 | 4.83 | 5.54 | 5.28 | 5.24 | 5.26 | 5.21 | 5.29 | 6 |
| 531 | Hilleshög 9528RR | | 5.13 | 5.01 | 4.83 | 4.99 | 4.86 | 4.96 | 4.73 | 5.16 | 5 |
| 556 | Maribo 109 | | 3.96 | 4.49 | 3.96 | 4.14 | 4.14 | 4.28 | 4.14 | 4.56 | 4 |
| 539 | Maribo 305 | | 4.77 | 5.39 | 4.77 | 4.98 | 4.85 | 4.82 | 4.72 | 4.76 | 5 |

Table 31. 2017 Cercospora Ratings for ACSC Official Trial Entries
Betaseed (Randolph MN), BSDF (Frankenmuth MI) & NDSU (Foxhome MN)

| Chk @ | Code | Variety | Adjusted to 1982 Basis @ | | | | | | | | Trial Yrs |
|----------|------|----------------------|--------------------------|----------|----------|-------|-------|-------|-------|-------|--------------|
| | | | Beta | BSDF | Foxhome | 2017 | 2 Yr | 3 Yr | 2016 | 2015 | |
| | | | Avg | Avg | Avg | | | | | | |
| | | | 5 Dates+ | 5 Dates+ | 8 Dates+ | 3 loc | 6 loc | 9 loc | 3 loc | 3 loc | |
| | 526 | Maribo MA502 | 4.98 | 5.30 | 4.76 | 5.01 | 4.90 | 4.95 | 4.79 | 5.04 | 3 |
| | 514 | Maribo MA504 | 5.07 | 5.76 | 5.66 | 5.50 | 5.27 | 5.26 | 5.04 | 5.25 | 3 |
| | 568 | Maribo MA611 | 4.95 | 5.45 | 4.69 | 5.03 | 4.75 | -- | 4.47 | -- | 2 |
| | 574 | Maribo MA717 | 4.65 | 4.84 | 5.05 | 4.85 | -- | -- | -- | -- | 1 |
| | 530 | Maribo MA718 | 4.32 | 4.53 | 4.30 | 4.39 | -- | -- | -- | -- | 1 |
| | 538 | Maribo MA719 | 4.13 | 5.14 | 3.96 | 4.41 | -- | -- | -- | -- | 1 |
| | 564 | SV RR244TT | 5.10 | 4.48 | 4.95 | 4.85 | 4.65 | 4.49 | 4.46 | 4.17 | 4 |
| | 511 | SV RR265 | 5.26 | 5.07 | 5.23 | 5.19 | 5.09 | -- | 5.00 | -- | 2 |
| | 555 | SV RR266 | 4.35 | 5.01 | 4.48 | 4.61 | 4.67 | -- | 4.74 | -- | 2 |
| | 572 | SV RR268 | 5.27 | 4.80 | 5.13 | 5.06 | 5.10 | -- | 5.13 | -- | 2 |
| | 541 | SV RR333 | 4.65 | 5.07 | 4.79 | 4.84 | 4.84 | 4.74 | 4.85 | 4.54 | 5 |
| | 573 | SV RR351 | 4.16 | 4.63 | 4.44 | 4.41 | 4.46 | 4.51 | 4.50 | 4.62 | 3 |
| | 515 | SV RR371 | 3.73 | 5.25 | 4.79 | 4.59 | -- | -- | -- | -- | 1 |
| | 501 | SV RR372 | 3.94 | 4.41 | 4.32 | 4.23 | -- | -- | -- | -- | 1 |
| | 508 | SV RR373 | 3.83 | 4.65 | 4.45 | 4.31 | -- | -- | -- | -- | 1 |
| | 578 | SV RR374 | 4.59 | 4.89 | 4.65 | 4.71 | -- | -- | -- | -- | 1 |
| | 546 | SV RR375 | 5.10 | 5.21 | 4.91 | 5.08 | -- | -- | -- | -- | 1 |
| | 537 | SX Avalanche RR(858) | 4.58 | 4.54 | 4.79 | 4.64 | 4.69 | 4.51 | 4.74 | 4.15 | 3 |
| | 548 | SX Canyon RR | 4.22 | 5.84 | 4.69 | 4.92 | 4.84 | 4.56 | 4.76 | 4.02 | 4 |
| | 535 | SX Cruze RR | 5.82 | 5.41 | 4.87 | 5.37 | 5.01 | 4.87 | 4.65 | 4.57 | 4 |
| | 519 | SX Marathon RR(856) | 4.05 | 4.90 | 4.67 | 4.54 | 4.49 | 4.78 | 4.44 | 5.37 | 3 |
| | 558 | SX RR1861 | 4.40 | 4.88 | 4.95 | 4.74 | 4.63 | -- | 4.52 | -- | 2 |
| | 527 | SX RR1863 | 3.52 | 4.25 | 4.47 | 4.08 | 4.21 | -- | 4.35 | -- | 2 |
| | 516 | SX RR1875 | 3.19 | 4.96 | 4.04 | 4.06 | -- | -- | -- | -- | 1 |
| | 520 | SX RR1876 | 4.36 | 4.41 | 4.15 | 4.31 | -- | -- | -- | -- | 1 |
| | 569 | SX RR1877 | 4.56 | 5.21 | 4.08 | 4.62 | -- | -- | -- | -- | 1 |
| | 552 | SX RR1878 | 4.54 | 4.97 | 4.61 | 4.71 | -- | -- | -- | -- | 1 |
| | 524 | SX RR1879 | 4.53 | 5.23 | 4.87 | 4.88 | -- | -- | -- | -- | 1 |
| | 575 | SX Winchester RR | 3.42 | 4.75 | 4.03 | 4.07 | 4.02 | 3.90 | 3.97 | 3.67 | 5 |
| 1 | 1101 | CR CK-19 CRY5539RR | 5.98 | 4.89 | 5.59 | 5.49 | 5.39 | 5.37 | 5.30 | 5.31 | 13 |
| 1 | 1102 | CR CK-24 HILL4012RR | 5.06 | 4.87 | 5.47 | 5.13 | 5.22 | 5.23 | 5.31 | 5.24 | 12 |
| 1 | 1103 | CR CK-28 HILL4010RR | 5.24 | 6.15 | 4.94 | 5.44 | 5.44 | 5.36 | 5.43 | 5.20 | 12 |
| 1 | 1104 | CR CK-33 HILL4043RR | 5.33 | 5.18 | 5.13 | 5.21 | 4.97 | 5.01 | 4.73 | 5.09 | 11 |
| 1 | 1105 | CR CK-34 HILL4000RR | 4.92 | 5.12 | 4.95 | 5.00 | 4.88 | 4.80 | 4.77 | 4.64 | 11 |
| 1 | 1106 | CR CK-41 CRY5981RR | 5.30 | 4.56 | 4.84 | 4.90 | 4.89 | 4.97 | 4.89 | 5.12 | 9 |
| 1 | 1107 | CR CK-42 CRY5985RR | 3.24 | 4.44 | 4.06 | 3.91 | 4.07 | 4.20 | 4.23 | 4.45 | 9 |
| 1 | 1108 | CR CK-43 CRY5246RR | 4.70 | 4.95 | 4.67 | 4.77 | 4.77 | 4.68 | 4.77 | 4.49 | 6 |
| 1 | 1109 | CR CK-44 BETA80RR32 | 5.51 | 4.42 | 4.88 | 4.94 | 4.99 | 4.97 | 5.04 | 4.92 | 8 |
| 1 | 1110 | CR CK-45 HILL4448RR | 5.03 | 5.34 | 5.34 | 5.24 | 5.12 | 5.18 | 5.00 | 5.29 | 6 |
| 1 | 1111 | CR CK-46 HILL4062RR | 3.90 | 4.25 | 4.18 | 4.11 | 4.24 | 4.29 | 4.37 | 4.39 | 10 |
| 1 | 1112 | CR CK-47 HILL4094RR | 4.25 | 4.29 | 4.40 | 4.31 | 4.30 | 4.30 | 4.28 | 4.30 | 10 |
| | 1113 | CR CK MOD SUS HYB#3 | 5.64 | 4.80 | 5.53 | 5.32 | 5.33 | 5.24 | 5.33 | 5.05 | 13 |
| | 1114 | CR CK MOD SUS HYB#3 | 5.58 | 5.26 | 5.61 | 5.49 | 5.41 | 5.29 | 5.33 | 5.05 | 13 |
| | 1115 | CR CK MOD RES HYB#4 | 3.23 | 4.95 | 4.71 | 4.30 | 4.27 | 4.35 | 4.24 | 4.52 | 10 |
| | 1116 | CR CK MOD RES HYB#4 | 3.35 | 4.54 | 4.51 | 4.13 | 4.19 | 4.30 | 4.24 | 4.52 | 10 |
| | 1117 | CR CK MOD SUS HYB#5 | 4.76 | 5.13 | 5.45 | 5.11 | 5.04 | 5.10 | 4.97 | 5.21 | 11 |
| | | Conventional | | | | | | | | | |
| | 919 | BETA EXP 687 | 3.58 | 4.05 | 4.35 | 3.99 | 4.07 | -- | 4.14 | -- | 2 |
| | 918 | BETA EXP 698 | 4.52 | 3.87 | 4.14 | 4.18 | 4.23 | -- | 4.27 | -- | 2 |

Table 31. 2017 Cercospora Ratings for ACSC Official Trial Entries
Betaseed (Randolph MN), BSDF (Frankenmuth MI) & NDSU (Foxhome MN)

| Chk @ | Code | Variety | Adjusted to 1982 Basis @ | | | | | | | Trial Yrs | |
|----------|---------------------|---------|--------------------------|-------------|----------------|-------|-------|-------|-------|--------------|------|
| | | | Beta Avg | BSDF Avg | Foxhome Avg | 2017 | 2 Yr | 3 Yr | 2016 | | 2015 |
| | | | 5 Dates+ | 5 Dates+ | 8 Dates+ | 3 loc | 6 loc | 9 loc | 3 loc | 3 loc | |
| 905 | BETA EXP 747 | | 3.96 | 4.36 | 4.88 | 4.40 | -- | -- | -- | -- | 1 |
| 909 | BETA EXP 758 | | 4.39 | 4.44 | 4.74 | 4.52 | -- | -- | -- | -- | 1 |
| 901 | Crystal 620 | | 4.20 | 3.87 | 4.34 | 4.14 | 4.17 | -- | 4.19 | -- | 2 |
| 906 | Crystal 622 | | 2.88 | 3.93 | 4.34 | 3.72 | 3.84 | -- | 3.96 | -- | 2 |
| 913 | Crystal 735 | | 4.52 | 4.04 | 4.76 | 4.44 | -- | -- | -- | -- | 1 |
| 910 | Crystal 737 | | 3.46 | 3.77 | 4.55 | 3.92 | -- | -- | -- | -- | 1 |
| 902 | Crystal R761 | | 5.23 | 4.40 | 5.16 | 4.93 | 4.96 | -- | 4.99 | -- | 11 |
| 914 | Hilleshög 3035Rz | | 4.12 | 4.23 | 4.93 | 4.42 | 4.47 | -- | 4.53 | -- | 13 |
| 917 | Hilleshög 9891Rz | | 3.76 | 3.90 | 4.73 | 4.13 | 4.27 | -- | 4.42 | -- | 2 |
| 904 | Maribo MA615Rz | | 4.92 | 4.71 | 4.80 | 4.81 | 4.92 | -- | 5.04 | -- | 2 |
| 916 | Maribo MA720Rz | | 5.03 | 3.80 | 4.80 | 4.54 | -- | -- | -- | -- | 1 |
| 911 | Seedex 8869 | | 5.63 | 4.33 | 5.67 | 5.21 | 4.99 | -- | 4.76 | -- | 2 |
| 907 | Seedex Deuce | | 4.60 | 4.48 | 5.20 | 4.76 | 4.72 | -- | 4.68 | -- | 10 |
| 912 | Strube 12720 | | 5.58 | 5.11 | 6.26 | 5.65 | -- | -- | -- | -- | 1 |
| 908 | Strube 13722 | | 3.79 | 3.57 | 4.80 | 4.06 | -- | -- | -- | -- | 1 |
| 903 | SV 48611 | | 5.95 | 4.30 | 5.59 | 5.28 | 5.06 | -- | 4.85 | -- | 2 |
| 915 | SV 48777 | | 4.32 | 4.43 | 5.54 | 4.76 | -- | -- | -- | -- | 1 |
| 1101 | CR CK-19 CRY539RR | | 5.98 | 5.32 | 5.53 | 5.61 | 5.45 | 5.41 | 5.30 | 5.31 | 13 |
| 1106 | CR CK-41 CRY5981RR | | 5.30 | 4.72 | 5.39 | 5.14 | 5.01 | 5.05 | 4.89 | 5.12 | 9 |
| 1107 | CR CK-42 CRY5985RR | | 3.24 | 3.98 | 5.11 | 4.11 | 4.17 | 4.27 | 4.23 | 4.45 | 9 |
| 1109 | CR CK-44 BETA80RR32 | | 5.51 | 4.26 | 4.92 | 4.90 | 4.97 | 4.95 | 5.04 | 4.92 | 8 |
| 1110 | CR CK-45 HILL4448RR | | 5.03 | 5.38 | 5.39 | 5.27 | 5.13 | 5.19 | 5.00 | 5.29 | 6 |
| 12 | Check Mean | | 4.77 | 4.89 | 4.96 | 4.87 | | | | | |
| | Trial Mean | | 4.38 | 4.80 | 4.54 | 4.57 | | | | | |
| | Coeff. of Var. (%) | | 10.15 | 9.25 | 5.97 | | | | | | |
| | Mean LSD (0.05) | | 0.55 | 0.59 | 0.32 | | | | | | |
| | Mean LSD (0.01) | | 0.73 | 0.79 | 0.43 | | | | | | |
| | Sig Mrk | | ** | ** | ** | | | | | | |
| | Adj Factor | | 1.20 | 1.16 | 1.01 | | | | | | |

Lower numbers indicate better Cercospora resistance (1-Ex,9=Poor).

@ Ratings adjusted to 1982 basis (5.5 equivalent in 1978-81 CR nurseries). Adjustment based on check varieties.

Chk = varieties used to adjust CR readings to 1982 basis. Ratings * (Adj. factor) = Adj Rating.

+ Average rating based upon multiple rating dates.

Created 11/3/2017

Tabel 32. 2017 Rhizoctonia Ratings for ACSC Official Trial Entries
Rhizoctonia Nursery - BSDF, NWROC & Two ACSC Sites

| Sus Chk Chk ^ @ | Code | Variety | Adjusted @ | | | | | Trial Yrs | |
|-----------------------|------|-------------------|--------------|-------|-------|-------|-------|--------------|------|
| | | | BSDF 8/24 | 2017 | 2 Yr | 3 Yr | 2016 | | 2015 |
| | | | | 1 loc | 5 loc | 9 loc | 4 loc | 4 loc | |
| | 529 | BTS 80RR52 | 4.14 | 4.14 | 4.27 | 4.17 | 4.41 | 3.95 | 8 |
| | 545 | BTS 8337 | 4.30 | 4.30 | 4.19 | 4.08 | 4.08 | 3.87 | 5 |
| | 562 | BTS 8363 | 4.85 | 4.85 | 4.59 | 4.44 | 4.34 | 4.12 | 5 |
| | 513 | BTS 8500 | 4.57 | 4.57 | 4.50 | 4.40 | 4.43 | 4.19 | 3 |
| | 533 | BTS 8512 | 4.28 | 4.28 | 4.36 | 4.33 | 4.44 | 4.28 | 3 |
| | 550 | BTS 8524 | 4.41 | 4.41 | 4.31 | 4.25 | 4.20 | 4.14 | 3 |
| | 570 | BTS 8572 | 4.32 | 4.32 | 4.43 | 4.24 | 4.54 | 3.85 | 3 |
| | 509 | BTS 8606 | 5.00 | 5.00 | 4.74 | -- | 4.48 | -- | 2 |
| | 525 | BTS 8629 | 4.21 | 4.21 | 3.97 | -- | 3.73 | -- | 2 |
| | 577 | BTS 8735 | 4.38 | 4.38 | -- | -- | -- | -- | 1 |
| | 506 | BTS 8742 | 4.23 | 4.23 | -- | -- | -- | -- | 1 |
| | 536 | BTS 8749 | 3.95 | 3.95 | -- | -- | -- | -- | 1 |
| | 540 | BTS 8756 | 4.34 | 4.34 | -- | -- | -- | -- | 1 |
| | 521 | BTS 8767 | 4.75 | 4.75 | -- | -- | -- | -- | 1 |
| | 518 | BTS 8770 | 4.57 | 4.57 | -- | -- | -- | -- | 1 |
| | 567 | BTS 8784 | 4.64 | 4.64 | -- | -- | -- | -- | 1 |
| | 502 | BTS 8787 | 4.31 | 4.31 | -- | -- | -- | -- | 1 |
| | 512 | BTS 8798 | 4.52 | 4.52 | -- | -- | -- | -- | 1 |
| | 549 | Crystal 093RR | 4.50 | 4.50 | 4.44 | 4.28 | 4.37 | 3.96 | 8 |
| | 551 | Crystal 101RR | 4.78 | 4.78 | 4.78 | 4.73 | 4.78 | 4.64 | 7 |
| | 507 | Crystal 246RR | 4.23 | 4.23 | 4.28 | 4.25 | 4.32 | 4.19 | 6 |
| | 560 | Crystal 247RR | 4.49 | 4.49 | 4.40 | 4.38 | 4.32 | 4.33 | 6 |
| | 565 | Crystal 355RR | 4.09 | 4.09 | 4.02 | -- | 3.96 | -- | 5 |
| | 523 | Crystal 467RR | 4.47 | 4.47 | 4.37 | 4.23 | 4.26 | 3.97 | 4 |
| | 503 | Crystal 572RR | 4.47 | 4.47 | 4.34 | 4.19 | 4.21 | 3.89 | 3 |
| | 554 | Crystal 573RR | 4.57 | 4.57 | 4.56 | 4.45 | 4.55 | 4.25 | 3 |
| | 544 | Crystal 574RR | 4.16 | 4.16 | 4.31 | 4.26 | 4.47 | 4.16 | 3 |
| | 571 | Crystal 578RR | 4.40 | 4.40 | 4.36 | 4.25 | 4.32 | 4.03 | 3 |
| | 510 | Crystal 684RR | 4.57 | 4.57 | 4.49 | -- | 4.41 | -- | 2 |
| | 547 | Crystal 792RR | 3.88 | 3.88 | -- | -- | -- | -- | 1 |
| | 557 | Crystal 793RR | 4.26 | 4.26 | -- | -- | -- | -- | 1 |
| | 534 | Crystal 794RR | 4.15 | 4.15 | -- | -- | -- | -- | 1 |
| | 522 | Crystal 795RR | 3.94 | 3.94 | -- | -- | -- | -- | 1 |
| | 553 | Crystal 796RR | 4.23 | 4.23 | -- | -- | -- | -- | 1 |
| | 528 | Crystal 797RR | 4.26 | 4.26 | -- | -- | -- | -- | 1 |
| | 532 | Crystal 986RR | 4.39 | 4.39 | 4.38 | 4.28 | 4.38 | 4.06 | 9 |
| | 559 | Hilleshög HIL9707 | 4.43 | 4.43 | 4.41 | 4.35 | 4.40 | 4.21 | 3 |
| | 576 | Hilleshög HIL9708 | 4.21 | 4.21 | 4.25 | 4.18 | 4.28 | 4.04 | 3 |
| | 561 | Hilleshög HIL9895 | 4.34 | 4.34 | 4.45 | -- | 4.56 | -- | 2 |
| | 566 | Hilleshög HIL9920 | 4.48 | 4.48 | -- | -- | -- | -- | 1 |
| | 563 | Hilleshög HIL9921 | 3.85 | 3.85 | -- | -- | -- | -- | 1 |
| | 504 | Hilleshög HIL9922 | 4.39 | 4.39 | -- | -- | -- | -- | 1 |
| | 543 | Hilleshög HIL9923 | 4.58 | 4.58 | -- | -- | -- | -- | 1 |
| | 517 | Hilleshög HIL9924 | 4.62 | 4.62 | -- | -- | -- | -- | 1 |
| | 505 | Hilleshög 4302RR | 3.60 | 3.60 | 3.63 | 3.65 | 3.65 | 3.70 | 7 |
| | 542 | Hilleshög 4448RR | 4.63 | 4.63 | 4.57 | 4.35 | 4.51 | 3.92 | 6 |
| | 531 | Hilleshög 9528RR | 4.21 | 4.21 | 4.21 | 4.18 | 4.21 | 4.10 | 5 |
| | 556 | Maribo 109 | 3.63 | 3.63 | 3.66 | 3.66 | 3.69 | 3.67 | 4 |
| | 539 | Maribo 305 | 4.60 | 4.60 | 4.50 | 4.28 | 4.40 | 3.83 | 5 |
| | 526 | Maribo MA502 | 4.78 | 4.78 | 4.76 | 4.55 | 4.73 | 4.14 | 3 |

Tabel 32. 2017 Rhizoctonia Ratings for ACSC Official Trial Entries
Rhizoctonia Nursery - BSDF, NWROC & Two ACSC Sites

| Sus Chk Chk ^ @ | Code | Variety | Adjusted @ | | | | | Trial Yrs | |
|-----------------------|------|----------------------|--------------|-------|-------|-------|-------|--------------|------|
| | | | BSDF 8/24 | 2017 | 2 Yr | 3 Yr | 2016 | | 2015 |
| | | | | 1 loc | 5 loc | 9 loc | 4 loc | 4 loc | |
| | 514 | Maribo MA504 | 4.37 | 4.37 | 4.47 | 4.31 | 4.58 | 3.98 | 3 |
| | 568 | Maribo MA611 | 4.44 | 4.44 | 4.53 | -- | 4.63 | -- | 2 |
| | 574 | Maribo MA717 | 4.28 | 4.28 | -- | -- | -- | -- | 1 |
| | 530 | Maribo MA718 | 4.13 | 4.13 | -- | -- | -- | -- | 1 |
| | 538 | Maribo MA719 | 4.28 | 4.28 | -- | -- | -- | -- | 1 |
| | 564 | SV RR244TT | 4.50 | 4.50 | 4.48 | 4.38 | 4.45 | 4.18 | 4 |
| | 511 | SV RR265 | 4.42 | 4.42 | 4.43 | -- | 4.44 | -- | 2 |
| | 555 | SV RR266 | 4.39 | 4.39 | 4.30 | -- | 4.20 | -- | 2 |
| | 572 | SV RR268 | 4.57 | 4.57 | 4.63 | -- | 4.70 | -- | 2 |
| | 541 | SV RR333 | 4.44 | 4.44 | 4.44 | 4.33 | 4.44 | 4.11 | 5 |
| | 573 | SV RR351 | 4.25 | 4.25 | 4.21 | -- | 4.17 | -- | 3 |
| | 515 | SV RR371 | 4.31 | 4.31 | -- | -- | -- | -- | 1 |
| | 501 | SV RR372 | 4.47 | 4.47 | -- | -- | -- | -- | 1 |
| | 508 | SV RR373 | 4.38 | 4.38 | -- | -- | -- | -- | 1 |
| | 578 | SV RR374 | 4.30 | 4.30 | -- | -- | -- | -- | 1 |
| | 546 | SV RR375 | 4.25 | 4.25 | -- | -- | -- | -- | 1 |
| | 537 | SX Avalanche RR(858) | 4.29 | 4.29 | 4.40 | 4.34 | 4.52 | 4.21 | 3 |
| | 548 | SX Canyon RR | 4.51 | 4.51 | 4.45 | 4.38 | 4.40 | 4.22 | 4 |
| | 535 | SX Cruze RR | 4.39 | 4.39 | 4.54 | 4.42 | 4.69 | 4.18 | 4 |
| | 519 | SX Marathon RR(856) | 4.40 | 4.40 | 4.43 | 4.34 | 4.47 | 4.16 | 3 |
| | 558 | SX RR1861 | 4.50 | 4.50 | 4.55 | -- | 4.59 | -- | 2 |
| | 527 | SX RR1863 | 4.23 | 4.23 | 4.39 | -- | 4.54 | -- | 2 |
| | 516 | SX RR1875 | 4.34 | 4.34 | -- | -- | -- | -- | 1 |
| | 520 | SX RR1876 | 4.42 | 4.42 | -- | -- | -- | -- | 1 |
| | 569 | SX RR1877 | 4.42 | 4.42 | -- | -- | -- | -- | 1 |
| | 552 | SX RR1878 | 4.31 | 4.31 | -- | -- | -- | -- | 1 |
| | 524 | SX RR1879 | 4.36 | 4.36 | -- | -- | -- | -- | 1 |
| | 575 | SX Winchester RR | 4.47 | 4.47 | 4.55 | 4.46 | 4.63 | 4.28 | 5 |
| 1 1 | 1301 | RH CK#08 CRY5539RR | 4.74 | 4.74 | 4.79 | 4.74 | 4.84 | 4.65 | 9 |
| 1 1 | 1302 | RH CK#20 CRY5765RR | 4.31 | 4.31 | 4.33 | 4.29 | 4.35 | 4.22 | 9 |
| 1 1 | 1303 | RH CK#21 CRY5768RR | 4.66 | 4.66 | 4.49 | 4.41 | 4.32 | 4.25 | 9 |
| 1 1 | 1304 | RH CK#25 HILL4043RR | 4.51 | 4.51 | 4.63 | 4.54 | 4.76 | 4.35 | 9 |
| 1 1 | 1305 | RH CK#28 CRY5658RR | 4.36 | 4.36 | 4.46 | 4.34 | 4.57 | 4.09 | 12 |
| 1 1 | 1306 | RH CK#29 BETA87RR58 | 4.79 | 4.79 | 4.73 | 4.75 | 4.67 | 4.77 | 11 |
| 1 1 | 1307 | RH CK#31 HILL4000RR | 4.65 | 4.65 | 4.72 | 4.83 | 4.80 | 5.03 | 11 |
| 1 1 | 1308 | RH CK#35 SES36812RR | 4.71 | 4.71 | 4.63 | 4.54 | 4.55 | 4.37 | 10 |
| 1 1 | 1309 | RH CK#36 BETA85RR02 | 4.10 | 4.10 | 4.28 | 4.42 | 4.45 | 4.71 | 13 |
| 1 1 | 1310 | RH CK#37 SES36918RR | 4.43 | 4.43 | 4.55 | 4.48 | 4.67 | 4.34 | 9 |
| 1 1 | 1311 | RH CK#40 CRY5101RR | 4.55 | 4.55 | 4.60 | 4.58 | 4.65 | 4.55 | 7 |
| 1 1 | 1312 | RH CK#45 BTS82RR33 | 4.73 | 4.73 | 4.46 | 4.37 | 4.19 | 4.18 | 6 |
| 1 1 | 1313 | RH CK#47 SES36272RR | 4.62 | 4.62 | 4.56 | 4.50 | 4.50 | 4.39 | 6 |
| 1 1 | 1314 | RH CK#48 HILL4094RR | 3.80 | 3.80 | 3.85 | 3.71 | 3.90 | 3.44 | 10 |
| 1 1 | 1315 | RH CK#49 CRY5247RR | 4.65 | 4.65 | 4.51 | 4.45 | 4.38 | 4.33 | 6 |
| | 1316 | RES RHC #1 | 3.62 | 3.62 | 3.73 | 3.64 | 3.83 | 3.47 | 12 |
| | 1317 | MOD RHC #6 | 4.68 | 4.68 | 4.50 | 4.36 | 4.32 | 4.09 | 12 |
| | 1318 | SUS RHC #3 | 4.32 | 4.32 | 4.51 | 4.57 | 4.70 | 4.69 | 13 |
| | 1319 | SUS RHC #9 | 4.43 | 4.43 | 4.54 | 4.47 | 4.65 | 4.34 | 9 |
| | 1320 | MOD RHC #5 | 4.34 | 4.34 | 4.53 | 4.44 | 4.71 | 4.27 | 12 |
| | 1321 | RES RHC #2 | 3.65 | 3.65 | 3.83 | 3.78 | 4.01 | 3.68 | 10 |
| | 1322 | SUS RHC #3 | 4.95 | 4.95 | 4.85 | 4.79 | 4.74 | 4.69 | 13 |

Tabel 32. 2017 Rhizoctonia Ratings for ACSC Official Trial Entries
Rhizoctonia Nursery - BSDF, NWROC & Two ACSC Sites

| Sus Chk Chk ^ @ | Code | Variety | Adjusted @ | | | | | Trial Yrs | |
|-----------------------|------|-------------------------------------|--------------|-------|-------|-------|-------|--------------|------|
| | | | BSDF 8/24 | 2017 | 2 Yr | 3 Yr | 2016 | | 2015 |
| | | | | 1 loc | 5 loc | 9 loc | 4 loc | 4 loc | |
| | 1323 | SUS RHC #9 | 4.51 | 4.51 | 4.54 | 4.47 | 4.57 | 4.34 | 9 |
| | 1324 | SUS RHC #10 | 4.28 | 4.28 | 4.51 | 4.60 | 4.75 | 4.77 | 9 |
| | | Conventional | | | | | | | |
| | 919 | BETA EXP 687 | 4.20 | 4.20 | 4.18 | -- | 4.16 | -- | 2 |
| | 918 | BETA EXP 698 | 4.45 | 4.45 | 4.40 | -- | 4.35 | -- | 2 |
| | 905 | BETA EXP 747 | 3.93 | 3.93 | -- | -- | -- | -- | 1 |
| | 909 | BETA EXP 758 | 4.31 | 4.31 | -- | -- | -- | -- | 1 |
| | 901 | Crystal 620 | 4.37 | 4.37 | 4.45 | -- | 4.54 | -- | 2 |
| | 906 | Crystal 622 | 4.49 | 4.49 | 4.31 | -- | 4.14 | -- | 2 |
| | 913 | Crystal 735 | 4.61 | 4.61 | -- | -- | -- | -- | 1 |
| | 910 | Crystal 737 | 4.25 | 4.25 | -- | -- | -- | -- | 1 |
| | 902 | Crystal R761 | 4.54 | 4.54 | 4.55 | -- | 4.57 | -- | 11 |
| | 914 | Hilleshög 3035Rz | 4.07 | 4.07 | 4.00 | -- | 3.93 | -- | 13 |
| | 917 | Hilleshög 9891Rz | 4.46 | 4.46 | 4.34 | -- | 4.22 | -- | 2 |
| | 904 | Maribo MA615Rz | 4.73 | 4.73 | 4.63 | -- | 4.54 | -- | 2 |
| | 916 | Maribo MA720Rz | 4.55 | 4.55 | -- | -- | -- | -- | 1 |
| | 911 | Seedex 8869 | 4.40 | 4.40 | 4.53 | -- | 4.67 | -- | 2 |
| | 907 | Seedex Deuce | 4.39 | 4.39 | 4.52 | -- | 4.66 | -- | 10 |
| | 912 | Strube 12720 | 4.59 | 4.59 | -- | -- | -- | -- | 1 |
| | 908 | Strube 13722 | 4.73 | 4.73 | -- | -- | -- | -- | 1 |
| | 903 | SV 48611 | 4.35 | 4.35 | 4.50 | -- | 4.66 | -- | 2 |
| | 915 | SV 48777 | 4.59 | 4.59 | -- | -- | -- | -- | 1 |
| | 1301 | RH CK#08 CRY5539RR | 4.74 | 4.74 | 4.79 | 4.74 | 4.84 | 4.65 | 9 |
| | 1303 | RH CK#21 CRY5768RR | 4.66 | 4.66 | 4.49 | 4.41 | 4.32 | 4.25 | 9 |
| | 1311 | RH CK#40 CRY5101RR | 4.55 | 4.55 | 4.60 | 4.58 | 4.65 | 4.55 | 7 |
| | 1314 | RH CK#48 HILL4094RR | 3.80 | 3.80 | 3.85 | 3.71 | 3.90 | 3.44 | 10 |
| | 1315 | RH CK#49 CRY5247RR | 4.65 | 4.65 | 4.51 | 4.45 | 4.38 | 4.33 | 6 |
| 15 | | Mean of Check Varieties | 4.51 | 4.51 | 4.51 | 4.46 | 4.51 | 4.38 | |
| 10 | | Mean of Susc Checks | 4.60 | 4.60 | 4.62 | 4.58 | 4.64 | 4.49 | |
| | | Trial Mean | 4.38 | | | | | | |
| | | Coeff. of Var. (%) | 7.0 | | | | | | |
| | | Mean LSD (0.05) | 0.43 | | | | | | |
| | | Mean LSD (0.01) | 0.56 | | | | | | |
| | | Sig Lvl | ** | | | | | | |
| | | Adjustment Factor | 0.72 | | | | | | |
| | | Approval Limit (80% of susc checks) | 5.08 | 3.68 | 3.70 | 3.66 | 3.71 | 3.59 | |

@ Adjustment is based upon check varieties.

Lower numbers indicate better tolerance (0=Ex, 7=Poor).

^ Approval criteria is based upon mean of 10 susc varieties (approval option 1) or 3.82 (approval option 2).

Created 11/3/2017

Table 33. 2017 Fusarium Ratings for ACSC Official Trial Entries
Two Moorhead, MN Sites

| Chk @ | Code | Variety | Adjusted @ | | | | | | Trial Yrs | |
|----------|-------------------|---------|-------------------|-------------------|---------------|---------------|---------------|---------------|--------------|---------------|
| | | | N Mhd 4 Dates+ | S Mhd 4 Dates+ | 2017 2 loc | 2 Yr 4 loc | 3 Yr 6 loc | 2016 2 loc | | 2015 2 loc |
| 529 | BTS 80RR52 | | 2.61 | 2.77 | 2.69 | 2.75 | 2.77 | 2.81 | 2.83 | 8 |
| 545 | BTS 8337 | | 3.76 | 3.90 | 3.83 | 3.92 | 3.85 | 4.01 | 3.72 | 5 |
| 562 | BTS 8363 | | 3.45 | 3.54 | 3.49 | 3.30 | 3.15 | 3.11 | 2.85 | 5 |
| 513 | BTS 8500 | | 1.79 | 2.48 | 2.14 | 2.02 | 2.15 | 1.90 | 2.41 | 3 |
| 533 | BTS 8512 | | 2.89 | 3.02 | 2.96 | 2.83 | 2.79 | 2.71 | 2.70 | 3 |
| 550 | BTS 8524 | | 3.21 | 3.28 | 3.24 | 3.31 | 3.17 | 3.38 | 2.88 | 3 |
| 570 | BTS 8572 | | 2.07 | 3.02 | 2.54 | 2.39 | 2.44 | 2.23 | 2.54 | 3 |
| 509 | BTS 8606 | | 2.49 | 3.14 | 2.81 | 2.75 | -- | 2.69 | -- | 2 |
| 525 | BTS 8629 | | 4.15 | 4.26 | 4.20 | 4.12 | -- | 4.04 | -- | 2 |
| 577 | BTS 8735 | | 4.00 | 3.86 | 3.93 | -- | -- | -- | -- | 1 |
| 506 | BTS 8742 | | 2.21 | 2.98 | 2.59 | -- | -- | -- | -- | 1 |
| 536 | BTS 8749 | | 2.95 | 3.61 | 3.28 | -- | -- | -- | -- | 1 |
| 540 | BTS 8756 | | 2.36 | 2.99 | 2.67 | -- | -- | -- | -- | 1 |
| 521 | BTS 8767 | | 2.65 | 2.78 | 2.71 | -- | -- | -- | -- | 1 |
| 518 | BTS 8770 | | 2.39 | 3.24 | 2.82 | -- | -- | -- | -- | 1 |
| 567 | BTS 8784 | | 2.21 | 3.05 | 2.63 | -- | -- | -- | -- | 1 |
| 502 | BTS 8787 | | 1.98 | 3.02 | 2.50 | -- | -- | -- | -- | 1 |
| 512 | BTS 8798 | | 3.17 | 3.56 | 3.37 | -- | -- | -- | -- | 1 |
| 549 | Crystal 093RR | | 3.22 | 3.74 | 3.48 | 3.42 | 3.35 | 3.35 | 3.22 | 8 |
| 551 | Crystal 101RR | | 2.14 | 3.31 | 2.72 | 2.56 | 2.59 | 2.40 | 2.64 | 7 |
| 507 | Crystal 246RR | | 3.10 | 3.38 | 3.24 | 3.17 | 3.11 | 3.10 | 3.00 | 6 |
| 560 | Crystal 247RR | | 2.97 | 3.02 | 3.00 | 2.90 | 2.77 | 2.80 | 2.51 | 6 |
| 565 | Crystal 355RR | | 2.58 | 2.94 | 2.76 | 2.71 | NE | 2.65 | NE | 5 |
| 523 | Crystal 467RR | | 1.75 | 2.21 | 1.98 | 1.91 | 2.09 | 1.84 | 2.46 | 4 |
| 503 | Crystal 572RR | | 2.33 | 2.95 | 2.64 | 2.23 | 2.27 | 1.82 | 2.36 | 3 |
| 554 | Crystal 573RR | | 3.05 | 3.16 | 3.10 | 3.29 | 3.20 | 3.49 | 3.02 | 3 |
| 544 | Crystal 574RR | | 1.87 | 2.59 | 2.23 | 2.02 | 2.02 | 1.82 | 2.00 | 3 |
| 571 | Crystal 578RR | | 2.15 | 2.66 | 2.41 | 2.20 | 2.27 | 1.99 | 2.42 | 3 |
| 510 | Crystal 684RR | | 1.73 | 2.30 | 2.01 | 1.89 | -- | 1.76 | -- | 2 |
| 547 | Crystal 792RR | | 2.70 | 2.93 | 2.81 | -- | -- | -- | -- | 1 |
| 557 | Crystal 793RR | | 2.72 | 3.18 | 2.95 | -- | -- | -- | -- | 1 |
| 534 | Crystal 794RR | | 2.09 | 2.80 | 2.45 | -- | -- | -- | -- | 1 |
| 522 | Crystal 795RR | | 2.39 | 2.93 | 2.66 | -- | -- | -- | -- | 1 |
| 553 | Crystal 796RR | | 2.06 | 2.62 | 2.34 | -- | -- | -- | -- | 1 |
| 528 | Crystal 797RR | | 3.12 | 3.24 | 3.18 | -- | -- | -- | -- | 1 |
| 532 | Crystal 986RR | | 4.73 | 4.73 | 4.73 | 4.79 | 4.49 | 4.86 | 3.89 | 9 |
| 559 | Hilleshög HIL9707 | | 4.13 | 4.06 | 4.09 | 4.49 | 4.22 | 4.88 | 3.68 | 3 |
| 576 | Hilleshög HIL9708 | | 4.82 | 4.40 | 4.61 | 4.45 | 4.20 | 4.29 | 3.69 | 3 |
| 561 | Hilleshög HIL9895 | | 3.93 | 4.36 | 4.15 | 3.27 | -- | 2.40 | -- | 2 |
| 566 | Hilleshög HIL9920 | | 6.01 | 5.84 | 5.92 | -- | -- | -- | -- | 1 |
| 563 | Hilleshög HIL9921 | | 4.72 | 4.60 | 4.66 | -- | -- | -- | -- | 1 |
| 504 | Hilleshög HIL9922 | | 4.58 | 4.40 | 4.49 | -- | -- | -- | -- | 1 |
| 543 | Hilleshög HIL9923 | | 4.91 | 5.67 | 5.29 | -- | -- | -- | -- | 1 |
| 517 | Hilleshög HIL9924 | | 4.54 | 4.62 | 4.58 | -- | -- | -- | -- | 1 |
| 505 | Hilleshög 4302RR | | 4.99 | 5.19 | 5.09 | 5.09 | 4.74 | 5.09 | 4.05 | 7 |
| 542 | Hilleshög 4448RR | | 5.75 | 4.94 | 5.35 | 5.30 | NE | 5.26 | NE | 6 |
| 531 | Hilleshög 9528RR | | 4.52 | 3.97 | 4.25 | 4.39 | 4.26 | 4.52 | 4.00 | 5 |
| 556 | Maribo 109 | | 4.45 | 4.02 | 4.23 | 4.37 | 4.11 | 4.50 | 3.58 | 4 |
| 539 | Maribo 305 | | 5.91 | 5.86 | 5.89 | 5.89 | 5.60 | 5.89 | 5.02 | 5 |
| 526 | Maribo MA502 | | 2.70 | 3.34 | 3.02 | 2.47 | 2.42 | 1.92 | 2.33 | 3 |
| 514 | Maribo MA504 | | 4.62 | 4.43 | 4.52 | 4.56 | 4.41 | 4.60 | 4.11 | 3 |
| 568 | Maribo MA611 | | 3.58 | 3.97 | 3.78 | 2.87 | -- | 1.96 | -- | 2 |
| 574 | Maribo MA717 | | 5.10 | 4.80 | 4.95 | -- | -- | -- | -- | 1 |

Table 33. 2017 Fusarium Ratings for ACSC Official Trial Entries
Two Moorhead, MN Sites

| Chk @ | Code | Variety | Adjusted @ | | | | | | Trial Yrs | |
|----------|------|----------------------|-------------------|-------------------|---------------|---------------|---------------|---------------|--------------|---------------|
| | | | N Mhd 4 Dates+ | S Mhd 4 Dates+ | 2017 2 loc | 2 Yr 4 loc | 3 Yr 6 loc | 2016 2 loc | | 2015 2 loc |
| | 530 | Maribo MA718 | 4.26 | 4.96 | 4.61 | -- | -- | -- | -- | 1 |
| | 538 | Maribo MA719 | 6.36 | 5.16 | 5.76 | -- | -- | -- | -- | 1 |
| | 564 | SV RR244TT | 3.85 | 3.62 | 3.74 | 3.94 | 3.91 | 4.14 | 3.86 | 4 |
| | 511 | SV RR265 | 5.19 | 5.46 | 5.32 | 5.29 | -- | 5.26 | -- | 2 |
| | 555 | SV RR266 | 6.14 | 5.14 | 5.64 | 5.41 | -- | 5.18 | -- | 2 |
| | 572 | SV RR268 | 5.37 | 4.65 | 5.01 | 5.11 | -- | 5.20 | -- | 2 |
| | 541 | SV RR333 | 5.66 | 5.03 | 5.35 | 5.09 | NE | 4.84 | NE | 5 |
| | 573 | SV RR351 | 5.07 | 4.86 | 4.96 | 4.86 | NE | 4.75 | NE | 3 |
| | 515 | SV RR371 | 4.92 | 4.90 | 4.91 | -- | -- | -- | -- | 1 |
| | 501 | SV RR372 | 4.33 | 4.06 | 4.19 | -- | -- | -- | -- | 1 |
| | 508 | SV RR373 | 5.64 | 4.70 | 5.17 | -- | -- | -- | -- | 1 |
| | 578 | SV RR374 | 4.74 | 4.13 | 4.44 | -- | -- | -- | -- | 1 |
| | 546 | SV RR375 | 5.64 | 5.25 | 5.44 | -- | -- | -- | -- | 1 |
| | 537 | SX Avalanche RR(858) | 5.67 | 5.84 | 5.75 | 5.57 | 5.42 | 5.38 | 5.12 | 3 |
| | 548 | SX Canyon RR | 5.21 | 5.04 | 5.12 | 5.19 | 4.74 | 5.26 | 3.85 | 4 |
| | 535 | SX Cruze RR | 3.98 | 3.97 | 3.98 | 3.39 | NE | 2.80 | NE | 4 |
| | 519 | SX Marathon RR(856) | 5.25 | 4.43 | 4.84 | 4.87 | 4.87 | 4.90 | 4.87 | 3 |
| | 558 | SX RR1861 | 5.07 | 5.02 | 5.05 | 4.90 | -- | 4.75 | -- | 2 |
| | 527 | SX RR1863 | 6.45 | 5.64 | 6.04 | 5.92 | -- | 5.80 | -- | 2 |
| | 516 | SX RR1875 | 3.38 | 3.75 | 3.57 | -- | -- | -- | -- | 1 |
| | 520 | SX RR1876 | 3.74 | 3.96 | 3.85 | -- | -- | -- | -- | 1 |
| | 569 | SX RR1877 | 3.93 | 4.49 | 4.21 | -- | -- | -- | -- | 1 |
| | 552 | SX RR1878 | 5.21 | 4.86 | 5.03 | -- | -- | -- | -- | 1 |
| | 524 | SX RR1879 | 4.76 | 4.52 | 4.64 | -- | -- | -- | -- | 1 |
| | 575 | SX Winchester RR | 4.62 | 4.67 | 4.64 | 4.38 | 4.23 | 4.11 | 3.95 | 5 |
| 1 | 1201 | FS CK #07 CRY5658RR | 2.45 | 3.26 | 2.85 | 2.76 | 2.73 | 2.66 | 2.67 | 12 |
| 1 | 1202 | FS CK #08 HILL4000RR | 6.50 | 6.68 | 6.59 | 6.37 | 6.30 | 6.15 | 6.16 | 11 |
| 1 | 1203 | FS CK #09 HILL4010RR | 6.63 | 6.20 | 6.41 | 6.42 | 6.40 | 6.42 | 6.35 | 12 |
| 1 | 1204 | FS CK #12 HILL4012RR | 6.28 | 5.49 | 5.89 | 6.02 | 6.00 | 6.15 | 5.96 | 12 |
| 1 | 1205 | FS CK #13 HILL4043RR | 6.22 | 6.39 | 6.31 | 6.18 | 6.12 | 6.05 | 6.01 | 11 |
| 1 | 1206 | FS CK #17 CRY5765RR | 3.90 | 4.13 | 4.02 | 4.06 | 4.13 | 4.10 | 4.26 | 9 |
| 1 | 1207 | FS CK #18 CRY5768RR | 4.38 | 4.36 | 4.37 | 4.38 | 4.29 | 4.40 | 4.09 | 9 |
| 1 | 1208 | FS CK #26 BETA87RR68 | 4.64 | 5.45 | 5.05 | 4.78 | 4.70 | 4.51 | 4.53 | 8 |
| 1 | 1209 | FS CK #28 SES36918RR | 5.61 | 4.48 | 5.04 | 5.09 | 5.14 | 5.13 | 5.25 | 9 |
| 1 | 1210 | FS CK #29 CRY5875RR | 4.68 | 4.86 | 4.77 | 4.73 | 4.60 | 4.68 | 4.35 | 10 |
| | 1211 | FS CHK RES RR #1 | 2.73 | 2.73 | 2.73 | 2.55 | 2.62 | 2.37 | 2.77 | 7 |
| | 1212 | FS CHK SUS RR #2 | 6.39 | 6.35 | 6.37 | 6.25 | 6.34 | 6.12 | 6.53 | 7 |
| | 1213 | FS CHK MOD RR RES #2 | 4.55 | 4.15 | 4.35 | 4.26 | 4.22 | 4.17 | 4.14 | 11 |
| | 1214 | FS CHK MOD RR SUS #1 | 4.64 | 4.59 | 4.61 | 4.92 | 4.88 | 5.23 | 4.81 | 11 |
| | 1215 | FS CHK RES RR #2 | 1.97 | 2.82 | 2.40 | 2.22 | 2.20 | 2.04 | 2.15 | 6 |
| | 1216 | FS CHK SUS RR #10 | 5.34 | 5.06 | 5.20 | 5.29 | 5.23 | 5.38 | 5.11 | 4 |
| | 1217 | FS CHK SUS RR #10 | 5.66 | 5.19 | 5.43 | 5.37 | 5.28 | 5.32 | 5.11 | 4 |
| | 1218 | FS CHK SUS RR #11 | 5.74 | 5.48 | 5.61 | 5.75 | 5.51 | 5.89 | 5.02 | 5 |
| | | Conventional | | | | | | | | |
| | 919 | BETA EXP 687 | 3.65 | 3.38 | 3.51 | 3.46 | -- | 3.41 | -- | 2 |
| | 918 | BETA EXP 698 | 2.99 | 3.13 | 3.06 | 2.90 | -- | 2.74 | -- | 2 |
| | 905 | BETA EXP 747 | 4.64 | 4.53 | 4.58 | -- | -- | -- | -- | 1 |
| | 909 | BETA EXP 758 | 3.79 | 4.03 | 3.91 | -- | -- | -- | -- | 1 |
| | 901 | Crystal 620 | 2.55 | 3.03 | 2.79 | 2.76 | -- | 2.73 | -- | 2 |
| | 906 | Crystal 622 | 3.45 | 3.62 | 3.53 | 3.55 | -- | 3.57 | -- | 2 |
| | 913 | Crystal 735 | 3.69 | 3.55 | 3.62 | -- | -- | -- | -- | 1 |
| | 910 | Crystal 737 | 3.79 | 3.25 | 3.52 | -- | -- | -- | -- | 1 |
| | 902 | Crystal R761 | 3.18 | 3.28 | 3.23 | 3.24 | -- | 3.25 | -- | 11 |

Table 33. 2017 Fusarium Ratings for ACSC Official Trial Entries
Two Moorhead, MN Sites

| Chk @ | Code | Variety | Adjusted @ | | | | | | Trial Yrs | |
|----------|------|----------------------|-------------------|-------------------|---------------|---------------|---------------|---------------|--------------|---------------|
| | | | N Mhd 4 Dates+ | S Mhd 4 Dates+ | 2017 2 loc | 2 Yr 4 loc | 3 Yr 6 loc | 2016 2 loc | | 2015 2 loc |
| | 914 | Hilleshög 3035Rz | 3.76 | 3.63 | 3.70 | 3.67 | -- | 3.65 | -- | 13 |
| | 917 | Hilleshög 9891Rz | 3.71 | 3.60 | 3.66 | 3.71 | -- | 3.76 | -- | 2 |
| | 904 | Maribo MA615Rz | 4.93 | 4.52 | 4.72 | 4.92 | -- | 5.11 | -- | 2 |
| | 916 | Maribo MA720Rz | 3.44 | 3.17 | 3.31 | -- | -- | -- | -- | 1 |
| | 911 | Seedex 8869 | 3.51 | 3.55 | 3.53 | 3.23 | -- | 2.92 | -- | 2 |
| | 907 | Seedex Deuce | 4.53 | 4.56 | 4.54 | 4.61 | -- | 4.68 | -- | 10 |
| | 912 | Strube 12720 | 5.49 | 5.71 | 5.60 | -- | -- | -- | -- | 1 |
| | 908 | Strube 13722 | 6.23 | 7.02 | 6.63 | -- | -- | -- | -- | 1 |
| | 903 | SV 48611 | 5.84 | 5.64 | 5.74 | 5.49 | -- | 5.24 | -- | 2 |
| | 915 | SV 48777 | 3.90 | 4.03 | 3.96 | -- | -- | -- | -- | 1 |
| | 1201 | FS CK #07 CRY5658RR | 3.01 | 2.99 | 3.00 | 2.83 | 2.78 | 2.66 | 2.67 | 12 |
| | 1205 | FS CK #13 HILL4043RR | 6.04 | 6.17 | 6.10 | 6.08 | 6.05 | 6.05 | 6.01 | 11 |
| | 1207 | FS CK #18 CRY5768RR | 4.23 | 4.20 | 4.21 | 4.30 | 4.23 | 4.40 | 4.09 | 9 |
| | 1209 | FS CK #28 SES36918RR | 5.61 | 5.46 | 5.54 | 5.33 | 5.30 | 5.13 | 5.25 | 9 |
| | 1210 | FS CK #29 CRY5875RR | 4.46 | 4.53 | 4.50 | 4.59 | 4.51 | 4.68 | 4.35 | 10 |
| 10 | | Check Mean | 4.86 | 4.75 | 4.81 | | | | | |
| | | Trial Mean | 4.06 | 4.14 | 4.10 | | | | | |
| | | Coeff. of Var. (%) | 12.67 | 13.16 | | | | | | |
| | | Mean LSD (0.05) | 0.70 | 0.70 | | | | | | |
| | | Mean LSD (0.01) | 0.93 | 0.93 | | | | | | |
| | | Sig Mrk | ** | ** | | | | | | |
| | | Adj Factor | 0.9346 | 0.9505 | | | | | | |

@ Adjustment is based upon check varieties.

+ Average rating based upon multiple rating dates. Lower numbers indicate better tolerance (1=Ex, 9=Poor).

NE indicates variety was not evaluated in disease nursery.

Created 11/3/2017

Table 34. Herbicides and Fungicides Applied to ACSC Official Trials

| Location | Herbicide/Insecticide | | | Fungicide | | |
|-----------------|----------------------------|-------------------------------------|----------------------------|--------------------------------|---------------------------------|----------------------------|
| | Herbicide & Rate | Spray Dates | Method | Fungicide Used | Spray Dates | Method |
| Casselton | Conventional | 5/15,5/24,6/5 | Ground | Quadris CR.1/CR.2/CR.3/CR.4 | 5/31,6/20 7/10,7/20,8/7,8/18 | Ground Ground |
| Felton | RU1 RU2 | 6/5 6/22 | Ground Ground | Quadris CR.1/CR.2/CR.3/CR.4 | 5/19,6/8 7/10,7/20,8/1,8/21 | Ground Ground |
| Georgetown | RU1 RU2 | 6/5 6/22 | Ground Ground | Quadris CR.2/CR.3/CR.4 | 6/1,6/23 7/14,7/25,8/15,8/21 | Ground Ground |
| Hendrum | RU1 RU2 Conventional | 5/15*,5/26 6/26 5/15,5/26,6/5 | Ground Ground Ground | Quadris CR.1/CR.2/CR.3/CR.4 | 5/19,6/8 7/10,7/20,8/1,8/18 | Ground Ground Ground |
| Hillsboro | RU1 RU2 | 6/1 6/20 | Ground Ground | Quadris CR.1/CR.2/CR.3/CR.4 | 5/19,6/8 7/10,7/20,8/7,8/18 | Ground Ground |
| Climax | RU1 RU2 | 6/5 6/22 | Ground Ground | Quadris CR.1/CR.2/CR.3/CR.4 | 6/1,6/20 7/14,7/25,8/15,8/21 | Ground Ground |
| Grand Forks + # | RU1 RU2 Conventional | 5/24 6/12,7/7 5/15,5/24,6/5 | Ground Ground Ground | Quadris CR.1/CR.2/CR.3 | 5/31,6/22 7/14,7/25,8/15 | Ground Ground Ground |
| Scandia | RU1 RU2 Conventional | 6/5 6/22 5/15,5/24,6/5 | Ground Ground Ground | Quadris CR.1/CR.2/CR.3 | 5/24,6/12 7/14,7/25,8/15 | Ground Ground Ground |
| Stephen | RU1 RU2 | 5/26 6/12 | Ground Ground | Quadris CR.1/CR.2/CR.3 | 5/24,6/12 7/14,7/26,8/17 | Ground Ground |
| St. Thomas+# | RU1 RU2 Conventional | 6/1 6/20 5/23,5/31,6/8 | Ground Ground Ground | Quadris CR.1/CR.2/CR.3 | 6/5,6/19 7/19,7/26,8/17 | Ground Ground Ground |
| Humboldt | Conventional | 5/23,5/31,6/8 | Ground | Quadris CR.1/CR.2/CR.3 | 6/6,6/16 7/18,7/26,8/17 | Ground Ground |
| Bathgate# | RU1 RU2 | 6/1 6/20 | Ground Ground | Quadris CR.1/CR.2/CR.3 | 6/5,6/16 7/18,7/26,8/17 | Ground Ground |

Ground applications complete by Technical Service personnel from ACSC.
 RU1 = Roundup Powermax (32 oz./A), Event (1 gal./100 gal water).
 RU1, * = Early application of 22oz to control cover crop.
 RU2 = Roundup Powermax (22 oz./A), Event (1 gal./100 gal water).

Quadris=first application on 2 leaf beet, second on 4-8 leaf beet.
 CR.1=Insire XT + Penncozeb
 CR.2=Agritin + Incognito
 CR.3=Penncozeb
 CR.4=Headline + Agritin

+ Counter 20G applied at 9.0 lbs./A at Grand Forks & St Thomas. Thimet applied at Grand Forks & St Thomas near peak fly in early June.
 # Warhawk 4E applied near peak root maggot fly in early June.