



SOYBEAN VARIETIES' FOLIAR DISEASE RATINGS–2018

Dr. Tom Allen, Extension Plant Pathologist at DREC-Stoneville, has posted ratings for various diseases that affect soybean varieties that were grown in the 2018 Mississippi Soybean Official Variety Trials (OVT) at Brooksville, Clarksdale, Longwood, Olive Branch, Raymond, Stoneville, Tippo, and Verona. Varieties were rated for indicated foliar diseases at the indicated locations in the appended tables. Varieties were rated when plants were between R6 and R6.5. Ratings are based on each variety's reaction to natural infestations of each disease at each location; i.e., plants were not inoculated with disease pathogens. Thus, the ratings do not presume to indicate a variety's response to a known yield-reducing level of the pathogen. Rather, the ratings are to be used as an indicator of each variety's reaction to the level of the pathogen present at each location in 2018.

Frogeye leaf spot (FLS) ratings were not made at any location because of a lack of major presence. For Cercospora leaf blight (CLB), ratings were based on the presence of the disease on leaves (0 to 5), petioles (6), and pods and stems (7 to 9), and this was based on disease intensity as determined by coloration of plant material (leaves with distinct purple coloration, and petioles, pods, and main stems with purple to near black coloration). Septoria brown spot (SBS) and target spot (TS) were rated based on the presence of the disease within the plant canopy, where 0 to 3 indicated presence in the lower canopy, 4 to 5 indicated presence in the middle canopy, 6 to 8 indicated presence in the upper canopy, and 9 indicated extensive defoliation throughout the entire plant canopy and the disease present in the uppermost canopy.

SOYBEAN VARIETIES' STEM CANKER RATINGS–2018

All entries in the 2018 Mississippi OVT were evaluated for their reaction to inoculation with the stem canker fungus by Dr. Tom Allen, Extension Plant Pathologist at the MSU-DREC. Additional varieties (n=10) that were not entered in the Miss. OVT were also evaluated.

Trials consisted of four replicates of single rows of each cultivar planted in 10-foot-long plots. Within each row, 10 plants were inoculated with a single toothpick that contained the fungus that causes stem canker (four isolates of the fungus were used for a fungal cocktail on toothpicks). Plants were inoculated approximately 8 weeks post-planting. Evaluations of stem canker severity were conducted between R6 and R6.5 by observing the stem of each inoculated plant for the presence of a canker. Ratings of each variety were made using a modified 0-9 scale (see each table's footnote for rating scale).

Information within each table contains the analyzed stem canker rating as an average of all inoculated plants in the four replicates. In addition, each cultivar includes a stem canker susceptibility designation; i.e., R = resistant, MR = moderately resistant, MS = moderately susceptible, and S = susceptible.

In fields where stem canker has been documented, soybean cultivars that are resistant to stem canker have been observed. In addition, keep in mind that observations of stem canker tend to be more obvious when the environment is conducive for disease development. Therefore, over time, and in years when the environment may not be conducive for the development of stem canker, it is possible that stem canker designations could change among years. Moreover, as additional fungal isolates are added to the collection, it is possible that the rating as well as the designation for any cultivar can change accordingly.

Please note: The statistical analysis used on these stem canker data—a rank transformation prior to the means



analysis—may make some values appear skewed. The letter groupings listed after values are for the rank transformed values, but the non-transformed data are presented to show the true mean of the scores assigned in the field.

Statistics

LSD (least significant difference). These values are used as a statistical tool to determine significant differences among variety ratings. The average ratings of any two varieties being compared must differ by more than the LSD value to be considered different in a particular test.

Put another way, the LSD is the smallest difference between ratings of two varieties that can be attributed to an actual difference in the varieties' disease susceptibility in a particular trial. Thus, a difference in the ratings of two varieties that exceeds the LSD is attributable to a difference in the disease susceptibility of the two varieties. Even though the average ratings of two varieties may be numerically different, the two disease ratings are not considered significantly different if that difference does not exceed the test LSD.

Probability level (p value). A disease rating difference between two varieties that exceeds the LSD value will be expected to do so 9 times out of 10 at the 10% (.10) level of probability, 19 times out of 20 at the 5% (.05) level, 99 times out of 100 at the 1% (.01) level, etc. The smaller the probability level, the more stringent the statistical test.

CV (coefficient of variation) and/or R² (coefficient of determination). These values are a measure of the relative precision of a given trial and can be used to compare the relative precision of different trials. The CV is generally considered to be an estimate of the amount of unexplained variation in a given trial or test, while the R² is a measure of the amount of variation that is explained or accounted for in a given test. A CV below 10% (10% unexplained variation in a trial) is desired, while an R² above 0.90 (90% of the variation in a trial has been accounted for) is desired.

Data from Mississippi soybean OVT tests that were rated for disease infection are presented in the following tables (Tables 1-6 are intentionally missing).

Tables 7-9	Reaction of MG IV conventional soybean varieties to indicated diseases, OVT, 2018.
Tables 10-12	Reaction of MG IV early soybean varieties to indicated diseases, OVT, 2018.
Tables 13-15	Reaction of MG IV late soybean varieties to indicated diseases, OVT, 2018.
Tables 16-18	Reaction of MG IV LibertyLink soybean varieties to indicated diseases, OVT, 2018.
Tables 19-22	Reaction of MG V conventional soybean varieties to indicated diseases, OVT, 2018.
Tables 23-26	Reaction of MG V early soybean varieties to indicated diseases, OVT, 2018.
Tables 27-30	Reaction of MG V late soybean varieties to indicated diseases, OVT, 2018.
Tables 31-34	Reaction of MG V LibertyLink soybean varieties to indicated diseases, OVT, 2018.
Tables 35-38	Reaction of MG IV soybean varieties to stem canker pathogen, 2018.
Tables 39-42	Reaction of MG V soybean varieties to stem canker pathogen, 2018.

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Maturity Group IV Conv Cercospora leaf blight ratings

Table 7. Cercospora leaf blight severity rating (0-9 scale)

Brand Variety	Brooksville (N)	Stoneville-clay	AVG
GDM Seeds 2987331 (GDM_2)	5.3	5.0	5.2
GDM Seeds 2987416 (GDM_1)	5.3	5.0	5.2
Go Soy 43C17S	6.7	5.7	6.2
Go Soy E4510S	6.3	5.0	5.7
Go Soy Ireane	5.3	5.0	5.2
Uni. Of Missouri S13-10590C	6.0	5.0	5.5
Uni. Of Missouri S13-10592C	6.7	5.0	5.8
Uni. Of Missouri S13-2743C	6.7	6.0	6.3
Uni. Of Missouri S13-3851C	5.3	5.0	5.2
MSE	25.9	6.8	
CV	36.4	18.6	
<i>p</i> -value	0.0055	<0.0001	

Maturity Group IV Conventional Septoria brown spot ratings

Table 8. Septoria brown spot severity rating (0-9 scale)

Brand Variety	Brooksville (N)	Stoneville-clay	AVG
GDM Seeds 2987331 (GDM_2)	7.7	6.0	6.8
GDM Seeds 2987416 (GDM_1)	7.0	6.3	6.7
Go Soy 43C17S	6.7	8.0	7.3
Go Soy E4510S	7.0	8.0	7.5
Go Soy Ireane	7.7	6.3	7.0
Univ. Of Missouri S13-10590C	6.7	7.7	7.2
Univ. Of Missouri S13-10592C	7.3	6.3	6.8
Univ. Of Missouri S13-2743C	7.3	7.7	7.5
Univ. Of Missouri S13-3851C	6.7	7.3	7.0
MSE	47.8	17.9	
CV	49.4	30.2	
<i>p</i> -value	0.3305	0.0002	

Table 9. Target spot severity rating (0-9 scale)

Brand Variety	Brooksville (N)	Stoneville-clay	AVG
GDM Seeds 2987331 (GDM_2)	7.7	6.0	6.8
GDM Seeds 2987416 (GDM_1)	7.0	6.0	6.5
Go Soy 43C17S	6.7	8.0	7.3
Go Soy E4510S	7.3	8.3	7.8
Go Soy Ireane	7.7	8.0	7.8
Univ. Of Missouri S13-10590C	6.7	7.0	6.8
Univ. Of Missouri S13-10592C	7.7	6.0	6.8
Univ. Of Missouri S13-2743C	7.0	7.0	7.0
Univ. Of Missouri S13-3851C	7.3	8.0	7.7
MSE	47.5	16.3	
CV	49.2	28.8	
p-value	0.3650	0.0002	

Maturity Group IV early Cercospora leaf blight ratings

Table 10.

Cercospora leaf blight severity rating (0-9 scale)

Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Stoneville (N)	Tippo	Verona	AVG
AgriGold G4440RX	6.0	5.0	5.0	5.3	5.7	5.0	5.0	5.0	5.0	6.7	5.0	5.3
AgriGold G4579RX	5.7	5.3	5.3	5.3	6.0	5.0	5.0	5.0	5.7	5.7	5.3	5.4
AgriGold G4605RX	6.3	5.0	5.3	5.3	6.3	6.0	5.0	5.0	5.3	6.3	5.0	5.5
AGS GS 46X17	6.3	5.7	5.3	4.7	5.3	5.7	5.0	5.0	5.3	6.0	5.0	5.4
Armor 42-D27 (ARX4207)	7.0	6.0	7.0	6.3	6.0	6.7	6.0	6.0	6.3	6.0	6.3	6.3
Armor X45D50	5.0	5.0	5.0	4.7	5.3	5.3	5.0	5.0	5.0	6.3	5.0	5.2
Armor X46D63	6.0	5.3	5.7	5.0	6.3	5.3	5.0	5.0	5.0	6.7	5.0	5.5
Asgrow AG42X9	6.3	5.0	5.3	6.3	6.3	6.3	5.3	5.7	6.3	6.0	5.0	5.8
Asgrow AG43X7	6.7	5.7	6.0	6.0	6.7	5.3	5.7	5.7	6.3	6.7	5.0	6.0
Asgrow AG43X8	6.7	5.0	5.7	5.3	6.7	6.3	5.0	5.0	5.0	6.3	5.0	5.6
Asgrow AG45X8	6.7	5.3	5.3	5.0	5.7	6.3	5.0	5.0	5.7	6.0	5.0	5.5
Asgrow AG46X6	6.0	5.0	5.0	4.3	5.3	5.7	5.0	5.0	5.0	5.7	5.0	5.2
Croplan RX4687S	5.7	5.3	5.3	4.7	7.0	5.7	5.0	5.0	5.0	6.0	5.0	5.4
Croplan(Mid-south) RX 4217 S	6.3	5.7	6.7	6.3	6.3	6.7	5.0	6.0	7.0	6.0	6.3	6.2
Croplan(Mid-south) RX 4500 S	5.7	5.0	5.7	5.3	6.0	6.0	5.0	5.3	5.7	6.3	5.3	5.6
Delta Grow DG 4670 RR2	6.3	5.7	5.0	5.7	6.0	7.0	5.0	5.0	5.3	6.3	5.0	5.7
Delta Grow DG 46X25RR2 Xtend	6.0	5.0	5.0	4.7	6.3	5.3	5.0	5.0	5.0	6.3	5.0	5.3
Dyna-Gro S41XS98	6.7	6.3	7.0	7.0	6.3	6.7	6.0	5.7	7.0	5.7	5.7	6.4
Dyna-Gro S45XS37	6.3	5.3	5.3	4.7	5.3	5.7	5.0	5.3	5.0	5.7	5.0	5.3
Dyna-Gro S45XS66	6.0	5.0	5.0	5.3	6.0	5.0	5.0	5.0	5.0	6.7	5.0	5.4
Dyna-Gro SX18845XT	5.7	5.0	5.0	4.7	5.7	5.7	5.0	5.0	5.0	6.3	5.0	5.3
Great Heart GT-4628X	5.7	5.3	5.0	5.3	5.7	6.0	5.0	5.3	5.3	5.7	5.3	5.4
Great Heart GT-4685XS	6.3	5.0	5.0	6.0	7.0	5.3	5.0	5.0	5.3	6.7	5.0	5.6
Local Seed Co. LS4487XS	6.0	5.0	5.7	5.0	5.7	5.7	5.0	5.0	5.0	6.0	5.0	5.4
Local Seed Co. LS4565XS	6.3	5.3	5.0	5.0	5.3	5.3	5.3	5.0	5.7	6.0	5.0	5.4
Local Seed Co. LS4583X	5.7	5.0	5.0	5.0	5.3	5.3	5.0	5.0	5.0	6.0	5.0	5.2
Local Seed Co. LS4677X	5.7	5.0	5.0	5.0	5.7	5.3	5.0	5.0	5.0	6.0	5.0	5.2
Local Seed Co. LS4689X	5.3	5.3	6.0	5.0	6.0	5.7	5.0	5.0	5.3	6.0	5.0	5.4
Mission Seed Solutions A4447NSXR2	7.0	5.3	5.7	5.0	6.3	6.0	5.0	5.3	5.0	6.7	5.0	5.7
Mission Seed Solutions A4637NSXR2	6.3	5.0	5.0	5.3	6.3	5.3	5.0	5.3	5.7	6.3	5.0	5.5
Mission Seed Solutions MEX4608	6.0	5.0	5.0	5.3	6.0	6.0	5.0	5.0	5.0	6.0	5.0	5.4
Mission Seed Solutions MEX4618	6.3	5.0	5.7	5.7	5.7	6.0	5.0	5.0	5.0	6.3	5.7	5.6
MorSoy MS 4426 RXT	6.7	5.0	5.0	5.0	5.7	5.0	5.0	5.0	5.0	6.3	5.0	5.3
MorSoy MS 4616 RXT	6.7	5.3	5.0	5.0	5.7	5.0	5.0	5.0	5.0	6.0	5.0	5.3
NK Seeds S43-V3X	6.3	6.0	5.7	6.5	6.5	6.3	5.0	5.3	6.3	5.7	5.0	5.9

Maturity Group IV early Cercospora leaf blight ratings

Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Stoneville (N)	Tippo	Verona	AVG
NK Seeds S45-J3X	6.7	5.7	5.0	5.7	6.3	6.0	5.0	5.7	6.7	6.0	5.0	5.8
NK Seeds S45-K5X	7.0	5.3	5.7	6.0	6.0	5.7	5.0	5.0	6.0	6.0	5.0	5.7
Pioneer P42A96X	6.3	6.0	6.3	6.7	6.0	5.7	5.3	6.0	6.7	6.0	6.0	6.1
Pioneer P46A16R	5.3	5.0	5.0	5.0	6.0	5.7	5.0	5.0	5.0	6.3	5.0	5.3
Pioneer P46A57BX	7.0	5.7	6.3	5.3	6.7	6.7	5.0	5.3	5.3	6.7	5.3	5.9
Progeny Ag. P4255RX	6.3	6.0	7.0	7.0	6.0	5.7	5.3	5.7	7.0	6.3	5.7	6.2
Progeny Ag. P4318RX	6.0	6.0	6.7	6.7	6.3	6.3	5.3	5.3	7.0	5.7	5.3	6.1
Progeny Ag. P4444RXS	6.7	5.7	5.3	5.0	6.7	6.0	5.3	5.0	5.0	6.7	5.0	5.7
Progeny Ag. P4570RXS	6.7	5.0	5.3	5.0	6.3	5.7	5.0	5.3	5.3	6.3	5.0	5.5
Progeny Ag. P4620RXS	6.3	5.0	5.0	5.0	6.0	5.3	5.0	5.0	5.3	5.7	5.0	5.3
Terral REV 4679X	5.3	4.0	5.0	5.0	6.0	5.7	5.0	5.0	5.0	5.7	5.0	5.2
Uni. Of Missouri R14-15146R	5.7	5.0	4.7	5.7	5.7	5.3	5.0	5.7	6.0	6.0	5.0	5.4
USG 7447XTS	5.7	5.0	5.0	5.3	5.7	5.0	5.0	5.0	5.0	6.3	5.0	5.3
MSE	1,097.8	639.6	490.1	592.7	1,140.2	886.3	254.3	538.1	430.8	765.4	318.0	
CV	46.6	34.9	30.5	33.6	46.1	41.1	22.0	31.9	28.6	36.8	24.6	
<i>p</i> -value	0.0040	<0.0001	<0.0001	<0.0001	0.0981	0.0009	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	

Maturity Group IV late Septoria brown spot ratings

Table 11.

Septoria brown spot severity rating (0-9 scale)

Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Stoneville (N)	Tippo	Verona	AVG
AgriGold G4440RX	6.7	7.3	6.3	5.7	5.3	6.7	6.0	7.0	7.7	8.0	6.7	6.7
AgriGold G4579RX	7.3	7.3	7.7	6.3	5.7	7.3	6.0	8.3	7.3	8.0	6.3	7.1
AgriGold G4605RX	7.3	8.0	7.7	7.7	6.0	7.7	6.7	8.3	8.0	8.0	7.0	7.5
AGS GS 46X17	7.3	6.7	7.7	7.0	5.7	7.0	7.0	8.0	8.0	7.7	6.7	7.2
Armor 42-D27 (ARX4207)	8.0	8.0	8.0	6.7	6.0	7.3	8.3	9.0	8.0	7.7	7.0	7.6
Armor X45D50	7.3	7.0	7.0	5.3	6.0	7.7	6.3	7.7	7.7	7.7	6.7	6.9
Armor X46D63	7.0	7.3	8.0	6.0	5.7	7.0	6.3	8.0	7.7	7.7	7.0	7.1
Asgrow AG42X9	7.7	8.7	8.0	7.3	6.3	8.3	7.7	8.0	7.7	7.7	7.3	7.7
Asgrow AG43X7	6.7	7.7	7.7	6.3	6.0	7.3	7.0	7.7	8.0	8.0	7.0	7.2
Asgrow AG43X8	7.0	7.7	8.0	6.7	5.3	7.3	6.7	8.0	8.0	8.0	7.3	7.3
Asgrow AG45X8	7.7	7.7	8.3	6.3	6.7	7.3	6.3	8.0	8.0	8.0	7.3	7.4
Asgrow AG46X6	6.7	7.7	7.3	5.7	5.3	7.0	6.3	7.3	7.3	8.0	7.0	6.9
Croplan RX4687S	7.0	7.3	7.3	6.0	5.5	7.3	6.0	7.0	8.0	8.0	6.7	6.9
Croplan(Mid-south) RX 4217 S	6.5	7.0	7.7	6.7	6.3	7.7	8.0	7.7	7.7	7.7	7.3	7.3
Croplan(Mid-south) RX 4500 S	7.3	7.7	7.3	6.0	6.7	7.3	7.3	7.3	8.0	8.0	6.3	7.2
Delta Grow DG 4670 RR2	7.7	7.7	6.7	6.7	6.7	8.0	8.0	8.0	8.0	8.0	7.0	7.5
Delta Grow DG 46X25RR2 Xtend	8.0	7.7	7.3	6.0	6.3	8.0	6.3	7.7	8.0	7.7	6.3	7.2
Dyna-Gro S41XS98	7.0	8.3	8.3	7.0	6.0	8.0	8.0	9.0	7.3	5.7	7.3	7.5
Dyna-Gro S45XS37	6.7	7.3	6.7	6.3	6.3	7.7	7.3	7.3	8.0	7.7	6.3	7.1
Dyna-Gro S45XS66	7.3	7.3	6.7	6.3	6.0	7.0	6.0	7.7	8.3	7.7	6.3	7.0
Dyna-Gro SX18845XT	7.0	7.3	6.7	5.7	6.3	7.3	7.0	7.3	7.3	8.0	7.7	7.1
Great Heart GT-4628X	7.3	8.0	6.7	7.0	6.3	7.3	6.7	8.0	7.7	7.7	7.0	7.2
Great Heart GT-4685XS	7.3	8.0	7.3	6.3	5.7	7.3	7.3	7.0	8.0	7.7	6.3	7.1
Local Seed Co. LS4487XS	6.7	7.3	8.0	6.3	6.0	7.7	6.7	8.3	8.0	8.0	6.7	7.2
Local Seed Co. LS4565XS	7.3	8.3	6.7	7.5	6.3	8.0	6.3	7.7	7.7	8.0	6.7	7.3
Local Seed Co. LS4583X	7.7	7.7	7.0	5.7	6.0	7.3	6.0	8.0	8.0	8.0	6.7	7.1
Local Seed Co. LS4677X	6.7	7.3	6.7	7.0	6.7	7.3	6.3	7.0	7.3	8.0	7.0	7.0
Local Seed Co. LS4689X	7.3	8.0	7.7	7.3	5.3	8.3	6.7	7.7	8.0	7.7	7.0	7.4
Mission Seed Solutions A4447NSXR2	7.7	7.7	8.7	6.7	5.7	7.7	6.3	7.3	8.0	8.0	7.3	7.4
Mission Seed Solutions A4637NSXR2	7.3	6.7	7.7	6.3	6.0	7.3	7.0	7.3	7.3	7.7	7.3	7.1
Mission Seed Solutions MEX4608	8.0	7.7	7.7	7.0	6.0	8.0	7.3	7.7	7.3	7.3	6.7	7.3
Mission Seed Solutions MEX4618	7.3	7.0	7.7	6.7	5.3	7.7	7.0	8.0	7.3	7.7	8.0	7.2
MorSoy MS 4426 RXT	7.0	8.3	7.3	5.7	5.7	7.0	7.3	7.7	8.0	8.0	6.7	7.2
MorSoy MS 4616 RXT	7.0	7.3	7.0	5.3	5.7	6.7	6.7	8.0	7.7	8.0	6.3	6.9
NK Seeds S43-V3X	7.0	7.3	8.0	7.0	5.5	7.7	7.3	8.0	7.7	7.7	7.7	7.3

Maturity Group IV late Septoria brown spot ratings

Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Stoneville (N)	Tippo	Verona	AVG
NK Seeds S45-J3X	7.3	7.3	7.7	6.7	5.7	7.0	7.0	9.0	8.3	8.0	7.3	7.4
NK Seeds S45-K5X	7.0	7.7	8.0	6.3	6.0	7.7	7.0	8.7	7.7	7.7	7.0	7.3
Pioneer P42A96X	7.3	7.0	8.0	8.0	6.0	7.7	7.3	8.3	7.7	8.0	7.0	7.4
Pioneer P46A16R	7.0	7.3	7.0	6.7	5.3	7.3	6.0	8.3	7.3	8.0	6.7	7.3
Pioneer P46A57BX	7.3	8.3	7.7	6.0	6.7	7.3	7.0	8.3	8.0	7.7	6.7	7.5
Progeny Ag. P4255RX	7.0	7.7	8.3	7.0	5.3	7.3	7.7	8.0	7.7	8.0	7.3	7.0
Progeny Ag. P4318RX	7.3	7.0	8.0	7.0	5.3	7.3	6.7	7.7	8.0	8.0	7.3	7.4
Progeny Ag. P4444RXS	7.3	7.7	8.0	6.3	6.3	7.7	7.0	7.7	8.0	7.7	6.3	7.4
Progeny Ag. P4570RXS	7.7	7.3	7.7	6.0	5.7	8.0	7.0	8.0	7.7	8.0	6.7	7.2
Progeny Ag. P4620RXS	7.0	8.0	6.7	5.7	6.7	7.7	6.3	7.3	7.3	7.7	6.3	7.3
Terral REV 4679X	7.0	8.0	7.0	5.7	5.3	7.0	6.7	7.3	7.3	7.3	7.7	7.2
Uni. Of Missouri R14-15146R	7.0	6.7	6.3	7.3	6.3	6.7	6.7	7.3	7.0	7.7	7.3	7.0
USG 7447XTS	7.0	8.0	7.3	6.0	5.7	7.0	7.0	8.0	8.0	8.3	6.3	6.9
MSE	1,221.5	1,293.3	704.4	1,173.9	1,379.8	1,006.7	1,240.3	1,101.3	1,026.0	900.9	1,044.8	
CV	49.6	49.6	36.5	47.3	51.0	43.8	48.6	45.8	44.2	42.0	44.6	
p-value	0.5197	0.0983	<0.0001	0.0047	0.2692	0.3722	0.0094	0.0018	0.1772	0.8947	0.0114	

Maturity Group IV early Target spot ratings

Table 12.

Target spot severity rating (0-9 scale)

Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Stoneville (N)	Tippo	Verona	AVG
AgriGold G4440RX	6.7	7.0	4.7	5.7	5.0	5.0	7.0	6.3	7.0	6.3	6.0	6.1
AgriGold G4579RX	7.7	7.0	7.0	5.0	5.7	6.0	8.0	7.0	6.0	6.7	6.3	6.6
AgriGold G4605RX	6.3	8.0	7.0	6.3	5.0	5.7	7.7	6.3	7.3	6.7	5.7	6.5
AGS GS 46X17	8.0	6.7	7.0	6.0	4.7	5.3	9.0	9.0	7.7	7.3	7.7	7.1
Armor 42-D27 (ARX4207)	6.0	8.3	5.7	5.3	5.0	5.3	8.0	7.7	6.3	7.0	6.7	6.5
Armor X45D50	7.0	8.0	7.3	4.7	5.7	5.7	8.0	7.0	7.7	6.7	6.7	6.8
Armor X46D63	7.3	7.3	6.3	5.0	5.3	5.0	7.0	7.7	7.7	8.0	6.3	6.6
Asgrow AG42X9	7.0	7.7	5.7	5.3	5.3	6.7	7.7	6.3	6.7	7.0	6.0	6.5
Asgrow AG43X7	7.3	7.3	5.0	4.3	5.3	4.7	8.3	7.3	7.0	7.7	6.3	6.4
Asgrow AG43X8	5.7	7.3	6.7	5.3	5.3	5.0	5.7	6.3	6.7	6.3	7.0	6.1
Asgrow AG45X8	6.7	7.7	6.7	5.3	5.0	5.7	5.7	7.7	7.0	6.5	7.0	6.4
Asgrow AG46X6	6.0	7.0	5.7	5.7	5.0	4.7	5.7	6.3	7.0	7.7	6.7	6.1
Croplan RX4687S	6.0	7.3	5.7	5.3	4.3	5.0	7.0	6.0	7.3	5.7	6.3	6.0
Croplan(Mid-south) RX 4217 S	7.0	6.0	5.7	5.3	5.0	6.0	7.3	6.0	6.3	6.7	5.7	6.1
Croplan(Mid-south) RX 4500 S	7.0	6.3	6.0	4.3	5.0	5.3	7.0	7.0	8.3	6.3	6.3	6.3
Delta Grow DG 4670 RR2	7.3	7.7	6.7	5.3	5.0	6.3	7.7	6.7	6.7	7.3	6.3	6.6
Delta Grow DG 46X25RR2 Xtend	7.3	7.7	6.7	6.3	5.7	6.7	8.3	7.3	7.0	7.0	6.3	6.9
Dyna-Gro S41XS98	7.0	7.7	6.3	4.7	5.7	6.3	7.7	7.3	6.3	4.5	6.3	6.3
Dyna-Gro S45XS37	6.0	7.7	6.0	4.7	5.3	5.7	7.7	6.0	6.0	7.0	6.0	6.2
Dyna-Gro S45XS66	7.7	7.3	6.7	5.3	5.7	4.7	7.3	7.0	7.7	6.0	6.0	6.5
Dyna-Gro SX18845XT	8.0	7.3	6.3	5.0	5.7	5.0	8.0	7.0	6.3	8.0	6.7	6.7
Great Heart GT-4628X	7.3	7.7	6.3	6.0	5.3	5.3	8.0	6.3	7.3	6.7	5.7	6.5
Great Heart GT-4685XS	6.7	7.3	6.0	5.3	6.0	5.3	7.7	7.3	7.0	7.3	6.3	6.6
Local Seed Co. LS4487XS	6.7	7.3	7.0	5.0	6.0	6.3	8.7	8.0	7.7	6.5	6.7	6.9
Local Seed Co. LS4565XS	7.0	7.3	6.0	5.5	5.3	6.0	7.0	7.0	6.3	7.0	6.0	6.4
Local Seed Co. LS4583X	7.0	7.3	6.7	4.7	5.3	6.3	8.7	8.0	7.7	6.3	7.3	6.8
Local Seed Co. LS4677X	6.3	7.0	6.3	5.0	5.3	5.7	5.7	7.3	5.7	7.0	6.3	6.2
Local Seed Co. LS4689X	6.0	7.3	6.0	5.7	4.7	5.0	7.3	7.0	6.7	5.7	7.0	6.2
Mission Seed Solutions A4447NSXR2	6.7	7.3	7.0	4.7	5.0	5.3	7.0	6.7	7.7	6.3	6.3	6.4
Mission Seed Solutions A4637NSXR2	6.7	6.7	6.3	5.0	5.0	4.7	7.3	7.0	6.0	6.0	6.3	6.1
Mission Seed Solutions MEX4608	7.0	7.3	6.7	5.0	4.7	5.3	7.7	6.7	6.3	6.7	6.7	6.4
Mission Seed Solutions MEX4618	6.3	7.3	5.7	5.0	6.0	5.0	8.0	8.0	7.0	7.0	7.0	6.6
MorSoy MS 4426 RXT	7.3	8.7	5.3	5.3	4.7	5.0	6.3	6.7	7.0	7.7	6.0	6.4
MorSoy MS 4616 RXT	7.0	7.3	5.7	4.3	4.7	5.0	7.0	7.3	7.3	7.3	5.7	6.2
NK Seeds S43-V3X	6.3	6.7	5.3	5.5	5.3	4.3	6.3	6.0	6.0	7.0	6.7	6.0

Maturity Group IV early Target spot ratings

Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Stoneville (N)	Tippo	Verona	AVG
NK Seeds S45-J3X	7.7	8.3	7.3	4.3	5.7	5.7	8.7	7.7	7.3	6.0	7.3	6.9
NK Seeds S45-K5X	7.0	7.0	6.3	5.7	5.0	5.3	7.7	7.3	7.3	7.0	8.0	6.7
Pioneer P42A96X	6.3	7.0	6.3	5.3	4.7	5.7	7.7	8.0	6.0	.	6.3	6.9
Pioneer P46A16R	6.3	7.7	6.7	4.7	5.0	5.0	5.3	6.7	6.0	6.7	5.3	6.7
Pioneer P46A57BX	6.3	8.3	5.7	4.7	5.0	4.7	6.7	6.7	6.7	7.0	5.7	6.3
Progeny Ag. P4255RX	6.0	7.3	6.3	5.7	5.3	5.3	7.7	6.7	6.7	8.0	7.0	5.9
Progeny Ag. P4318RX	6.3	7.3	5.7	4.7	5.3	5.0	7.7	6.3	6.7	6.0	6.7	6.1
Progeny Ag. P4444RXS	7.7	7.7	7.0	5.7	6.0	5.3	7.7	7.7	7.3	6.7	6.3	6.5
Progeny Ag. P4570RXS	8.0	7.3	6.3	4.3	5.7	5.3	8.3	8.0	6.7	7.3	7.0	6.2
Progeny Ag. P4620RXS	6.7	7.7	5.3	4.0	5.0	5.0	6.7	6.7	7.0	7.3	6.0	6.8
Terral REV 4679X	6.0	8.0	6.0	5.0	4.3	4.7	5.3	6.3	6.3	5.7	6.7	6.8
Uni. Of Missouri R14-15146R	6.3	6.0	6.7	5.7	5.7	5.7	7.7	7.0	6.7	7.0	7.0	6.1
USG 7447XTS	7.0	7.7	6.0	5.0	5.0	5.7	7.0	7.3	6.7	7.0	6.0	5.8
MSE	1,269.20	1,327.30	1,350.90	1,620.80	1,103.40	709.20	1,027.90	1,241.40	1,261.20	1,041.40	1,231.50	
CV	50.5	50.3	50.9	55.5	45.8	36.7	44.2	48.6	48.9	49.3	48.4	
<i>p</i> -value	0.1068	0.1140	0.0363	0.6111	0.4428	0.2268	<0.0001	0.0063	0.0232	0.1091	0.0234	

Maturity Group IV late Cercospora leaf blight ratings

Table 13.

Cercospora leaf blight severity rating (0-9 scale)

Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Stoneville (N)	Tippo	Verona	AVG
AgriGold G4995RX	6.0	6.3	5.0	6.3	5.3	7.0	6.0	6.7	6.0	5.7	6.0	6.0
AGS GS 48X18	6.3	6.0	6.3	7.0	5.0	7.0	6.3	7.0	5.3	6.0	6.0	6.2
Armor X47D22	7.0	6.3	6.0	6.7	6.0	7.0	6.7	7.0	7.0	6.0	6.0	6.5
Armor X48D02	7.0	7.0	5.0	7.0	5.3	7.0	6.0	7.0	6.3	5.7	5.3	6.2
Armor X49D31	7.0	7.0	5.0	6.7	5.7	7.0	6.3	7.0	6.7	5.7	6.0	6.4
Asgrow AG47X9	6.7	7.0	5.7	7.0	5.7	7.0	6.7	7.0	7.0	5.3	6.0	6.5
Asgrow AG48X9	6.7	6.3	5.3	6.3	5.3	7.0	6.0	7.0	7.0	5.7	5.7	6.2
Asgrow AG49X9	7.0	6.7	5.3	6.7	5.7	7.0	6.0	7.0	7.0	6.0	5.7	6.4
Croplan RX4825	6.3	6.3	5.0	6.7	5.0	7.0	6.0	7.0	6.3	5.0	6.0	6.1
Croplan RX4927	7.0	7.0	5.3	7.0	5.7	7.0	7.0	7.0	7.0	5.7	6.3	6.5
Delta Grow DG 4790 RR2	7.3	6.7	5.0	7.0	6.3	7.0	6.7	7.0	7.0	5.7	6.0	6.5
Delta Grow DG 48X45RR2 Xtend	6.3	6.0	5.0	6.7	5.3	7.0	6.0	6.7	6.0	5.0	6.3	6.0
Dyna-Gro S48XT56	6.3	6.3	5.7	6.7	5.7	6.7	6.0	6.7	6.3	5.0	6.0	6.1
Dyna-Gro S49XT39	7.0	6.7	6.0	6.7	5.3	6.7	6.3	7.0	7.0	5.3	6.0	6.4
Go Soy 49G16	6.0	6.0	5.0	6.0	5.3	7.0	6.0	6.3	6.0	5.0	5.3	5.8
Great Heart GT-4721X	7.0	7.0	5.7	7.0	6.0	7.0	6.3	7.0	7.0	5.5	6.5	6.5
Great Heart GT-4809X	6.0	6.0	5.3	7.0	5.7	7.0	6.3	7.0	7.0	5.7	6.0	6.3
Great Heart GT-4833XS	7.0	6.7	5.7	7.0	6.0	7.0	6.3	7.0	7.0	5.7	6.0	6.5
Great Heart GT-4979X	6.0	6.3	5.3	6.3	5.7	7.0	6.0	7.0	6.0	5.3	5.7	6.1
Local Seed Co. AV47W2X	7.0	6.7	6.0	7.0	6.0	7.0	7.0	7.0	7.0	5.7	6.3	6.6
Local Seed Co. AV49W3X	7.0	6.7	6.0	7.0	5.7	7.0	7.0	7.0	7.0	5.7	6.3	6.6
Local Seed Co. LS4889XS	7.0	7.0	5.0	6.7	5.3	7.0	6.0	7.0	6.7	5.3	6.0	6.3
Local Seed Co. LS4966X	6.0	6.3	5.3	6.3	5.3	7.0	6.0	7.0	6.0	5.3	5.7	6.0
Local Seed Co. LS4968XS	7.0	6.7	5.0	7.0	5.0	7.0	6.0	7.0	6.3	5.3	6.0	6.2
Local Seed Co. LS4988X	6.0	6.3	5.3	6.3	5.3	7.0	6.0	6.7	6.7	5.3	6.0	6.1
Mission Seed Solutions MEX4808	6.7	6.3	5.0	6.7	5.3	7.0	6.0	7.0	6.7	5.7	6.0	6.2
Mission Seed Solutions MEX4908	6.0	6.7	5.0	6.0	5.3	7.0	6.0	6.7	6.7	5.3	6.0	6.1
MorSoy MS 4846 RXT	6.3	6.3	5.0	6.3	5.3	7.0	6.0	7.3	6.3	5.0	5.7	6.1
NK Seeds S48-R2X	6.0	6.3	5.7	7.0	5.3	7.0	6.7	7.0	6.7	5.3	6.0	6.3
Petrus Seed 479 GTS	6.0	6.3	5.3	6.0	6.0	6.0	6.7	6.0	6.0	5.7	6.0	6.0
Petrus Seed 4916 GT	6.0	6.0	5.0	6.7	5.3	6.7	6.0	6.7	6.3	5.0	5.3	5.9
Pioneer P48A60X	7.0	6.3	6.7	7.0	6.7	7.0	7.0	7.0	7.0	5.7	6.3	6.7
Progeny Ag. P4757RY	7.0	7.0	5.0	7.0	6.3	7.0	6.3	7.0	7.0	6.0	6.3	6.5
Progeny Ag. P4799RXS	7.0	6.7	5.0	7.0	6.3	7.0	6.3	7.0	6.7	5.7	6.0	6.4
Progeny Ag. P4816RX	6.0	6.3	5.0	6.3	5.3	7.0	6.0	7.0	6.0	5.0	6.0	6.0

Maturity Group IV late Cercospora leaf blight ratings

Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Stoneville (N)	Tippo	Verona	AVG
Progeny Ag. P4851RX	7.0	6.7	5.7	7.0	6.3	7.0	7.0	7.0	7.0	5.0	6.0	6.5
Progeny Ag. P4955RX	7.0	6.7	5.3	7.0	5.3	7.0	6.3	7.0	7.0	5.7	6.0	6.4
Progeny Ag. P4994RX	7.0	6.7	5.0	7.0	5.7	7.0	6.0	7.0	7.0	5.3	6.0	6.3
Terral REV 47A98	7.3	7.0	5.7	7.0	5.7	7.0	7.0	7.0	7.0	6.3	6.0	6.6
Terral REV 4857X	7.0	6.7	5.7	7.0	6.0	7.0	6.3	7.0	7.0	5.7	6.3	6.5
Terral REV 48A26	7.0	6.3	5.7	7.0	6.3	7.0	7.0	7.0	7.0	5.7	6.7	6.6
Terral REV 4927X	7.0	7.0	6.0	6.7	6.0	7.0	7.0	7.0	7.0	6.0	6.7	6.7
Uni. Of Missouri CZ 5225 LL	6.7	6.3	5.0	6.7	5.7	7.0	6.3	7.0	6.7	5.0	5.7	6.2
Uni. Of Missouri S14-9051R	6.7	6.0	5.3	6.7	5.7	7.0	7.0	7.0	6.7	5.7	6.3	6.4
USG 7489XTS	6.3	6.0	5.0	6.0	5.7	6.7	6.0	7.0	6.7	5.3	6.0	6.1
USG 7496XTS	7.3	6.8	5.0	7.0	5.3	7.0	6.0	7.0	6.7	5.5	6.0	6.3
MSE	486.4	923.4	829.7	706.2	804.9	217.0	561.9	267.9	637.6	839.2	749.3	
CV	31.7	43.4	41.4	38.0	40.8	21.2	34.1	23.6	36.3	42.1	39.4	
P -value	<0.0001	0.0194	0.0089	0.0014	0.0387	0.0047	<0.0001	0.0004	<0.0001	0.0358	0.1255	

Maturity Group IV late Septoria brown spot ratings

Table 14.

Septoria brown spot severity rating (0-9 scale)

Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Stoneville (N)	Tippo	Verona	AVG
AgriGold G4995RX	7.3	7.7	7.3	6.3	5.7	7.7	7.7	7.3	7.3	7.7	7.3	7.2
AGS GS 48X18	6.3	7.7	7.7	7.0	6.7	7.3	8.0	7.0	8.0	8.0	7.3	7.4
Armor X47D22	8.0	7.7	7.3	6.7	6.7	7.0	8.3	7.7	7.7	7.7	7.3	7.5
Armor X48D02	8.0	7.7	7.7	6.7	6.3	7.0	7.7	7.3	8.0	8.0	7.7	7.5
Armor X49D31	7.3	7.3	7.7	5.3	6.7	7.3	7.3	7.3	8.0	7.7	7.3	7.2
Asgrow AG47X9	7.0	8.0	7.3	6.3	7.0	7.0	8.3	7.3	7.7	8.7	8.0	7.5
Asgrow AG48X9	8.0	7.3	8.0	6.3	6.0	7.0	8.0	7.3	8.0	8.3	7.7	7.5
Asgrow AG49X9	7.3	8.0	7.0	6.3	6.0	6.7	7.3	8.0	8.3	8.0	7.0	7.3
Croplan RX4825	7.3	7.7	7.3	6.0	5.3	7.3	7.0	7.7	7.3	8.0	7.0	7.1
Croplan RX4927	7.7	7.7	7.3	6.3	6.3	7.3	8.0	7.7	8.3	8.0	7.3	7.5
Delta Grow DG 4790 RR2	8.0	7.7	6.3	6.7	7.3	7.0	8.3	7.7	8.0	8.3	7.0	7.5
Delta Grow DG 48X45RR2 Xtend	7.0	7.7	5.7	6.3	6.0	7.0	7.3	8.0	7.3	8.7	7.3	7.1
Dyna-Gro S48XT56	6.3	7.0	7.7	6.3	6.7	6.7	7.3	7.0	8.0	8.0	7.3	7.1
Dyna-Gro S49XT39	7.7	8.0	7.7	5.7	6.3	7.3	8.0	8.0	7.7	7.7	7.3	7.4
Go Soy 49G16	7.7	7.7	6.7	6.7	5.7	7.3	7.0	7.7	7.0	7.7	6.7	7.1
Great Heart GT-4721X	7.5	8.0	7.0	6.3	7.0	7.5	8.0	8.0	8.0	8.5	7.0	7.5
Great Heart GT-4809X	7.3	8.0	7.7	6.7	6.3	7.0	7.7	7.7	8.0	8.0	7.3	7.4
Great Heart GT-4833XS	8.0	7.7	7.3	7.0	7.0	7.3	8.0	7.3	7.7	8.3	7.3	7.5
Great Heart GT-4979X	7.7	7.3	7.7	6.0	7.0	7.7	8.0	7.7	7.7	8.0	6.7	7.4
Local Seed Co. AV47W2X	8.0	7.0	7.7	6.3	6.3	7.3	8.0	7.7	8.0	8.3	7.0	7.4
Local Seed Co. AV49W3X	7.7	7.7	7.7	6.3	7.0	7.3	8.3	7.7	8.0	8.0	7.7	7.6
Local Seed Co. LS4889XS	7.7	7.3	7.7	6.3	6.7	8.0	8.0	7.7	8.0	7.3	7.3	7.5
Local Seed Co. LS4966X	6.7	7.7	7.0	5.7	6.3	7.0	7.0	7.0	7.7	8.0	7.3	7.0
Local Seed Co. LS4968XS	7.3	8.0	6.7	6.7	6.0	7.3	7.3	7.7	8.0	8.3	7.0	7.3
Local Seed Co. LS4988X	7.3	7.0	7.7	6.3	6.7	7.3	8.0	7.3	8.3	8.3	7.3	7.4
Mission Seed Solutions MEX4808	7.7	7.7	7.3	6.3	6.0	7.7	8.0	7.0	8.0	8.3	7.0	7.4
Mission Seed Solutions MEX4908	7.3	8.0	8.0	6.7	5.3	7.3	7.7	7.0	7.7	7.7	7.7	7.3
MorSoy MS 4846 RXT	7.0	7.7	7.7	7.0	6.3	7.3	7.3	7.3	7.7	7.7	7.3	7.3
NK Seeds S48-R2X	7.7	7.3	7.3	6.7	6.0	7.3	8.0	7.7	7.7	8.3	7.0	7.4
Petrus Seed 479 GTS	7.0	7.0	7.0	6.5	7.3	7.0	7.7	7.7	7.7	8.0	6.3	7.2
Petrus Seed 4916 GT	7.3	8.0	6.3	5.0	6.3	7.0	7.3	7.3	7.3	8.0	7.3	7.0
Pioneer P48A60X	7.7	7.7	7.0	6.3	6.3	6.7	7.7	8.0	7.7	8.0	7.7	7.3
Progeny Ag. P4757RY	8.0	7.3	7.7	6.3	6.7	6.7	9.0	8.3	8.0	8.3	7.7	7.6
Progeny Ag. P4799RXS	7.3	8.0	7.7	6.3	6.0	7.3	7.7	7.0	7.7	8.7	7.3	7.4
Progeny Ag. P4816RX	6.7	7.7	7.3	6.7	6.7	6.3	7.0	7.3	8.0	8.7	7.3	7.2

Maturity Group IV late Septoria brown spot ratings

Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Stoneville (N)	Tippo	Verona	AVG
Progeny Ag. P4851RX	7.0	7.7	7.7	6.7	6.3	7.3	8.3	8.0	8.0	8.0	7.7	7.5
Progeny Ag. P4955RX	7.0	8.0	7.7	6.3	6.7	7.7	8.0	7.0	8.0	8.3	7.0	7.4
Progeny Ag. P4994RX	7.3	8.0	8.3	6.7	6.3	7.3	8.0	7.0	7.3	7.7	8.0	7.5
Terral REV 47A98	7.7	8.0	7.7	5.7	7.3	7.3	8.3	7.3	7.7	8.0	7.3	7.5
Terral REV 4857X	7.3	7.7	7.7	5.7	7.0	7.7	8.7	7.7	7.3	8.0	7.3	7.5
Terral REV 48A26	7.7	7.3	7.3	6.3	7.0	7.0	8.3	8.0	7.7	8.0	8.0	7.5
Terral REV 4927X	7.3	7.7	7.7	7.0	7.0	6.0	8.0	7.7	7.7	8.3	7.7	7.5
Uni. Of Missouri CZ 5225 LL	7.3	7.7	6.0	6.3	6.3	7.7	7.7	7.7	8.0	7.7	7.0	7.2
Uni. Of Missouri S14-9051R	7.7	7.3	6.3	6.7	6.7	6.3	7.3	7.3	7.3	8.0	6.7	7.1
USG 7489XTS	6.3	8.0	6.7	6.0	6.7	7.0	7.7	7.3	8.0	7.7	7.0	7.1
USG 7496XTS	7.8	7.0	7.0	6.0	6.5	7.8	7.7	7.8	7.3	8.3	7.3	7.3
MSE	954.60	1,002.60	872.10	1,268.50	1,119.60	1,192.70	712.60	1,049.80	997.60	694.90	1,288.20	
CV	44.5	46.2	42.5	51.6	48.1	50.1	38.4	46.6	45.4	38.4	51.6	
<i>p</i> -value	0.0033	0.1277	0.0013	0.3958	0.0773	0.2760	<0.0001	0.0554	0.5189	0.0843	0.6091	

Maturity Group IV late Target spot ratings

Table 15.

Target spot severity rating (0-9 scale)

Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Stoneville (N)	Tippo	Verona	AVG
AgriGold G4995RX	6.3	7.0	7.7	6.3	5.7	5.7	8.0	7.3	8.3	6.3	6.7	6.8
AGS GS 48X18	6.3	6.0	6.3	6.0	6.0	6.7	7.3	6.0	7.7	6.3	6.3	6.5
Armor X47D22	5.7	5.3	7.7	5.3	5.0	6.0	7.7	7.3	7.7	7.0	5.7	6.4
Armor X48D02	8.0	5.3	8.3	5.3	5.3	5.3	9.0	8.0	9.0	7.7	8.0	7.2
Armor X49D31	7.0	6.7	7.0	6.3	5.3	6.3	6.7	7.3	8.0	6.3	7.0	6.7
Asgrow AG47X9	6.0	6.3	7.3	7.3	5.3	6.7	8.3	7.3	7.3	7.3	6.3	6.9
Asgrow AG48X9	6.7	5.7	7.7	6.3	4.7	6.0	9.0	6.7	8.0	7.3	7.0	6.8
Asgrow AG49X9	5.7	7.3	6.3	5.7	5.0	7.0	6.3	6.7	7.7	7.0	6.3	6.5
Croplan RX4825	5.7	5.3	6.7	5.7	5.3	5.7	7.0	6.7	7.0	5.3	5.7	6.0
Croplan RX4927	6.7	6.3	8.3	5.3	6.3	6.0	8.0	6.7	7.7	7.0	6.3	6.8
Delta Grow DG 4790 RR2	6.3	6.0	6.0	5.3	6.0	6.7	8.7	6.7	8.0	6.0	5.7	6.5
Delta Grow DG 48X45RR2 Xtend	5.7	5.3	4.7	6.3	5.3	6.3	7.0	7.0	7.7	6.7	6.0	6.2
Dyna-Gro S48XT56	5.3	6.3	6.7	6.3	5.7	5.7	6.7	6.3	7.3	5.7	5.7	6.2
Dyna-Gro S49XT39	6.7	6.3	7.0	6.0	5.3	5.3	8.0	8.3	7.3	6.3	6.7	6.7
Go Soy 49G16	6.7	5.3	5.7	7.0	5.3	6.0	7.0	7.3	6.3	5.7	6.0	6.2
Great Heart GT-4721X	5.5	6.0	8.0	6.0	5.0	6.5	8.3	6.0	8.3	7.5	6.5	6.7
Great Heart GT-4809X	5.3	5.7	6.3	7.0	6.0	5.0	7.3	7.0	7.3	7.0	5.3	6.3
Great Heart GT-4833XS	7.7	6.3	7.7	7.3	5.0	7.0	9.0	7.3	8.3	7.3	6.0	7.2
Great Heart GT-4979X	6.7	6.7	7.3	6.3	5.7	6.0	8.3	6.3	7.7	6.0	6.3	6.7
Local Seed Co. AV47W2X	7.0	4.3	7.3	6.0	6.0	5.3	8.3	6.0	7.0	7.7	6.3	6.5
Local Seed Co. AV49W3X	6.3	5.3	7.3	6.3	5.7	5.7	7.3	6.3	7.7	7.3	5.7	6.5
Local Seed Co. LS4889XS	7.3	5.7	7.7	7.3	5.3	7.3	9.0	7.0	8.7	6.7	7.0	7.2
Local Seed Co. LS4966X	6.0	6.0	6.7	6.3	5.7	4.7	7.3	6.7	8.3	6.7	6.3	6.4
Local Seed Co. LS4968XS	7.3	6.7	7.3	6.0	5.7	7.0	8.3	8.0	8.0	6.7	6.3	7.0
Local Seed Co. LS4988X	6.0	6.3	7.7	5.3	6.0	5.3	7.7	6.3	7.0	6.3	6.0	6.4
Mission Seed Solutions MEX4808	7.0	6.3	8.7	7.0	6.0	6.3	8.7	6.7	8.7	7.3	6.0	7.2
Mission Seed Solutions MEX4908	7.0	6.3	7.3	7.7	5.7	6.3	8.0	7.7	8.7	6.7	5.7	7.0
MorSoy MS 4846 RXT	5.7	7.0	6.7	7.0	5.0	5.7	7.0	6.3	7.0	6.7	6.0	6.4
NK Seeds S48-R2X	5.7	6.0	7.0	5.7	5.0	6.0	7.0	7.0	7.3	8.0	5.3	6.4
Petrus Seed 479 GTS	5.7	7.0	6.3	6.5	5.7	5.0	7.0	7.3	6.7	7.5	6.0	6.4
Petrus Seed 4916 GT	6.3	5.7	6.0	5.0	5.0	6.0	7.0	7.0	6.3	6.0	6.7	6.1
Pioneer P48A60X	7.3	5.7	6.3	5.7	5.7	6.3	8.0	8.3	7.0	6.3	5.7	6.6
Progeny Ag. P4757RY	7.3	6.0	7.0	6.3	6.0	5.7	8.3	6.7	7.3	7.0	6.3	6.7
Progeny Ag. P4799RXS	6.7	6.0	7.3	7.0	5.3	5.7	7.7	6.7	8.3	6.3	5.3	6.6
Progeny Ag. P4816RX	6.0	6.7	7.0	6.3	5.0	6.3	6.3	6.3	8.0	7.0	5.7	6.4

Maturity Group IV late Target spot ratings

Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Stoneville (N)	Tippo	Verona	AVG
Progeny Ag. P4851RX	7.0	6.3	7.3	6.3	5.3	6.0	8.0	6.3	7.7	6.3	5.7	6.6
Progeny Ag. P4955RX	6.3	5.3	7.0	6.3	5.0	7.3	8.0	6.3	7.7	7.5	6.0	6.6
Progeny Ag. P4994RX	6.0	6.3	7.7	6.7	5.3	7.3	7.0	6.7	7.0	5.3	6.3	6.6
Terral REV 47A98	5.3	6.3	6.7	4.3	5.7	7.3	8.0	6.3	8.0	7.3	5.3	6.6
Terral REV 4857X	6.0	5.7	6.7	5.3	5.0	5.3	7.7	7.7	7.3	6.7	6.3	6.5
Terral REV 48A26	7.0	6.0	5.7	5.7	5.7	6.0	7.0	6.7	7.0	6.0	6.3	6.4
Terral REV 4927X	5.7	5.0	7.0	5.3	5.3	6.0	6.3	6.3	6.7	6.0	6.0	6.3
Uni. Of Missouri CZ 5225 LL	7.0	6.3	6.7	6.3	4.7	6.3	9.0	6.7	7.7	6.3	7.0	6.3
Uni. Of Missouri S14-9051R	6.0	5.3	7.0	5.7	5.7	6.0	7.0	7.0	7.0	7.0	5.3	6.0
USG 7489XTS	6.0	6.7	6.0	6.7	5.3	6.3	6.3	6.0	7.3	6.3	5.7	6.7
USG 7496XTS	6.8	6.0	8.0	5.7	5.3	4.8	8.0	7.0	8.3	7.5	6.3	6.3
MSE	959.80	1,124.10	1,161.10	1,315.90	1,241.80	1,215.10	660.80	1,315.20	1,137.40	1,223.90	1,360.70	
CV	44.6	48.9	49.0	52.6	50.7	50.5	37.0	52.2	48.5	51.8	53.1	
<i>p</i> -value	0.0003	0.0525	0.0091	0.2408	0.4714	0.1248	<0.0001	0.1700	0.0096	0.0902	0.4483	

Maturity Group IV LL Cercospora leaf blight ratings

Table 16. **Cercospora leaf blight severity rating (0-9 scale)**

Brand Variety	Brooksville (N)	Longwood	Raymond (N)	Stoneville-clay	Verona (N)	AVG
Credenz CZ 3601 LL	6.0	7.0	7.0	5.3	6.0	6.3
Credenz CZ 3841 LL	6.3	7.0	6.3	6.0	6.0	6.3
Credenz CZ 4105 LL	6.0	7.0	6.3	5.3	6.0	6.1
Credenz CZ 4222 LL	5.7	7.0	5.7	5.0	6.7	6.0
Credenz CZ 4308 LL	6.0	7.0	5.7	5.0	5.7	5.9
Credenz CZ 4540 LL	5.7	5.0	4.7	5.3	5.0	5.1
Credenz CZ 4548 LL	5.0	5.0	5.3	5.0	5.0	5.1
Credenz CZ 4649 LL	5.0	5.0	4.3	5.3	5.0	4.9
Credenz CZ 4748 LL	6.0	5.0	5.0	5.0	5.7	5.3
Credenz CZ 4820 LL	6.0	5.0	5.3	5.0	5.3	5.3
Credenz CZ 4918 LL	5.7	5.0	4.3	4.7	5.0	4.9
Credenz CZ 4938 LL	5.0	4.3	4.7	5.0	5.0	4.8
Delta Grow DG 4582 LL/STS	5.3	5.3	5.0	5.0	5.0	5.1
Delta Grow DG 4977 LL/STS	5.0	4.3	4.7	5.0	5.0	4.8
Dyna-Gro S45LL97	5.3	5.0	4.7	5.0	5.3	5.1
Dyna-Gro S49LL34	5.0	4.7	4.7	5.0	5.0	4.9
Pioneer P44A08L	6.7	7.0	5.3	5.0	6.0	6.0
Pioneer P47A76L	6.0	5.3	5.0	5.0	5.0	5.3
Terral REV 46L99	5.0	5.0	4.7	5.3	5.3	5.1
Terral REV 47L38	6.3	5.3	5.0	5.0	5.0	5.3
Terral REV 49L88	5.3	5.3	5.0	5.0	5.0	5.1
MSE	136.3	61.7	135.9	130.5	84.7	
CV	36.5	25.1	38.9	35.7	31.3	
<i>p</i> -value	<0.0001	<0.0001	0.0062	0.1505	<0.0001	

Maturity Group IV LibertyLink Septoria brown spot ratings

Table 17.

Septoria brown spot severity rating (0-9 scale)

Brand Variety	Brooksville (N)	Longwood	Raymond (N)	Stoneville-clay	Verona (N)	AVG
Credenz CZ 3601 LL	7.7	7.0	4.3	7.0	.	6.5
Credenz CZ 3841 LL	8.0	7.3	6.3	8.3	7.0	7.4
Credenz CZ 4105 LL	8.0	7.7	7.3	7.0	6.0	7.2
Credenz CZ 4222 LL	7.0	6.3	7.0	7.3	6.7	6.9
Credenz CZ 4308 LL	7.7	6.7	7.0	7.0	7.7	7.2
Credenz CZ 4540 LL	8.3	6.3	7.3	7.3	6.7	7.2
Credenz CZ 4548 LL	7.7	6.3	6.7	6.7	6.7	6.8
Credenz CZ 4649 LL	7.7	5.3	6.0	7.7	6.7	6.7
Credenz CZ 4748 LL	7.7	6.0	7.0	6.7	7.7	7.0
Credenz CZ 4820 LL	7.7	5.7	6.0	7.0	7.3	6.7
Credenz CZ 4918 LL	8.3	5.7	6.0	6.3	6.7	6.6
Credenz CZ 4938 LL	7.3	5.3	6.3	7.0	6.3	6.5
Delta Grow DG 4582 LL/STS	7.3	5.3	6.0	7.7	6.0	6.5
Delta Grow DG 4977 LL/STS	7.7	5.3	5.7	7.3	6.3	6.5
Dyna-Gro S45LL97	7.0	6.3	7.7	7.3	7.0	7.1
Dyna-Gro S49LL34	7.7	4.7	5.7	6.0	6.3	6.1
Pioneer P44A08L	7.7	7.3	7.7	8.0	7.0	7.5
Pioneer P47A76L	8.0	6.7	4.3	7.0	7.0	6.6
Terral REV 46L99	8.0	6.7	6.0	7.7	6.7	7.0
Terral REV 47L38	7.3	6.7	4.7	7.7	7.0	6.7
Terral REV 49L88	8.0	6.3	4.3	6.3	6.7	6.3
MSE	328.3	159.2	161.0	263.1	230.9	
CV	56.6	40.4	37.3	50.7	51.9	
<i>p</i> -value	0.8858	0.0007	0.0073	0.1582	0.3087	

Maturity Group IV LL Target spot ratings

Table 18. Target spot severity rating (0-9 scale)

Brand Variety	Brooksville (N)	Longwood	Raymond (N)	Stoneville-clay	Verona (N)	AVG
Credenz CZ 3601 LL	7.3	4.3	5.0	6.7	.	5.8
Credenz CZ 3841 LL	7.7	5.0	7.0	6.7	6.0	6.5
Credenz CZ 4105 LL	8.0	4.0	6.3	6.7	6.0	6.2
Credenz CZ 4222 LL	7.3	4.7	6.0	6.7	5.5	6.0
Credenz CZ 4308 LL	7.7	4.0	5.0	5.7	6.3	5.7
Credenz CZ 4540 LL	7.7	4.3	6.3	6.0	5.7	6.0
Credenz CZ 4548 LL	7.7	5.0	6.3	6.0	6.0	6.2
Credenz CZ 4649 LL	8.0	4.7	5.7	8.0	6.7	6.6
Credenz CZ 4748 LL	7.3	5.3	7.0	9.0	8.0	7.3
Credenz CZ 4820 LL	8.3	6.0	6.7	8.0	7.7	7.3
Credenz CZ 4918 LL	8.3	4.7	5.7	6.3	6.3	6.3
Credenz CZ 4938 LL	7.7	4.3	5.7	8.0	6.0	6.3
Delta Grow DG 4582 LL/STS	7.7	4.0	6.3	6.3	6.0	6.1
Delta Grow DG 4977 LL/STS	7.7	5.0	5.7	6.3	6.0	6.1
Dyna-Gro S45LL97	7.3	5.0	5.3	8.0	6.3	6.4
Dyna-Gro S49LL34	8.0	4.7	5.7	6.0	6.0	6.1
Pioneer P44A08L	8.0	4.7	7.0	6.3	6.3	6.5
Pioneer P47A76L	7.7	4.7	4.0	6.7	6.7	5.9
Terral REV 46L99	8.0	5.0	6.0	7.0	6.0	6.4
Terral REV 47L38	7.3	4.7	5.0	6.3	6.3	5.9
Terral REV 49L88	7.7	5.3	5.3	5.7	6.3	6.1
MSE	338.7	278.5	146.6	257.0	166.9	
CV	57.5	53.8	35.6	50.1	45.3	
<i>p</i> -value	0.939	0.5712	0.2189	0.0652	0.0732	

Table 19.

Maturity Group V Conv Cercospora leaf blight ratings

Cercospora leaf blight severity rating (0-9 scale)			
Brand Variety	Brooksville (N)	Stoneville-clay	AVG
Go Soy 51C17	6.0	6.0	6.0
Go Soy 53C16	6.0	6.0	6.0
Go Soy 56C16	6.0	6.0	6.0
Univ. Of Missouri M05201D CONV(S12-4718C)	5.7	6.3	6.0
Univ. Of Missouri S11-20242C	5.7	6.0	5.8
Univ. Of Missouri S13-1955C	6.0	6.0	6.0
Univ. Of Missouri S15-10434C	6.0	6.0	6.0
MSE	8.8	5.3	
CV	26.9	20.8	
p-value	0.4682	0.4682	

Table 20.

Maturity Group V Conventional Septoria brown spot ratings

Septoria brown spot severity rating (0-9 scale)			
Brand Variety	Brooksville (N)	Stoneville-clay	AVG
Go Soy 51C17	7.3	8.0	7.7
Go Soy 53C16	7.0	7.3	7.2
Go Soy 56C16	7.3	8.0	7.7
Univ. Of Missouri M05201D CONV(S12-4718C)	7.3	8.0	7.7
Univ. Of Missouri S11-20242C	7.7	7.3	7.5
Univ. Of Missouri S13-1955C	7.7	7.3	7.5
Univ. Of Missouri S15-10434C	7.7	7.7	7.7
MSE	34.1	23.6	
CV	53.1	44.2	
<i>p</i> -value	0.7148	0.2422	

Table 21.

Maturity Group V Conv Southern blight ratings

Brand Variety	Southern blight severity rating (0-9 scale)		
	Brooksville (N)	Stoneville-clay	AVG
Go Soy 51C17	5.7	1.7	3.7
Go Soy 53C16	2.0	1.0	1.5
Go Soy 56C16	0.0	1.0	0.5
Univ. Of Missouri M05201D CONV(S12-4718C	0.3	1.0	0.7
Univ. Of Missouri S11-20242C	3.3	3.0	3.2
Univ. Of Missouri S13-1955C	0.3	1.3	0.8
Univ. Of Missouri S15-10434C	0.0	1.0	0.5
MSE	4.4	7.1	
CV	19.1	24.2	
p -value	<0.0001	0.0008	

Table 22.

Maturity Group V Conv Target spot ratings

Brand Variety	Target spot severity rating (0-9 scale)		AVG
	Brooksville (N)	Stoneville-clay	
Go Soy 51C17	4.7	8.3	6.5
Go Soy 53C16	6.3	7.7	7.0
Go Soy 56C16	6.0	7.7	6.8
Uni. Of Missouri M05201D CONV(S12-47	7.3	7.3	7.3
Uni. Of Missouri S11-20242C	5.7	8.3	7.0
Uni. Of Missouri S13-1955C	5.0	7.3	6.2
Uni. Of Missouri S15-10434C	6.0	7.7	6.8
	MSE	25.1	32.5
	CV	45.6	51.8
	<i>p</i> -value	0.0720	0.4246

Table 23. MG V Early Cercospora leaf blight ratings.

Cercospora leaf blight severity rating (0-9 scale)										
Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Verona (N)	AVG
AgriGold G5000RX	7.0	7.0	6.7	7.0	6.7	7.0	6.0	7.0	6.7	6.8
AgriGold G5288RX	6.0	6.3	6.0	7.0	6.3	7.0	6.0	7.0	6.3	6.4
AGS GS 51X18S	5.7	6.0	6.3	7.0	6.0	6.3	6.0	7.0	6.3	6.3
Armor X50D13	6.3	7.3	6.7	7.0	6.7	7.0	6.3	7.0	6.0	6.7
Armor X51D77	5.3	5.3	5.7	6.0	6.0	6.7	6.0	6.3	6.0	5.9
Armor X52D71	6.0	6.3	6.3	7.0	6.0	7.0	6.0	7.0	6.3	6.4
Armor X55D57	5.0	6.0	6.0	6.0	6.0	6.3	6.0	6.0	6.0	5.9
Asgrow AG52X9	6.3	6.7	6.7	7.0	6.3	7.0	6.0	7.0	6.0	6.6
Asgrow AG53X9	7.0	6.7	7.0	7.0	6.3	6.7	6.7	7.0	6.3	6.7
Asgrow AG54X9	6.0	6.0	6.0	7.0	6.0	6.3	6.0	6.0	6.0	6.1
Asgrow AG55X7	5.7	6.0	6.0	6.0	6.3	6.3	6.0	6.0	6.0	6.0
Croplan(Mid-south) RX 5016 S	7.0	7.0	6.7	7.0	6.3	7.0	6.3	7.0	6.7	6.8
Delta Grow DG 5170 RR2/STS	5.0	6.0	6.0	6.3	6.0	5.7	6.0	6.7	6.0	6.0
Delta Grow DG 52X15 Xtend	6.3	6.7	6.7	7.0	6.3	7.0	6.0	7.0	6.0	6.6
Dyna-Gro S52XT08	5.7	6.7	6.0	6.0	6.0	6.3	6.0	5.7	6.0	6.0
Dyna-Gro S56XT99	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.9
Dyna-Gro SX18652XS	5.7	5.3	6.0	6.0	5.7	6.0	6.0	6.3	6.0	5.9
Dyna-Gro SX18854XT	6.0	6.0	6.0	6.3	6.0	6.3	6.0	6.0	6.0	6.1
Go Soy 50G17	5.7	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Go Soy 54G16	5.7	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Great Heart GT-5324X	6.0	6.0	6.0	6.3	6.0	6.0	6.0	6.3	6.0	6.1
Local Seed Co. LS5087X	5.7	7.0	7.0	7.0	6.0	7.0	6.0	7.0	6.0	6.5
NK Seeds S50-G9XS	6.7	7.0	7.0	7.0	6.7	7.0	6.3	7.0	6.3	6.8
Pioneer P54A75X	5.7	6.0	6.0	6.0	6.0	6.0	6.0	6.3	6.0	6.0
Progeny Ag. P5016RXS	7.0	7.0	6.7	7.0	6.0	7.0	6.0	7.0	7.0	6.7
Progeny Ag. P5018RX	6.3	7.0	6.7	7.0	6.0	6.7	5.7	7.0	6.3	6.5
Progeny Ag. P5226RYS	5.7	6.0	6.0	6.3	6.0	6.3	6.0	6.7	6.3	6.1
Progeny Ag. P5252RX	5.0	5.7	6.0	5.3	5.0	5.7	6.0	6.0	6.0	5.6
Progeny Ag. P5279RXS	7.0	7.0	6.7	7.0	6.7	6.7	6.0	7.0	7.0	6.8
Progeny Ag. P5554RX	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.9
Progeny Ag. P5688RX	5.3	6.0	6.0	6.3	6.0	6.0	6.0	6.0	6.0	6.0
Terral REV 51A56	6.7	6.3	7.0	7.0	6.7	7.0	6.7	6.3	6.0	6.6
Terral REV 52A98	6.0	6.3	6.0	6.0	6.0	6.3	6.0	6.0	6.0	6.1
Terral REV 55A67	6.0	6.0	6.0	6.0	6.3	6.3	6.0	6.0	6.0	6.1
Terral REV 56A58	5.7	6.0	6.0	6.0	6.0	6.3	6.0	6.0	6.0	6.0
Uni. Of Arkansas R14-14797 RR	5.3	5.7	6.0	6.0	5.7	6.0	6.0	5.7	6.0	5.8
Uni. Of Missouri S14-9017R	6.7	6.3	6.3	6.7	6.3	6.7	6.0	7.0	6.3	6.5
MSE	361.3	269.1	282.8	170.6	426.1	463.9	155.7	186.5	252.4	
CV	33.9	29.3	30.0	23.3	36.9	38.8	22.3	24.4	28.0	
p -value	<0.0001	<0.0001	<0.0001	<0.0001	0.0117	<0.0001	0.0077	<0.0001	0.0001	

Table 24.

Maturity Group V early Septoria brown spot ratings

Septoria brown spotseverity rating (0-9 scale)										
Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Verona (N)	AVG
AgriGold G5000RX	8.0	7.3	7.7	6.7	7.7	7.7	8.0	8.0	7.7	7.6
AgriGold G5288RX	8.3	7.3	7.7	6.7	6.7	7.3	8.0	8.0	7.0	7.4
AGS GS 51X18S	8.0	7.0	8.0	7.3	7.0	7.3	8.0	8.3	7.0	7.6
Armor X50D13	8.3	7.3	8.0	6.0	6.7	7.7	8.0	8.3	7.0	7.5
Armor X51D77	7.7	7.3	7.7	6.0	6.7	7.7	8.0	8.0	7.3	7.4
Armor X52D71	8.0	7.3	8.3	6.7	7.0	7.7	7.7	7.7	7.7	7.6
Armor X55D57	8.7	7.7	8.3	7.7	6.3	7.7	8.7	7.7	7.7	7.8
Asgrow AG52X9	7.3	7.3	8.0	7.0	7.3	7.3	8.3	7.7	7.0	7.5
Asgrow AG53X9	8.3	7.3	7.3	7.3	6.7	7.3	8.0	8.0	7.7	7.6
Asgrow AG54X9	7.7	7.3	8.0	7.0	6.7	7.3	8.0	7.7	7.5	7.5
Asgrow AG55X7	7.3	7.0	8.0	6.7	7.0	7.0	8.0	7.7	6.7	7.3
Croplan(Mid-south) RX 5016 S	7.7	7.3	8.0	6.3	6.3	6.7	8.0	7.7	7.0	7.2
Delta Grow DG 5170 RR2/STS	8.0	7.0	6.3	6.7	7.0	8.0	7.3	7.7	7.0	7.2
Delta Grow DG 52X15 Xtend	8.0	7.7	7.7	6.0	7.0	8.0	8.0	8.3	7.0	7.5
Dyna-Gro S52XT08	7.0	7.3	7.3	7.0	6.7	7.0	8.0	8.0	7.0	7.3
Dyna-Gro S56XT99	8.7	7.3	8.7	6.7	7.0	7.0	8.0	7.7	8.0	7.7
Dyna-Gro SX18652XS	7.3	7.3	7.3	6.3	6.7	7.0	8.0	8.3	7.3	7.3
Dyna-Gro SX18854XT	7.7	7.0	8.3	6.7	7.3	7.0	8.0	8.0	7.0	7.4
Go Soy 50G17	7.7	7.7	7.3	6.7	6.3	7.0	8.0	7.7	8.0	7.4
Go Soy 54G16	8.0	6.7	7.0	6.7	6.3	7.0	8.0	8.0	7.7	7.3
Great Heart GT-5324X	7.7	7.7	7.7	7.3	7.3	7.0	8.0	7.3	7.5	7.5
Local Seed Co. LS5087X	8.3	7.7	8.0	6.7	7.3	8.0	8.3	7.7	6.7	7.6
NK Seeds S50-G9XS	7.7	7.3	8.0	7.0	6.3	8.0	8.3	8.0	7.0	7.5
Pioneer P54A75X	8.0	7.7	8.0	7.3	7.3	7.0	8.3	8.0	7.7	7.7
Progeny Ag. P5016RXS	8.3	7.7	8.0	6.7	6.7	7.7	8.0	8.0	7.7	7.6
Progeny Ag. P5018RX	8.3	7.7	7.7	6.7	7.0	7.7	8.0	8.0	7.5	7.6
Progeny Ag. P5226RYS	7.3	7.7	7.7	6.3	6.7	7.3	7.7	7.3	7.7	7.3
Progeny Ag. P5252RX	7.7	7.0	7.3	6.7	6.7	7.3	7.7	8.0	6.7	7.2
Progeny Ag. P5279RXS	8.0	8.0	7.3	6.7	6.7	7.3	7.7	8.0	7.0	7.4
Progeny Ag. P5554RX	8.3	7.3	8.3	6.7	7.3	7.0	8.3	8.0	7.0	7.6
Progeny Ag. P5688RX	8.0	7.0	7.3	6.3	7.3	7.0	7.7	7.3	7.3	7.3
Terral REV 51A56	7.7	7.3	8.3	7.0	6.3	6.7	7.7	8.0	7.3	7.4
Terral REV 52A98	8.0	7.7	7.3	6.3	6.7	7.3	8.0	8.0	6.3	7.3
Terral REV 55A67	8.3	7.0	7.3	6.3	7.3	6.3	7.7	8.0	7.7	7.3
Terral REV 56A58	8.0	7.0	8.0	6.3	7.0	7.3	8.0	8.0	7.3	7.4
Uni. Of Arkansas R14-14797 RR	7.7	7.3	7.7	6.3	7.0	7.3	7.7	7.7	7.7	7.4
Uni. Of Missouri S14-9017R	7.0	7.7	6.7	6.0	7.0	7.0	7.7	7.0	7.0	7.0
MSE	641.7	699.9	627.4	823.5	889.1	545.6	449.3	465.7	591.5	
CV	45.2	47.2	44.7	51.2	53.2	42.1	37.9	38.5	46.8	
p-value	0.1904	0.5922	0.0289	0.3427	0.7404	0.0052	0.3111	0.0596	0.1306	

Table 25.

Maturity Group V early Southern blight ratings

Brand Variety	Southern blight severity rating (0-9 scale)									AVG
	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Verona (N)	
AgriGold G5000RX	1.3	3.7	1.0	1.7	1.7	2.7	1.0	2.7	5.3	2.3
AgriGold G5288RX	1.0	2.0	1.7	1.7	2.0	2.0	1.0	2.3	5.7	2.1
AGS GS 51X18S	1.3	6.0	1.7	3.3	3.3	2.7	1.0	4.0	5.7	3.2
Armor X50D13	2.3	3.7	3.7	1.7	3.0	4.0	1.7	3.7	6.7	3.4
Armor X51D77	2.3	0.0	2.3	1.7	1.3	0.7	1.3	2.3	6.3	2.0
Armor X52D71	1.7	1.0	1.7	2.7	2.0	3.7	1.0	3.3	3.7	2.3
Armor X55D57	1.7	0.0	2.7	1.3	1.7	1.7	1.0	3.7	6.7	2.3
Asgrow AG52X9	2.0	4.7	3.7	2.3	2.7	5.3	1.0	4.0	7.0	3.6
Asgrow AG53X9	3.0	5.0	3.7	2.3	2.7	2.7	1.7	3.7	6.7	3.5
Asgrow AG54X9	2.3	0.7	1.7	1.7	1.3	2.7	1.0	4.7	8.0	2.7
Asgrow AG55X7	2.0	1.7	3.0	2.0	3.7	3.3	1.0	3.3	5.7	2.9
Croplan(Mid-south) RX 5016 S	2.3	4.3	1.7	2.0	1.0	1.0	1.0	3.3	5.0	2.4
Delta Grow DG 5170 RR2/STS	1.7	1.3	1.0	1.7	2.0	1.3	1.0	3.7	6.7	2.3
Delta Grow DG 52X15 Xtend	3.7	3.7	2.3	1.7	3.3	4.3	1.3	5.3	7.0	3.6
Dyna-Gro S52XT08	4.3	6.7	6.0	4.0	5.0	6.0	4.0	6.3	8.3	5.6
Dyna-Gro S56XT99	1.3	0.7	1.7	1.0	1.7	0.7	1.3	3.7	5.7	2.0
Dyna-Gro SX18652XS	4.0	1.3	3.0	1.0	2.7	0.0	1.3	4.0	6.7	2.7
Dyna-Gro SX18854XT	3.0	1.3	3.0	3.0	2.3	1.7	2.3	3.7	7.7	3.1
Go Soy 50G17	2.7	2.0	7.0	3.7	4.3	2.0	5.0	6.3	8.7	4.6
Go Soy 54G16	1.7	0.0	4.3	2.3	1.7	1.0	1.3	4.7	7.0	2.7
Great Heart GT-5324X	4.0	6.0	6.7	3.7	4.3	7.3	4.7	7.0	8.0	5.7
Local Seed Co. LS5087X	2.3	4.7	3.3	1.7	2.3	4.0	1.0	3.7	7.0	3.3
NK Seeds S50-G9XS	3.3	5.0	3.3	2.7	5.7	6.0	2.0	4.0	6.0	4.2
Pioneer P54A75X	3.7	1.0	3.7	3.0	4.0	2.3	2.0	4.3	7.0	3.4
Progeny Ag. P5016RXS	1.3	3.0	2.0	1.7	1.3	4.0	1.0	4.3	5.7	2.7
Progeny Ag. P5018RX	2.7	3.7	3.7	2.0	3.3	5.0	1.7	4.0	6.7	3.6
Progeny Ag. P5226RYS	3.0	0.7	1.0	1.3	2.0	1.7	1.0	3.7	6.7	2.3
Progeny Ag. P5252RX	2.0	0.0	1.3	1.0	1.0	0.3	1.3	2.3	7.0	1.8
Progeny Ag. P5279RXS	2.0	0.7	2.3	1.0	2.7	0.3	1.3	2.7	4.7	2.0
Progeny Ag. P5554RX	1.7	0.3	2.0	1.3	2.7	0.7	1.3	2.3	6.7	2.1
Progeny Ag. P5688RX	2.0	0.3	5.7	1.3	1.3	1.0	2.7	2.7	6.3	2.6
Terral REV 51A56	4.3	5.0	1.3	2.7	5.7	3.3	2.0	4.3	6.0	3.9
Terral REV 52A98	3.7	2.0	5.7	3.0	4.3	2.3	2.7	4.3	8.3	4.0
Terral REV 55A67	2.3	0.3	1.0	1.3	2.0	2.0	1.0	2.7	6.7	2.1
Terral REV 56A58	2.0	0.3	1.0	1.3	2.0	0.7	1.7	4.3	6.7	2.2
Univ. Of Arkansas R14-14797 RR	1.7	0.0	1.3	1.7	1.0	1.3	1.0	2.0	6.0	1.8
Univ. Of Missouri S14-9017R	1.0	0.0	1.0	2.0	4.0	0.3	1.0	2.0	3.7	1.7
MSE	588.2	284.7	358.9	520.4	579.7	459.9	378.8	664.8	486.2	
CV	43.3	30.1	33.8	40.7	42.9	38.6	34.8	46.0	41.1	
p-value	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0006	0.0003	

Table 26. MG V Early Target Spot Ratings.

Brand Variety	Target spot severity rating (0-9 scale)									AVG
	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Verona (N)	
AgriGold G5000RX	7.0	6.0	8.0	7.3	6.3	7.3	8.3	7.7	6.7	7.2
AgriGold G5288RX	7.3	5.3	8.7	7.7	6.7	5.7	8.3	8.7	6.3	7.2
AGS GS 51X18S	7.7	6.0	8.0	7.3	6.3	6.7	7.7	7.3	6.0	7.0
Armor X50D13	8.0	5.7	8.7	6.7	5.7	7.0	8.3	7.0	6.3	7.0
Armor X51D77	6.3	6.0	6.7	6.7	5.3	7.3	7.0	7.0	6.3	6.5
Armor X52D71	7.3	4.7	8.3	8.0	6.3	7.3	8.7	7.7	7.3	7.3
Armor X55D57	7.7	7.3	7.7	7.7	5.7	6.3	8.0	7.7	7.0	7.2
Asgrow AG52X9	7.0	5.3	7.3	7.3	6.3	7.0	7.7	7.7	7.0	7.0
Asgrow AG53X9	8.3	5.3	8.3	7.3	5.7	6.3	9.0	7.0	5.7	7.0
Asgrow AG54X9	6.3	5.3	7.0	7.3	7.0	7.7	8.0	7.0	6.0	6.9
Asgrow AG55X7	7.0	5.3	7.7	6.7	6.0	5.7	8.0	7.7	6.0	6.7
Croplan(Mid-south) RX 5016 S	6.7	5.3	8.0	7.0	5.7	7.3	8.7	7.3	6.3	6.9
Delta Grow DG 5170 RR2/STS	6.7	6.3	6.0	7.3	6.3	6.7	7.3	6.7	6.3	6.6
Delta Grow DG 52X15 Xtend	7.3	6.0	7.0	7.3	6.0	6.3	8.3	7.3	6.0	6.9
Dyna-Gro S52XT08	6.7	6.0	7.7	8.0	5.7	6.7	7.3	7.7	7.0	7.0
Dyna-Gro S56XT99	7.7	5.3	7.0	7.3	6.7	7.3	8.0	7.3	6.7	7.0
Dyna-Gro SX18652XS	6.7	5.7	7.0	7.7	6.7	7.7	8.3	7.3	6.3	7.0
Dyna-Gro SX18854XT	7.3	5.3	7.7	6.7	6.0	7.0	7.7	7.0	6.3	6.8
Go Soy 50G17	6.7	6.0	6.0	7.7	5.7	6.7	8.0	7.7	7.0	6.8
Go Soy 54G16	7.0	5.0	6.0	7.0	5.7	5.7	8.3	7.0	7.3	6.6
Great Heart GT-5324X	6.7	6.0	6.7	7.7	6.0	7.0	7.7	6.7	6.5	6.8
Local Seed Co. LS5087X	8.3	6.3	7.7	7.0	6.0	7.0	8.3	7.7	6.3	7.2
NK Seeds S50-G9XS	6.7	4.7	7.0	7.7	6.0	6.7	8.3	7.0	6.5	6.7
Pioneer P54A75X	7.0	5.7	7.3	7.3	5.7	6.3	8.0	7.0	7.0	6.8
Progeny Ag. P5016RXS	7.0	5.7	8.7	7.0	5.7	7.7	8.7	7.3	6.3	7.1
Progeny Ag. P5018RX	8.3	6.0	7.0	7.3	6.0	6.7	8.3	7.0	6.0	7.0
Progeny Ag. P5226RYS	7.0	6.0	6.3	7.7	6.7	7.0	7.3	6.3	6.0	6.7
Progeny Ag. P5252RX	6.7	5.7	6.3	6.7	6.7	6.0	7.0	7.0	5.7	6.4
Progeny Ag. P5279RXS	6.7	6.7	9.0	8.0	6.0	7.7	8.7	9.0	8.3	7.8
Progeny Ag. P5554RX	7.7	5.7	8.3	8.0	6.3	7.7	8.0	8.0	6.3	7.3
Progeny Ag. P5688RX	7.7	5.3	5.7	6.7	6.3	7.0	7.0	7.3	6.0	6.6
Terral REV 51A56	6.7	5.0	7.3	7.3	5.3	7.3	7.7	8.3	6.7	6.9
Terral REV 52A98	7.0	6.0	7.7	6.3	6.0	7.0	8.7	7.0	6.0	6.9
Terral REV 55A67	7.7	5.3	6.7	6.0	6.3	6.3	8.0	7.7	6.7	6.7
Terral REV 56A58	7.3	5.7	6.0	7.7	6.0	8.0	8.0	8.3	6.3	7.0
Univ. Of Arkansas R14-14797 RR	7.0	6.7	6.7	7.7	5.7	7.3	7.7	7.3	6.0	6.9
Univ. Of Missouri S14-9017R	6.3	5.3	5.7	7.0	6.0	8.0	7.3	6.0	6.0	6.4
MSE	874.2	1011.7	432.3	845.5	795.2	846.8	546.1	761.9	571.1	
CV	52.8	56.8	37.1	51.9	50.4	52.4	41.7	49.3	45.9	
p -value	0.3850	0.7857	<0.0001	0.3618	0.6482	0.3228	0.0006	0.0816	0.0456	

Table 27.

Maturity Group V late Cercospora leaf blight ratings

Cercospora leaf blight severity rating (0-9 scale)

Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Verona (N)	AVG
Progeny Ag. P5752RY	5.0	6.0	6.0	6.0	5.3	6.0	6.0	6.0	6.0	5.8
USG 75B75R	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.9
MSE	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	
CV	0.0	0.0	0.0	0.0	34.9	0.0	0.0	0.0	0.0	
p-value	.	.	.	.	0.1835	.	.	.	.	

Table 28.

Maturity Group V late Septoria brown spot ratings

Septoria brown spot severity rating (0-9 scale)										
Brand Variety	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Verona (N)	AVG
Progeny Ag. P5752RY	7.7	7.7	7.0	6.3	6.3	7.7	8.0	7.7	7.0	7.3
USG 75B75R	7.7	7.7	8.0	6.0	7.3	7.3	8.3	8.7	7.0	7.6
MSE	4.5	0.0	1.6	1.5	2.5	6.0	1.0	2.5	3.1	
CV	60.6	0.0	36.4	34.9	45.6	13.5	28.6	45.6	50.5	
<i>p</i> -value	1.0000	.	0.1946	0.4226	0.2149	0.6667	0.1817	0.2149	1.0000	

Table 29.

Maturity Group V late Southern blight ratings

Brand Variety	Southern blight severity rating (0-9 scale)									AVG
	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Verona (N)	
Progeny Ag. P5752RY	0.7	0.0	1.3	1.0	1.0	2.0	1.3	4.3	6.0	2.0
USG 75B75R	1.0	0.3	1.7	1.3	4.7	3.0	1.0	3.7	7.3	2.7
MSE	1.5	1.5	0.2	1.5	1.5	6.2	1.0	4.2	1.5	
CV	35.0	34.9	11.7	34.9	34.9	16.5	28.6	58.3	12.0	
<i>p</i> -value	0.4226	0.4226	0.4226	0.4226	0.1835	0.4975	0.1817	0.4226	0.1835	

Table 30.

Maturity Group V late Target spot ratings

Brand Variety	Target spot severity rating (0-9 scale)									AVG
	Brooksville	Brooksville (N)	Clarksdale	Longwood	Olive Branch (N)	Raymond (N)	Stoneville-clay	Stoneville-loam	Verona (N)	
Progeny Ag. P5752RY	8.0	6.0	7.0	6.7	5.7	7.0	7.3	7.0	6.0	6.7
USG 75B75R	8.3	7.0	7.7	6.3	6.0	8.0	8.0	8.0	6.0	7.3
MSE	1.5	0.0	2.7	1.5	1.5	1.5	1.8	0.0	0.0	
CV	35.0	0.0	46.7	34.9	34.9	35.5	37.8	0.0	0.0	
p -value	0.4226	<0.0001	0.4226	0.4226	0.4226	0.2419	0.1443	<0.0001	.	

Table 31. Maturity Group V LL Cercospora leaf blight ratings

Cercospora leaf blight severity rating (0-9 scale)						
Brand Variety	Brooksville (N)	Longwood	Raymond (N)	Stoneville-clay	Verona (N)	AVG
Credenz CZ 5147 LL	5.0	6.0	6.0	6.3	6.0	5.9
Credenz CZ 5150 LL	5.3	5.7	6.3	5.5	6.0	5.8
Credenz CZ 5225 LL	5.0	6.0	6.0	6.0	6.0	5.8
Credenz CZ 5242 LL	5.0	6.0	6.0	5.0	6.0	5.6
Credenz CZ 5328 LL	5.7	6.0	6.0	6.0	6.0	5.9
Credenz CZ 5445 LL	5.3	6.0	6.0	5.8	6.0	5.8
MSE	15.3	4.5	4.5	10.7	0.0	
CV	41.2	22.3	22.3	34.4	0.0	
<i>p</i> -value	0.3852	0.4651	0.4651	0.0280	.	

Table 32.

Maturity Group V LibertyLink Septoria brown spot ratings

Septoria brown spot severity rating (0-9 scale)						
Brand Variety	Brooksville (N)	Longwood	Raymond (N)	Stoneville-clay	Verona (N)	AVG
Credenz CZ 5147 LL	7.3	7.0	7.3	8.3	7.3	7.5
Credenz CZ 5150 LL	7.7	7.0	7.7	8.0	7.0	7.5
Credenz CZ 5225 LL	7.7	7.0	7.7	8.7	6.3	7.5
Credenz CZ 5242 LL	7.3	6.7	7.0	7.7	6.7	7.1
Credenz CZ 5328 LL	7.3	6.7	7.0	8.0	7.0	7.2
Credenz CZ 5445 LL	7.7	6.7	7.3	8.3	6.7	7.3
MSE	13.5	27.4	18.9	12.1	15.7	
CV	38.7	55.1	45.8	36.6	41.7	
<i>p</i> -value	0.0126	0.9815	0.3993	0.2024	0.2643	

Table 33.

Maturity Group V LL Southern blight ratings

Brand Variety	Southern blight severity rating (0-9 scale)					AVG
	Brooksville (N)	Longwood	Raymond (N)	Stoneville-clay	Verona (N)	
Credenz CZ 5147 LL	0.0	1.7	1.0	1.0	6.7	2.1
Credenz CZ 5150 LL	6.7	1.3	3.3	1.0	6.0	3.7
Credenz CZ 5225 LL	2.0	2.0	3.7	1.0	7.7	3.3
Credenz CZ 5242 LL	0.3	1.3	1.3	1.3	7.3	2.3
Credenz CZ 5328 LL	0.0	1.7	1.7	1.0	7.0	2.3
Credenz CZ 5445 LL	1.3	1.3	3.0	1.0	7.7	2.9
MSE	2.4	15.3	3.8	4.4	10.8	
CV	16.2	41.2	20.5	22.1	34.5	
<i>p</i> -value	<0.0001	0.3852	<0.0001	0.4384	0.0458	

Table 34.

Maturity Group V LL Target spot ratings

Target spot severity rating (0-9 scale)						
Brand Variety	Brooksville (N)	Longwood	Raymond (N)	Stoneville-clay	Verona (N)	AVG
Credenz CZ 5147 LL	6.0	8.7	7.3	8.3	6.0	7.3
Credenz CZ 5150 LL	6.7	8.7	7.7	8.0	6.3	7.5
Credenz CZ 5225 LL	5.7	8.0	7.7	9.0	6.3	7.3
Credenz CZ 5242 LL	6.3	7.7	6.3	8.7	6.3	7.1
Credenz CZ 5328 LL	5.7	7.7	8.7	7.7	7.0	7.3
Credenz CZ 5445 LL	6.7	8.7	7.3	8.3	6.0	7.4
MSE	34.9	17.5	19.1	20.2	31.8	
CV	62.2	44.1	45.9	47.3	59.4	
<i>p</i> -value	0.8361	0.1659	0.1125	0.2205	0.7376	

Table 35. Response of Maturity Group IV conventional soybean cultivars to stem canker, 2018.

Company/Cultivar	Stem canker rating^{1,2}	Cultivar designation³
J77-339 (check)	2.7 abc	MR
Univ. of Missouri S14-6391C (2017 check)	0.5 bcd	R
GDM Seeds 2987331 (GDM_2)	0.6 a-d	R
GDM Seeds 2987416 (GDM_1)	0.1 d	R
Go Soy 43C17S	3.2 a	MR
Go Soy E4510S	3.1 a	MR
Go Soy Ireane	0.0 d	R
Univ. of Missouri S13-10590C	3.0 ab	MR
Univ. of Missouri S13-10592C	0.6 a-d	R
Univ. of Missouri S13-2743C	0.3 cd	R
Univ. of Missouri S13-3851C	2.3 a-d	R
LSD (0.05)	2.6	
CV (%)	121.2	
<i>P</i> -value for F-statistic	0.0436	

¹Stem Canker Reaction-Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0-9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (Resistant) was assessed. Ratings were assessed based on the presence of a lesion whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

²Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD ($P=0.05$).

³By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible and 7 = Susceptible.

Table 36. Response of Maturity Group IV early soybean cultivars to stem canker, 2018.

Company/Cultivar	Stem canker rating^{1,2}	Cultivar designation³
Dyna-Gro 39RY43 (Check)	.	.
Armor ARX4607 (2017 check)	6.8 ab	S
Dyna-Gro SX17846XS (2017 check)	4.1 cde	MR
AgriGold G4440RX	6.2 abc	MS
AgriGold G4579RX	1.0 g-k	R
AgriGold G4605RX	0.0 k	R
AGS GS 46X17	0.9 g-k	R
Armor 42-D27 (ARX4207)	1.8 e-k	R
Armor X45D50	0.0 k	R
Armor X46D63	0.8 g-k	R
Asgrow AG42X9	2.1 e-k	R
Asgrow AG43X7	3.1 d-g	MR
Asgrow AG43X8	0.9 g-k	R
Asgrow AG45X8	1.2 g-k	R
Asgrow AG46X6	0.2 k	R
Croplan RX 4217 S	0.6 jk	R
Croplan RX 4500 S	1.6 f-k	R
Croplan RX4687S	6.4 abc	MS
Delta Grow DG 4670 RR2	2.0 e-k	R
Delta Grow DG 46X25RR2 Xtend	0.0 k	R
Dyna-Gro S41XS98	0.8 g-k	R
Dyna-Gro S45XS37	0.0 k	R
Dyna-Gro S45XS66	2.6 d-j	R
Dyna-Gro SX18845XT	0.3 jk	R
Great Heart GT-4628X	3.8 def	MR
Great Heart GT-4685XS	1.6 f-k	R
Local Seed Co. LS4487XS	3.0 d-i	MR
Local Seed Co. LS4565XS	1.2 g-k	R
Local Seed Co. LS4583X	0.4 jk	R
Local Seed Co. LS4677X	0.4 jk	R
Local Seed Co. LS4689X	1.4 g-k	R
Mission Seed Solutions A4447NS	7.3 a	S
Mission Seed Solutions A4637NS	7.0 a	S
Mission Seed Solutions MEX4608	1.0 g-k	R
Mission Seed Solutions MEX4618	0.8 g-k	R
MorSoy MS 4426 RXT	4.5 bcd	MR
MorSoy MS 4616 RXT	1.0 g-k	R
NK Seeds S43-V3X	1.1 g-k	R
NK Seeds S45-J3X	3.1 d-g	MR
NK Seeds S45-K5X	0.3 jk	R
Pioneer P42A96X	0.8 g-k	R
Pioneer P46A16R	1.1 g-k	R
Pioneer P46A57BX	1.1 g-k	R
Progeny P4255RX	6.4 abc	MS
Progeny P4318RX	1.2 g-k	R
Progeny P4444RXS	0.6 jk	R

Progeny P4570RXS	0.7 jk	R
Progeny P4620RXS	0.6 jk	R
Terral REV 4679X	0.0 k	R
Univ. of Missouri R14-15146R	0.1 g-k	R
USG 7447XTS	8.3 a	S
LSD (0.05)	2.3	
CV (%)	80.9	
<i>P</i> -value for F-statistic	<0.0001	

¹Stem Canker Reaction-Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0-9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (Resistant) was assessed. Ratings were assessed based on the presence of a lesion whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

²Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD ($P=0.05$).

³By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible and 7 = Susceptible.

Table 37. Response of Maturity Group IV late soybean cultivars to stem canker, 2018.

Company/Cultivar	Stem canker rating^{1,2}	Cultivar designation³
Dyna-Gro 39RY43 (Check)	.	.
AgriGold G4990RX (2017 check)	5.5 a	MR
Dyna-Gro S49XS88 (2017 check)	3.6 bc	MR
AgriGold G4995RX	1.4 def	R
AGS GS 48X18	0.5 ef	R
Armor 47-D17	1.0 ef	R
Armor 48-D24	0.0 f	R
Armor X47D22	1.8 de	R
Armor X48D02	1.0 ef	R
Armor X49D31	0.3 ef	R
Asgrow AG47X9	0.0 f	R
Asgrow AG48X9	0.0 f	R
Asgrow AG49X9	0.0 f	R
Croplan RX4825	0.0 f	R
Croplan RX4927	0.6 ef	R
Delta Grow DG 4790 RR2	0.3 ef	R
Delta Grow DG 48X45RR2 Xtend	0.7 ef	R
Dyna-Gro S48XT56	0.0 f	R
Dyna-Gro S49XT39	0.3 ef	R
Go Soy 49G16	2.7 cd	MR
Great Heart GT-4721X	1.3 def	R
Great Heart GT-4809X	0.0 f	R
Great Heart GT-4833XS	0.4 ef	R
Great Heart GT-4979X	0.2 ef	R
Local Seed Co. AV47W2X	0.1 ef	R
Local Seed Co. AV49W3X	0.0 f	R
Local Seed Co. LS4889XS	0.9 ef	R
Local Seed Co. LS4966X	0.1 ef	R
Local Seed Co. LS4968XS	0.0 f	R
Local Seed Co. LS4988X	0.1 ef	R
Mission Seed Solutions MEX4808	0.2 ef	R
Mission Seed Solutions MEX4908	0.0 f	R
MorSoy MS 4846 RXT	0.2 ef	R
NK Seeds S48-R2X	0.0 f	R
Petrus Seed 479 GTS	1.5 def	R
Petrus Seed 4916 GT	4.8 ab	MS
Pioneer 48A32X	0.0 f	R
Pioneer P48A60X	0.0 f	R
Progeny P4757RY	0.3 ef	R
Progeny P4799RXS	0.0 f	R
Progeny P4816RX	0.0 f	R
Progeny P4851RX	0.0 f	R
Progeny P4955RX	0.3 ef	R
Progeny P4994RX	0.2 ef	R
Terral REV 47A98	0.0 f	R
Terral REV 4857X	0.0 f	R

Terral REV 48A26	1.3 def	R
Terral REV 4927X	1.2 def	R
Univ. of Missouri S14-15138R	0.0 f	R
Univ. of Missouri S14-9051R	0.0 f	R
USG 7489XTS	0.0 f	R
USG 7496XTS	0.0 f	R
LSD (0.05)	1.7	
CV (%)	183.0	
<i>P</i> -value for F-statistic	<0.0001	

¹Stem Canker Reaction-Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0-9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (Resistant) was assessed. Ratings were assessed based on the presence of a lesion whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

²Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD ($P=0.05$).

³By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible and 7 = Susceptible.

Table 38. Response of Maturity Group IV LibertyLink soybean cultivars to stem canker, 2018.

Company/Cultivar	Stem canker rating^{1,2}	Cultivar designation³
Dyna-Gro 4567LL (Check)	4.2 a	MR
Delta Grow DG4781 LL (2017 check)	1.5 bcd	R
Credenz CZ 3601 LL	2.6 ab	MR
Credenz CZ 3841 LL	2.0 bc	R
Credenz CZ 4105 LL	1.6 bcd	R
Credenz CZ 4222 LL	1.4 bcd	R
Credenz CZ 4308 LL	0.8 cd	R
Credenz CZ 4540 LL	0.0 d	R
Credenz CZ 4548 LL	0.0 d	R
Credenz CZ 4649 LL	0.6 cd	R
Credenz CZ 4748 LL	1.2 bcd	R
Credenz CZ 4820 LL	1.0 cd	R
Credenz CZ 4918 LL	0.5 cd	R
Credenz CZ 4938 LL	0.0 d	R
Delta Grow DG 4587 LL/STS	0.0 d	R
Delta Grow DG 4977 LL/STS	1.5 bcd	R
Dyna-Gro S45LL97	0.0 d	R
Dyna-Gro S49LL34	0.0 d	R
Go Soy 49L17	0.1 d	R
Pioneer P44A08L	0.2 d	R
Pioneer P47A76L	0.0 d	R
Terral REV 46L99	0.4 cd	R
Terral REV 47L38	0.0 d	R
Terral REV 49L88	0.0 d	R
LSD (0.05)	1.6	
CV (%)	144.7	
P-value for F-statistic	<0.0001	

¹Stem Canker Reaction-Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0-9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (Resistant) was assessed. Ratings were assessed based on the presence of a lesion whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

²Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD ($P=0.05$).

³By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible and 7 = Susceptible.

Table 39. Response of Maturity Group V Conventional soybean cultivars to stem canker, 2018.

Company/Cultivar	Stem canker rating^{1,2}	Cultivar designation³
J77-339 (check)	4.0 a	MR
Univ. of Missouri S11-17025 (2017 check)	1.9 bc	R
Go Soy 51C17	0.2 c	R
Go Soy 53C16	1.3 bc	R
Go Soy 56C16	0.2 c	R
Univ. of Missouri M05201D CONV	0.0 c	R
Univ. of Missouri S11-20242C	2.2 ab	R
Univ. of Missouri S13-1955C	1.6 bc	R
Univ. of Missouri S15-10434C	1.6 bc	R
LSD (0.05)	2.0	
CV (%)	95.0	
<i>P</i> -value for F-statistic	0.0101	

¹Stem Canker Reaction-Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0-9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (Resistant) was assessed. Ratings were assessed based on the presence of a lesion whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

²Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD ($P=0.05$).

³By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible and 7 = Susceptible.

Table 40. Response of Maturity Group V early soybean cultivars to stem canker, 2018.

Company/Cultivar	Stem canker rating^{1,2}	Cultivar designation³
Great Heart Seed GT-5022XS (Check)	2.8 d	MR
Armor ARX5107 (2017 check)	4.9 bc	MS
Asgrow AG51X8 (2017 check)	6.4 a	MS
AgriGold G5000RX	0.2 e	R
AgriGold G5288RX	0.0 e	R
AGS GS 51X18S	0.0 e	R
Armor 53-D04	0.0 e	R
Armor X50D13	0.0 e	R
Armor X51D77	0.0 e	R
Armor X52D71	0.1 e	R
Armor X55D57	0.0 e	R
Asgrow AG52X9	0.4 e	R
Asgrow AG53X9	0.2 e	R
Asgrow AG54X9	0.2 e	R
Asgrow AG55X7	0.3 e	R
Croplan(Mid-south) RX 5016 S	0.0 e	R
Delta Grow DG 5170 RR2/STS	0.5 e	R
Delta Grow DG 52X15 Xtend	0.0 e	R
Dyna-Gro S52XT08	0.5 e	R
Dyna-Gro S56XT99	0.0 e	R
Dyna-Gro SX18652XS	0.2 e	R
Dyna-Gro SX18854XT	0.1 e	R
Go Soy 50G17	0.9 e	R
Go Soy 54G16	5.5 ab	MS
Great Heart GT-5324X	0.0 e	R
Local Seed Co. LS5087X	0.3 e	R
NK Seeds S50-G9XS	1.0 e	R
NK SeedsS52Y7X	0.6 e	R
NK SeedsS56B7X	0.0 e	R
Pioneer 54A54X	0.3 e	R
Pioneer 55A49X	0.3 e	R
Pioneer P54A75X	0.1 e	R
Progeny P5016RXS	0.7 e	R
Progeny P5018RX	0.0 e	R
Progeny P5226RYS	0.0 e	R
Progeny P5252RX	0.4 e	R
Progeny P5279RXS	0.0 e	R
Progeny P5554RX	0.0 e	R
Progeny P5688RX	4.0 c	R
Terral REV 51A56	0.5 e	R
Terral REV 52A98	0.4 e	R
Terral REV 55A67	0.0 e	R
Terral REV 56A58	0.1 e	R
Univ. of Arkansas R14-14797 RR	0.2 e	R
Univ. of Missouri S14-9017R	0.0 e	R
LSD (0.05)	1.0	

CV (%)	112.3
<i>P</i> -value for F-statistic	<0.0001

¹Stem Canker Reaction-Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0-9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (Resistant) was assessed. Ratings were assessed based on the presence of a lesion whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

²Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD ($P=0.05$).

³By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible and 7 = Susceptible.

Table 41. Response of Maturity Group V late soybean cultivars to stem canker, 2018.

Company/Cultivar	Stem canker rating^{1,2}	Cultivar designation³
Dyna-Gro S57RY26 (check)	0.1	R
Univ. of Arkansas UA 5715GT (R07-6614RR) (2017 check)	0.2	R
USG 75B75R (2017 check)	0.4	R
Progeny P5752RY	0.3	R
USG 75B75R	0.3	R
LSD (0.05)	0.6	
CV (%)	176.8	
<i>P</i> -value for F-statistic	0.8716	

¹Stem Canker Reaction-Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0-9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (Resistant) was assessed. Ratings were assessed based on the presence of a lesion whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

²Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD ($P=0.05$).

³By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible and 7 = Susceptible.

Table 42. Response of Maturity Group V LibertyLink soybean cultivars to stem canker, 2018.

Company/Cultivar	Stem canker rating^{1,2}	Cultivar designation³
Dyna-Gro 4567LL (check)	1.3	R
Dyna-Gro S52LL66 (2017 check)	0.1	R
Dyna-Gro S55LS75 (2017 check)	0.3	R
Credenz CZ 5147 LL	0.0	R
Credenz CZ 5150 LL	0.0	R
Credenz CZ 5225 LL	0.0	R
Credenz CZ 5242 LL	0.0	R
Credenz CZ 5328 LL	0.0	R
Credenz CZ 5445 LL	0.3	R
Go Soy 5115LL	0.5	R
LSD (0.05)	0.9	
CV (%)	249.7	
<i>P</i> -value for F-statistic	0.1128	

¹Stem Canker Reaction-Eight plants per plot were inoculated with infested toothpicks. Ratings were given by individual plant reaction using a modified 0-9 scale based on lesion severity and are presented as the average for the eight plants. Where a lesion did not appear, a rating of 0 (Resistant) was assessed. Ratings were assessed based on the presence of a lesion whereby a reaction that produced a visible lesion that did not expand up the length of the stem was assessed as a 1. Dead plants with lesions that extended up most of the plant's length received a score of 9.

²Means followed by the same letter(s) within a column are not significantly different according to Fisher's Protected LSD ($P=0.05$).

³By using the Mean Disease Rating, a standardized designation system is as follows: 1 = Resistant, 3 = Moderately Resistant, 5 = Moderately Susceptible and 7 = Susceptible.