

Soybean Variety Tests in Tennessee 2024

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This report is available as a pdf and
as searchable, mobile-friendly tables at:
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SOYBEAN VARIETY TESTS IN TENNESSEE

2024

Experimental Procedures

AgResearch & Education Center Tests: All soybean variety trials were conducted in each of the physiographic regions of the state. Tests were conducted at Northeast Tennessee (Greeneville), East Tennessee (Knoxville), Middle Tennessee (Spring Hill), Highland Rim (Springfield), Milan (Milan), and West Tennessee (Jackson) AgResearch & Education Centers (**REC**). Entries were divided into the following tests based on relative maturity: **MG-3** (relative maturity 3.0-3.9), **MG-4E** (relative maturity 4.0– 4.5), **MG-4L** (relative maturity: 4.6-4.9), and **MG-5** (relative maturity: 5.0-5.9). Each test was treated using conventional herbicides to provide a head-to-head comparison across herbicide tolerances. Duplicate plantings of all tests were made at the **Milan and Highland Rim REC** for performance testing **with and without irrigation**.

The plot size at all REC locations was two, 30-ft. rows with 30-inch row spacing. All varieties were planted at approximately 6 seeds per foot of row (i.e., approximately 140,000 seed per acre in the REC tests). Plots were replicated three times at each location in a randomized complete block design.

Genetics plus Seed Treatments: Seed of all varieties included in the REC tests were treated with one or more fungicides plus an insecticide. Research has shown that seed treatments can influence yield, therefore **the yields of varieties reported herein are the combined result of the genetic potential of the varieties plus the seed treatment “packages”**. The seed treatments that were included in each variety were determined by the company or organization and are listed in Table 23. Many soybean varieties are now being marketed with combinations of fungicides and insecticides on the seed, similar to corn. A decision was made to test the varieties in the UT soybean performance tests with the seed treatments so the results would be comparable to what producers could expect from seed they purchase.

County Standard Tests: The County Standard Soybean Tests were conducted in 16 counties in Tennessee. The number of county locations depended on the test (Table 3). The County Standard Tests were divided by herbicide tolerance into Xtend Flex and Enlist and then further divided by relative maturity. Tests included **MG-3 and MG-4E Glyphosate / Dicamba Tolerant** (relative maturity 3.0-4.5), **MG-4L and MG-5 Glyphosate / Dicamba Tolerant** (relative maturity 4.6-5.9), **MG-4E Enlist** (relative maturity 4.0-4.5). Each variety was evaluated in a large strip-plot at each location, thus each county test was considered as one replication of the test in calculating the overall average yield and in conducting the statistical analysis to determine significant differences. At each location, plots were planted, sprayed, fertilized, and harvested with the equipment used in the cooperating producer’s farming operation. The width and length of strip-plots were different in each county; however, within a location in a county, the strips were trimmed on the ends so that the lengths were the same for each variety, or if the lengths were different then the harvested length was measured for each variety and appropriate harvested area adjustments were made to determine the yield per acre.

Interpretation of Data

The tables on the following pages have been prepared with the entries listed in order of yield performance, the highest-yielding entry being listed first. Mean separation was performed using the **LSD (Least Significant Difference) test**. The mean trait value of any two entries being compared must differ by at least the LSD amount shown to be considered different at the 5% level of probability of

significance. For example, given that the LSD for a test is 7 bu/a and the mean yield of Variety A was 55 bu/a and the mean yield of Variety B was 49 bu/a, then the two hybrids are not statistically different in yield because the difference of 6 bu/a is less than the minimum of 7 bu/a required for them to be significant. Similarly, if the average yield of Variety C was 63 bu/a, then it is significantly higher yielding than both Variety B ($63 - 49 = 14 \text{ bu/a} > \text{LSD of } 7 \text{ bu/a}$) and Variety A ($63 - 55 = 8 \text{ bu/a} > \text{LSD of } 7 \text{ bu/a}$). Tests with an LSD value of N.S. indicate there were no significant differences in entry performance within that test.

To simplify interpretation, **Mean Separation Letters** have been listed next to each entry for the test of average yield across all locations. Varieties that have any letter in common are not significantly different in yield at the 5% level of probability based on the LSD test. Varieties with performance not significantly different from the top-performing hybrid will have an “A” included in the list of mean separation letters next to that entry.

The **coefficient of variation (C.V.)** values are also shown at the bottom of each table. This value is a measure of the error variability found within each experiment. It is calculated as the ratio of the square root of error variance to the mean yield. For example, a C.V. of 10% indicates that the size of the error variation is about 10% of the size of the test mean. Similarly, a C.V. of 30% indicates that the size of the error variation is nearly one-third as large as the test mean. A goal in conducting each yield test is to keep the C.V. as low as possible, preferably below 20 percent. The C.V. is not reported for traits, such as lodging, which are not on a ratio scale and/or have a mean value near zero.

Results

Yield and Agronomic Traits. Eighty soybean varieties were evaluated in the 2023 **Research & Education Center (REC)** tests in Tennessee. There were 8 varieties in the MG-3, 24 in the MG-4E, 40 in the MG-4L, and 8 in the MG-5 tests. Herbicide tolerance varied by entries with the majority falling into the XtendFlex (XF) category, either with or without STS (40 entries) (Table 1). A breakdown of herbicide tolerance by test is given in Table 1.

Sixty-one varieties were evaluated in the **County Standard tests (CST)**, including the following number of varieties and counties within each test: Glyphosate / Dicamba Tolerant Tests – MG3 (1 variety, 3 locs), MG4E (9 varieties, 5 locs), MG4L (14 varieties, 7 locs), MG5 (3 varieties, 5 locs); Enlist Test – MG4E (26 varieties, 7 locs).

Table 1. Herbicide trait technology (A) and number of soybean entries within each herbicide trait class and maturity group in the 2024 UT AgResearch and Education Center soybean variety trials (B).

A.

	Abbr.	Description/Trade Name	Sulfonylurea	Glufosinate	Glyphosate	Dicamba	2,4-D	HPPDi
Conv.	Conv.	No herbicide tolerance						
Single	STS	Sulfonylurea tolerant	x					
	LL	LibertyLink		x				
Double	RR/RR2	Roundup Ready Roundup Ready 2 Roundup Ready 2 Yield			x			
	RR2+STS	Roundup Ready 2 with STS	x		x			
	GTLL	GTLL		x	x			
	R2X	Roundup Ready 2 Xtend			x	x		
Triple	LLGT27	LibertyLink GT27		x	x			x
	R2X+STS	Xtend with STS	x		x	x		
	XF	XtendFlex		x	x	x		
	E3	Enlist E3		x	x		x	
Quad	XF+STS	XtendFlex with STS	x	x	x	x		
	E3+STS	Enlist with STS	x	x	x		x	

B.

	Abbr.	MG-3	MG-4E	MG-4L	MG-5	Total
Conv.	Conv.	3	5	1	2	11
Single	LL				1	1
	RR/RR2/GT		2		1	3
Double	RR/LL			2	1	3
Triple	RR/LL with Synchrony		1			1
	XF	1	5	15	1	22
	E3	4	6	5	1	16
Quad	XF+STS		3	11	1	15
	E3+STS		2	6		8
	Total	8	24	40	8	80

Irrigated vs. Non-irrigated Yields. Duplicate tests were conducted at the Milan and Springfield AgResearch and Education Center locations with and without irrigation. Irrigation had a large impact on yield in 2024, with the largest differences observed in MG3 tests at both locations and at all tests at the Springfield location. The irrigated tests at Milan exhibited a yield advantage compared to the non-irrigated tests in all tests: MG-3 (+37 bu/ac), MG-4E (+ 15 bu/a), MG-4L (+ 13 bu/a), and MG-5 (+ 6 bu/a). Springfield showed an even larger yield advantage from irrigation: MG-3 (+38 bu/ac), MG-4E (+34 bu/a), MG-4L (+41 bu/a), and MG-5 (+36 bu/a).

Growing Season: Soybean official variety trials were planted across all AgResearch and Education Center locations in mid-May, except for AgriCenter International, which was planted in June. Throughout May, statewide soybean planting was ahead of or on par with the 5-year average. Sixty percent of soybeans were planted by late May and 95% by late-June. June and July were marked by very hot and dry conditions. Locations in the central and Southern part of the state suffered more from a lack of timely

rainfall, with conditions ranging from abnormally dry to extreme drought. By late August, only 51% of the crop was rated good to excellent. By late-October, 77% of soybeans had been harvested statewide, increasing to 95% by late November. According to the National Agricultural Statistics Service, soybean yield is projected to be 45 bu/ac in Tennessee. This is a decrease of 6 bu/ac from 2023 state average (51 bu/ac) and 6.7 bu/ac lower than the 2024 National average (51.7 bu/ac). In 2024, an estimated 1,800,000 acres of soybean were harvested in Tennessee. This is an increase of 230,000 acres compared to 2023, which had 1,570,000 acres harvested. Graphs illustrating the temperature and precipitation across the growing season for each REC location are presented below (Figure 1.)

Figure 1. Minimum, maximum, and average temperature and total precipitation by AgResearch and Education Center location across the 2024 corn growing season (April through September).

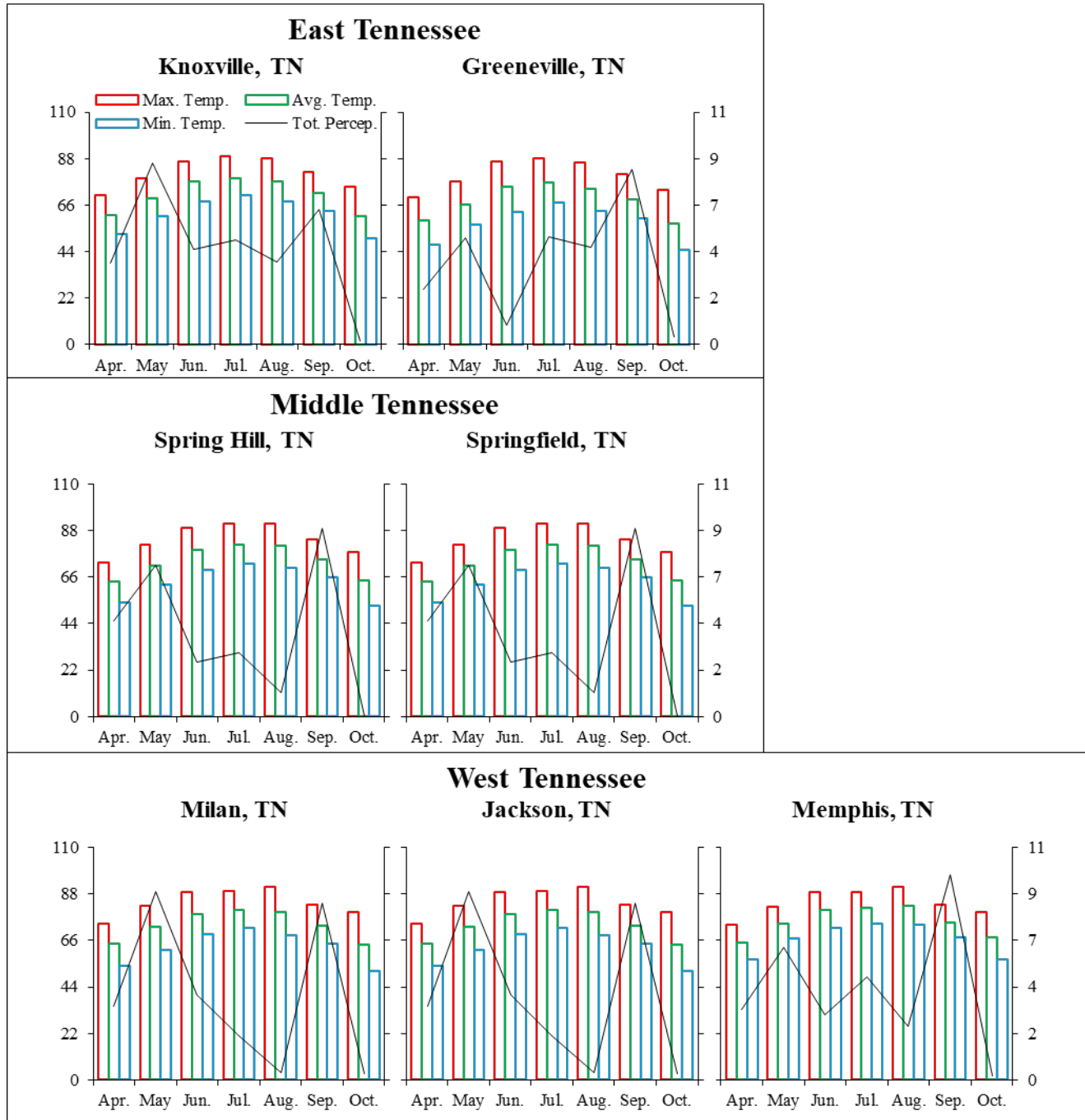


Table 2. Location information from AgResearch and Education Centers where soybean variety tests were conducted in Tennessee in 2024.

Maturity Group III

Location	AgResearch and Education Center	Irrigation	Planting Date	Harvest Date	Seeding Rate	Soil Type
Memphis	Agricenter International	Irrigated	June 24, 2024	n/a	140000	Falaya Silt Loam
Springfield	Highland Rim	Irrigated	May 20, 2024	October 7, 2024	140000	Mountview Silt Loam
Springfield	Highland Rim	Non-irrigated	May 20, 2024	October 15, 2024	140000	Dickson Silt Loam
Spring Hill	Middle Tennessee	Non-irrigated	May 21, 2024	October 21, 2024	140000	Maury Silt Loam/ Huntington Silt Loam
Greeneville	Northeast Tennessee	Non-irrigated	May 13, 2024	October 2, 2024	140000	Cumberland & Waynesboro Silt Loam
Knoxville	East Tennessee	Irrigated	May 13, 2024	n/a	140000	Shady Loam
Milan	Milan	Irrigated	May 21, 2024	October 3, 2024	140000	Loring Silt Loam
Milan	Milan	Non-irrigated	May 22, 2024	October 3, 2024	140000	Grenada Silt Loam
Jackson	West Tennessee	Non-irrigated	May 20, 2024	October 3, 2024	140000	Vicksburg Silt Loam/Collins Silt Loam

Maturity Group Early IV (4.0 - 4.5)

Location	AgResearch and Education Center	Irrigation	Planting Date	Harvest Date	Seeding Rate	Soil Type
Memphis	Agricenter International	Irrigated	June 24, 2024	n/a	140000	Falaya Silt Loam
Springfield	Highland Rim	Irrigated	May 20, 2024	October 7, 2024	140000	Mountview Silt Loam
Springfield	Highland Rim	Non-irrigated	May 20, 2024	October 16, 2024	140000	Dickson Silt Loam
Spring Hill	Middle Tennessee	Non-irrigated	May 21, 2024	October 21, 2024	140000	Maury Silt Loam/ Huntington Silt Loam
Greeneville	Northeast Tennessee	Non-irrigated	May 13, 2024	October 7, 2024	140000	Decatur Silty Clay
Knoxville	East Tennessee	Irrigated	May 13, 2024	n/a	140000	Shady Loam
Milan	Milan	Irrigated	May 21, 2024	October 14, 2024	140000	Loring Silt Loam
Milan	Milan	Non-irrigated	May 22, 2024	October 15, 2024	140000	Grenada Silt Loam
Jackson	West Tennessee	Non-irrigated	May 20, 2024	October 10, 2024	140000	Vicksburg Silt Loam/Collins Silt Loam

Maturity Group Late IV (4.6 - 4.9)

Location	AgResearch and Education Center	Irrigation	Planting Date	Harvest Date	Seeding Rate	Soil Type
Memphis	Agricenter International	Irrigated	June 24, 2024	n/a	140000	Falaya Silt Loam
Springfield	Highland Rim	Irrigated	May 20, 2024	October 7, 2024	140000	Mountview Silt Loam
Springfield	Highland Rim	Non-irrigated	May 20, 2024	October 17, 2024	140000	Dickson Silt Loam
Spring Hill	Middle Tennessee	Non-irrigated	May 21, 2024	October 22, 2024	140000	Maury Silt Loam/ Huntington Silt Loam
Greeneville	Northeast Tennessee	Non-irrigated	May 13, 2024	October 7, 2024	140000	Decatur Silty Clay
Knoxville	East Tennessee	Irrigated	May 13, 2024	n/a	140000	Shady Loam
Milan	Milan	Irrigated	May 21, 2024	October 22, 2024	140000	Loring Silt Loam
Milan	Milan	Non-irrigated	May 22, 2024	October 22, 2024	140000	Grenada Silt Loam
Jackson	West Tennessee	Non-irrigated	May 20, 2024	October 17, 2024	140000	Vicksburg Silt Loam/Collins Silt Loam

Table 2. cont.

Maturity Group Early V (5.0 - 5.5)

Location	AgResearch and Education Center	Irrigation	Planting Date	Harvest Date	Seeding Rate	Soil Type
Memphis	Agricenter International	Irrigated	June 24, 2024	n/a	140000	Falaya Silt Loam
Springfield	Highland Rim	Irrigated	May 20, 2024	October 9, 2024	140000	Mountview Silt Loam
Springfield	Highland Rim	Non-irrigated	May 20, 2024	October 17, 2024	140000	Dickson Silt Loam
Spring Hill	Middle Tennessee	Non-irrigated	May 21, 2024	October 22, 2024	140000	Maury Silt Loam/ Huntington Silt Loam
Greeneville	Northeast Tennessee	Non-irrigated	May 13, 2024	October 8, 2024	140000	Decatur Silty Clay
Knoxville	East Tennessee	Irrigated	May 13, 2024	n/a	140000	Shady Loam
Milan	Milan	Irrigated	May 21, 2024	October 28, 2024	140000	Loring Silt Loam
Milan	Milan	Non-irrigated	May 29, 2024	October 28, 2024	140000	Grenada Silt Loam
Jackson	West Tennessee	Non-irrigated	May 20, 2024	October 25, 2024	140000	Vicksburg Silt Loam/Collins Silt Loam

Table 3. Location information from counties where the soybean variety tests were conducted in 2024.

Roundup Ready/Dicamba Tolerant Early IV (4.0 - 4.5)

County	Cooperator	Agent	Planting Date
Decatur	Stacy Vise	Cheyenne Rushing	June 12, 2024
Gibson	Denton Parkins	Jake Mallard	May 31, 2024
Hardeman	Jake Hall	Clint Plunk	May 2, 2024
Obion	Holman Farms	Garrett McDaniel	June 24, 2024
Perry	Craig & Tim Byrd	Amanda Mathenia	May 30, 2024

Roundup Ready/Dicamba Tolerant Late IV (4.6 - 4.9)

County	Cooperator	Agent	Planting Date
Crockett	Adam Young	Daniel Wiggins	June 24, 2024
Gibson	Denton Parkins	Jake Mallard	May 31, 2024
Henry	Paul Neal/Wilson Farms	Ranson Goodman	June 14, 2024
Madison	Matt Griggs	Hunter Goodman	April 24, 2024
Madison	Parker Bain	Hunter Goodman	May 21, 2024
Meigs	Swanks Farm	David Bilderback	May 24, 2023
Weakley	Waterfield	Bronson Bass	April 24, 2024

Enlist (3.8-5.2)

County	Cooperator	Agent	Planting Date
Cocke	Corbin Neas	Sarah Orr	May 31, 2024
Gibson	Denton Parkins	Jake Mallard	May 31, 2024
Giles	Richard Sulcer	Kevin Rose	June 12, 2024
Henry	Brannon Farms	Ranson Goodman	April 25, 2024
Marshall	Tommy Tindall	Jonathan Johns	May 31, 2024
Warren	Troy Cothron	Heath Nokes	June 8, 2023

Table 4. Average yields of varieties that were in the "A group" (not statistically different from the highest performing variety) in AgResearch and Education Center (REC) trials, County Standard Tests (CST), or both trial programs in 2024. Varieties are sorted by number of consecutive years in "A group" then percent of locs with above average yield.

MG 3 (3.0 - 3.9)

Variety	REC			CST		
	REC Yield [§]	Consecutive Years in A Group [‡]	Locs. with above avg. yield	CST Yield [§]	Consecutive Years in A Group [‡]	Locs. with above avg. yield
Dyna-Gro S38EN75	56	1	80%			
Xitavo XO 3855E	54	1	80%			

MG 4 Early (4.0 - 4.4)

Variety	REC			CST		
	REC Yield [§]	Consecutive Years in A Group [‡]	Locs. with above avg. yield	CST Yield [§]	Consecutive Years in A Group [‡]	Locs. with above avg. yield
Pioneer P43Z44SE	55	1	100%	48	1	43%
Pioneer P45Z75E	58	1	71%	47	1	43%
NK 42A6E3S				47	2	43%
Innvictis A4564XF	56	1	100%			
Revere 44-F44	55	1	100%			
Great Heart GT4538XFS	56	1	86%			
Armor 45F65				63	1	80%
Merschman Austin 2040E				51	1	71%
NK 47-G5E3S				47	1	71%
Dyna-Gro S43XF85S	53		43%	62	1	80%
Dyna-Gro S41EN72	56	1	57%	45		57%
Merschman Memphis 2346E				48	1	57%
Stine 48EE20				47	1	57%
Dyna-Gro S45EN25	52		29%	48	1	71%
Asgrow AG42XF4	54	1	71%	55		20%
Merschman Dallas 2348E				47	1	43%
Asgrow AG44XF4	53		43%	59	1	40%

Table 4. cont.

MG 4 Late (4.5 - 4.9)

Variety	REC			CST		
	REC Yield [§]	Consecutive Years in A Group [‡]	Locs. with above avg. yield	CST Yield [§]	Consecutive Years in A Group [‡]	Locs. with above avg. yield
USG 7461XFS	54	4	71%			
Dyna-Gro S49XF43S	57	1	86%	65	2	100%
Progeny 4947XFS	55	1	86%	67	1	100%
Pioneer P49Z02E	56	1	100%	50	1	86%
Pioneer P48Z70BLX	55	1	86%	62	1	86%
Pioneer P47Z15BE	56	1	86%	52	1	86%
Revere 49-F36	56	1	100%			
CNI Integra XF4875S	55	1	100%			
Asgrow AG49XF4	57	1	86%			
Stine 45FB02				62	1	80%
Donmario DM48F53*	55	1	71%			
USG 7495XFS	52		57%	62	1	71%
Beck's 4337XF				58	1	60%
Beck's 4999XF				61	1	57%
Progeny 4999E3S	49		43%	48	1	57%
Progeny 4775E3S	48		43%	48	1	43%

MG 5 (5.0 - 5.9)

Variety	REC			CST		
	REC Yield [§]	Consecutive Years in A Group [‡]	Locs. with above avg. yield	CST Yield [§]	Consecutive Years in A Group [‡]	Locs. with above avg. yield
Pioneer P53Z60LX	54	1	100%	61	1	71%
Pioneer P50Z95E	53	1	71%	54	1	100%
Progeny 5056XFS	47		43%	63	2	83%
USG 7543XF	48		57%	63	2	67%

§ All yields are adjusted to 13% moisture.

Table 5. Mean[†] yield and agronomic traits of eight Maturity Group III (3.0 - 3.9) soybean varieties evaluated in small plot replicated trials at nine AgResearch and Education Center locations in Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Dyna-Gro S38EN75	E3	56 A	12.3 A	121 BC	32 CD	1.0
Xitavo XO 3855E	E3	54 AB	12.4 A	121 B	30 E	1.0
Innvictis A3974XF	XF	52 B	12.2 A	124 A	38 A	1.0
Pioneer P38Z63E	E3	52 B	12.1 A	119 DE	31 D	1.0
Benson Hill C38H052s	Conv	51 BC	11.9 A	122 B	30 E	1.0
Xitavo XO 3795E	E3	51 BC	12.0 A	121 BC	35 B	1.0
Benson Hill N35D950S	Conv	50 BC	12.1 A	118 E	32 D	1.0
Benson Hill BX37Q467	Conv	48 C	12.2 A	120 CD	33 C	1.0
Average		52	12.2	121	33	1.0
Standard Error		9	0.5	2	2	-
L.S.D. _{.05}		4	N.S.	1	2	-
C.V.		10	8	2	6	-
Site-Years		5	5	5	5	5

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Knoxville excluded due to equipment failure. Memphis excluded due to late harvest. Spring Hill and Jackson excluded due to high trial

Table 6. Mean[†] yields across and by location of eight Maturity Group III (3.0 - 3.9) soybean varieties evaluated in replicated small plot trials at nine AgResearch and Education Center locations in Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Greeneville Non-Irr. (bu/ac)	Springfield Irr. (bu/ac)	Springfield Non-Irr. (bu/ac)	Milan Irr. (bu/ac)	Milan Non-Irr. (bu/ac)
Dyna-Gro S38EN75	E3	56 A	84 A	59 AB	19 A	66 A	53 A
Xitavo XO 3855E	E3	54 AB	73 A	62 A	20 A	66 A	47 A
Innvictis A3974XF	XF	52 B	74 A	56 BC	21 A	64 A	46 A
Pioneer P38Z63E	E3	52 B	70 A	59 AB	19 A	64 A	47 A
Benson Hill C38H052s	Conv	51 BC	74 A	60 AB	21 A	55 A	45 A
Xitavo XO 3795E	E3	51 BC	74 A	51 C	17 A	62 A	49 A
Benson Hill N35D950S	Conv	50 BC	77 A	56 BC	17 A	60 A	43 A
Benson Hill BX37Q467	Conv	48 C	67 A	52 C	18 A	56 A	45 A
Average		52	74	57	19	61	47
Standard Error		9	4	2	2	3	4
L.S.D._{.05}		4	N.S.	5	N.S.	N.S.	N.S.
C.V.		10	8	5	13	7	14

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

‡ For a full description of abbreviated biotech traits, see table 23.

§ All yields are adjusted to 13% moisture.

Knoxville excluded due to equipment failure. Memphis excluded due to late harvest. Spring Hill and Jackson excluded due to high trial variability.

Table 7. Mean[†] yield and agronomic traits of 24 Maturity Group IV Early (4.0 - 4.5) soybean varieties evaluated in small plot replicated trials at nine AgResearch and Education Center locations in Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Pioneer P45Z75E	E3	58 A	10.8 G-K	128 H-J	37 BC	1.1
Innvictis A4564XF	XF	56 AB	11.2 C-G	130 C-F	41 A	1.8
Great Heart GT4538XFS	RR/LL-Synchrony	56 AB	11.1 D-J	131 B-E	41 A	1.4
Dyna-Gro S41EN72	E3	56 A-C	11.3 B-F	128 I-K	33 G-J	1.5
Pioneer P43Z44SE	E3S	55 A-D	10.9 F-K	127 JK	31 KL	1.0
Revere 44-F44	XF	55 A-E	10.7 J-L	132 B	36 B-E	1.0
Asgrow AG42XF4	XF	54 A-F	10.7 J-L	129 F-I	37 B-D	1.0
Asgrow AG44XF4	XFS	53 B-G	10.4 L	130 D-G	33 H-J	1.1
Innvictis A4102XF	XF	53 B-G	10.9 E-K	129 E-H	36 C-E	1.7
Xitavo XO 4405E	E3	53 B-G	10.6 KL	132 BC	33 H-J	1.1
USG 7435XFS	XFS	53 B-G	11.4 A-D	131 B-D	35 E-G	1.1
Dyna-Gro S43XF85S	XFS	53 B-G	11.3 B-E	131 B-D	34 F-H	1.0
Dyna-Gro S45EN25	E3	52 B-G	11.1 D-I	128 H-K	36 B-E	1.4
Xitavo XO 4364E	E3	52 C-G	10.9 E-K	126 KL	32 JK	1.0
Innvictis A4411XF	XF	51 D-H	11.7 AB	132 B	37 B	1.2
Pioneer P41Z80BLX	E3S-Bolt	51 E-H	10.9 F-K	125 LM	41 A	1.2
MO S20-2227	Conv	51 E-H	11.4 A-D	125 LM	34 F-H	1.0
MO S20-15411GT	RR	50 F-H	11.7 A	134 A	36 C-F	1.2
Xitavo XO 4255E	E3	50 F-H	10.6 KL	127 JK	30 L	1.0
Benson Hill N44D923S	Conv	50 F-H	11.6 A-C	124 M	35 D-F	1.0
MO S20-5669	Conv	50 GH	11.2 C-H	131 B-D	32 I-K	1.0
Benson Hill C44H054S	Conv	50 GH	10.7 I-L	129 G-I	30 L	1.0
MO S20-14129GT	RR	49 GH	10.8 H-L	131 B-D	36 C-F	1.3
Benson Hill BH43Q207	Conv	47 H	10.9 E-K	124 M	34 G-I	1.0
Average		52	11.0	129	35	1.2
Standard Error		7	0.5	2	2	0.1
L.S.D._{.05}		4	0.4	2	1	-
C.V.		13	6	2	7	-
Site-Years		7	7	7	7	7

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table 8. Mean[†] yields across and by location of 24 Maturity Group IV Early (4.0 - 4.5) soybean varieties evaluated in replicated small plot trials at nine AgResearch and Education Center locations in Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Greeneville Non-Irr. (bu/ac)	Springfield Irr. (bu/ac)	Springfield Non-Irr. (bu/ac)	Spring Hill Non-Irr. (bu/ac)	Milan Irr. (bu/ac)	Milan Non-Irr. (bu/ac)	Jackson Non-Irr. (bu/ac)
Pioneer P45Z75E	E3	58 A	72 C-F	63 A	20 C-E	60 A	82 A	55 A	60 A
Innvictis A4564XF	XF	56 AB	76 A-D	59 A-D	26 A	52 A-F	74 A-C	55 A	50 A
Great Heart GT4538XFS	RR/LL-Synchrony	56 AB	76 A-D	63 AB	22 A-C	56 A-C	67 C-F	55 A	52 A
Dyna-Gro S41EN72	E3	56 A-C	75 B-D	62 AB	20 C-E	52 A-F	78 AB	58 A	45 A
Pioneer P43Z44SE	E3S	55 A-D	79 A-C	58 A-E	22 A-C	54 A-E	69 C-F	54 A	50 A
Revere 44-F44	XF	55 A-E	76 A-D	57 A-F	24 A-C	51 A-F	71 B-E	55 A	48 A
Asgrow AG42XF4	XF	54 A-F	74 B-F	56 B-F	26 AB	50 A-F	67 C-F	58 A	46 A
Asgrow AG44XF4	XFS	53 B-G	83 AB	56 A-F	19 C-E	43 D-H	68 C-F	59 A	44 A
Innvictis A4102XF	XF	53 B-G	77 A-D	52 D-H	22 A-C	58 AB	65 C-F	50 A	47 A
Xitavo XO 4405E	E3	53 B-G	79 A-C	52 E-H	21 B-D	55 A-D	72 B-D	51 A	42 A
USG 7435XFS	XFS	53 B-G	69 D-F	60 A-C	22 A-C	52 A-F	68 C-F	49 A	51 A
Dyna-Gro S43XF85S	XFS	53 B-G	78 A-D	52 D-H	23 A-C	45 C-H	66 C-F	62 A	43 A
Dyna-Gro S45EN25	E3	52 B-G	85 A	60 AB	19 C-E	47 B-G	67 C-F	50 A	38 A
Xitavo XO 4364E	E3	52 C-G	80 A-C	52 D-H	19 C-E	34 H	73 A-C	62 A	43 A
Innvictis A4411XF	XF	51 D-H	73 C-F	48 GH	20 C-E	49 A-G	68 C-F	56 A	46 A
Pioneer P41Z80BLX	E3S-Bolt	51 E-H	77 A-D	57 A-F	23 A-C	37 GH	71 B-E	50 A	42 A
MO S20-2227	Conv	51 E-H	77 A-D	57 A-F	23 A-C	43 D-H	62 EF	54 A	38 A
MO S20-15411GT	RR	50 F-H	64 F	53 C-G	20 B-E	42 F-H	66 C-F	58 A	49 A
Xitavo XO 4255E	E3	50 F-H	72 C-F	56 B-F	22 A-C	45 C-H	67 C-F	52 A	36 A
Benson Hill N44D923S	Conv	50 F-H	74 B-E	51 F-H	19 C-E	42 E-H	66 C-F	55 A	42 A
MO S20-5669	Conv	50 GH	76 A-D	45 H	20 C-E	45 C-H	66 C-F	46 A	48 A
Benson Hill C44H054S	Conv	50 GH	80 A-C	50 F-H	16 DE	37 GH	69 C-F	50 A	45 A
MO S20-14129GT	RR	49 GH	71 C-F	48 GH	15 E	57 A-C	63 D-F	52 A	39 A
Benson Hill BH43Q207	Conv	47 H	65 EF	51 F-H	24 A-C	41 F-H	61 F	48 A	43 A
Average		52	75	55	21	48	69	54	45
Standard Error		7	5	3	2	5	4	5	6
L.S.D._{.05}		4	10	7	5	12	9	N.S.	N.S.
C.V.		13	8	8	15	16	8	14	13

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

‡ For a full description of abbreviated biotech traits, see table 23.

§ All yields are adjusted to 13% moisture.

Knoxville excluded due to equipment failure. Memphis excluded due to late harvest.

Table 9. Yields of 9 Maturity Group IV Early (4.0-4.5) and 1 MG III Glyphosate / Dicamba tolerant soybean varieties in 5 County Standard Tests in Tennessee during 2024[‡].

MS† Avg. Yield Variety	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	Decatur	Gibson	Hardeman	Obion	Perry
			12-Jun	31-May	2-May	24-Jun	30-May
Dyna-Gro S38XF22S	63.4	12.00	.	65	44	76	.
A Armor 45F65	63.0	12.02	77	64	49	69	56
AB Dyna-Gro S43XF85S	62.4	12.18	69	59	53	80	52
ABC Stine 45FB02	61.5	12.18	76	56	56	70	49
ABC Asgrow 44XF4	59.3	11.90	85	56	51	57	47
ABCC Beck's 4337XF	58.2	12.18	74	49	42	70	55
BCD Pioneer P41Z80BLX	56.1	11.72	64	56	52	61	48
CD Asgrow 42XF4	55.3	11.66	70	51	46	60	50
CD Stine 40FD29	55.3	11.84	68	52	54	59	44
D Dyna-Gro S41XF65	52.4	11.82	58	54	42	62	46
Average	58.7	12.0	71.3	56.2	48.9	66.5	49.6

[‡] Data Provided by Ryan Blair, Ext. Area Specialist, Grain and Cotton Variety Testing, and Extension agents in counties shown above.

[†] Varieties that have any MS letter in common are not significantly different at the 5% level of probability. Values highlighted in light orange are above average for a given trait, MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

[§] All yields are adjusted to 13% moisture.

County Locations include: Decatur, Gibson, Hardeman, Obion & Perry

Table 10. Yields of 26 Maturity Group IV Early (4.0-4.5) Enlist tolerant soybean varieties in 7 County Standard Tests in Tennessee during 2024[‡].

MS†	Avg. Yield	Variety	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)							
					Cocke 5/31	Gibson 5/31	Giles 6/12	Henry 4/25	Marshall 5/31	Maury 5/16	Warren 5/30
A		Pioneer P50Z95E	53.5	11.3	55'	71	42	75	27	50	55
AB		Pioneer P47Z15BE	51.5	12.4	45	64	42	85	20	52	52
ABC		Merschman Austin 2040E	51.3	12.1	46	66	47	81	23	52	45
ABCD		Pioneer P49Z02E	50.1	11.3	51'	56	40	81	26	53	43
ABCDE		Progeny 4999E3S	48.4	12.4	52	47	36	72	23	51	58
ABCDE		Merschman Memphis 2346E	48.1	11.9	57	58	42	74	16	49	40
ABCDE		Pioneer P43Z44SE	48.1	12.3	49	53	40	89	15	46	45
ABCDE		Dyna-Gro S45EN25	47.6	12.0	48	57	41	74	20	49	45
ABCDE		Progeny 4775E3S	47.6	12.2	53	52	46	70	13	46	53
ABCDE		Merschman Dallas 2348E	47.4	12.5	65	53	36	67	22	49	40
ABCDE		Pioneer P45Z75E	47.4	12.0	50	53	43	72	21	45	46
ABCDE		NK 42A6E3S*	47.2	12.7	53	61	37	83	15	46	36
ABCDE		Stine 48EE20	47.1	13.1	54	49	35	66	22	49	54
ABCDE		NK 47-G5E3S	46.9	12.4	50	54	30	71	20	54	48
BCDE		NK 49-U9E3S	46.5	12.3	42	57	34	72	16	51	54
BCDEF		Stine 49EG92	45.4	13.0	47	47	28	78	14	49	56
BCDEF		Stine 46EG92	45.2	12.9	47	52	38	76	12	51	41
BCDEF		Dyna-Gro S48EN73	45.1	12.8	41	53	41	66	17	54	45'
CDEF		Beck's 4320 E3	44.9	12.5	50	58	34	67	11	36	58
BCDEF		Dyna-Gro S41EN72	44.9	12.8	25	52'	37	79	27	40	53
BCDEF		Merschman Truman 2338E	44.0	13.1	52	51	37'	70	11	45'	44'
DEF		Stine 42EG23E3	43.5	11.4	45'	51	32	80	18	42	36
DEF		Merschman Savannah 2545E	43.5	12.1	44'	50'	37	67	14	52	40
EF		Stine 46EE20	42.5	12.5	45	55	37	68	8	44	40
EF		Stine 43EG29E3	42.2	12.2	45	41	42	72	13	47	36
F		Merschman Denver 2442E	39.8	12.3	31	39	33	84	16	36	41
Average			46.5	12.3	47.6	54.1	38.0	74.5	17.8	47.6	46.4

[‡] Data Provided by Ryan Blair, Ext. Area Specialist, Grain and Cotton Variety Testing, and Extension agents in counties shown above.

[†] Varieties that have any MS in common are not significantly different at the 5% level of probability. Values highlighted in light orange are above average for a given trait, MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

* Asterisks after a hybrid name indicate the number of preceding consecutive years in the top-performing "A" group.

[§] All yields are adjusted to 13% moisture.

County Locations include: Cocke Gibson, Giles, Henry, Marshall, Maury & Warren.

Table 11. Yields and disease ratings of 9 Maturity Group 4 Early (4.0-4.5) and 1 MG 3 Glyphosate / Dicamba tolerant soybean varieties in 5 County Standard Tests and in small plot trials at 3 locations in Tennessee during 2024.

Summary from County Tests			Summary from Small Plot Research														
MS	Variety	Avg. Yield (bu/ac)	On-farm Location in Jackson (JAX)					Research & Education Center at Milan (RECM)					West TN Research & Education Center (WTREC)				Soybean Cyst Nematode
			Yield (bu/ac)		Frogeye leaf spot	Target spot	Brown spot	Yield (bu/ac)		Frogeye leaf spot	Target spot	Brown spot	Yield (bu/ac)		Frogeye leaf spot	Brown spot	
			*Treated	Non-treated				*Treated	Non-treated				*Treated	Non-treated			
	Dyna-Gro S38XF22S	63.4	49.7	48.9	MOD	TRACE	HIGH	49.0	45.5	HIGH	LOW	HIGH	45.4	47.9	LOW	HIGH	MS
A	Armor 45F65	63.0	53.9	48.8	LOW	NONE	HIGH	64.2	61.3	LOW	NONE	HIGH	49.8	48.8	LOW	MOD	MS
AB	Dyna-Gro S43XF85S	62.4	51.9	48.3	NONE	NONE	HIGH	58.3	52.2	NONE	NONE	MOD	45.3	48.1	NONE	MOD	MR
ABC	Stine 45FB02	61.5	52.8	49.6	LOW	NONE	MOD	57.4	57.7	LOW	NONE	MOD	45.2	43.2	NONE	MOD	S
ABC	Asgrow 44XF4	59.3	54.9	53.4	NONE	NONE	MOD	66.7	60.6	NONE	NONE	MOD	56.9	52.7	NONE	MOD	MR
ABCD	Beck's 4337XF	58.2	51.6	47.5	MOD	TRACE	HIGH	57.0	49.6	HIGH	NONE	HIGH	49.7	49.5	MOD	HIGH	MR
BCD	Pioneer P41Z80BLX	56.1	52.1	47.9	NONE	TRACE	HIGH	51.5	49.0	NONE	NONE	LOW	42.7	47.4	NONE	MOD	R
CD	Asgrow 42XF4	55.3	52.9	49.9	LOW	NONE	MOD	55.6	53.9	LOW	NONE	LOW	43.3	41.7	LOW	MOD	R
CD	Stine 40FD29	55.3	52.9	52.8	LOW	TRACE	HIGH	55.7	51.7	LOW	NONE	HIGH	41.9	40.3	LOW	LOW	MS
D	Dyna-Gro S41XF65	52.4	48.7	44.4	LOW	NONE	HIGH	58.6	53.4	MOD	LOW	HIGH	44.7	43.4	MOD	MOD	S
	Average	58.7	52.1	49.2				57.4	53.5				46.5	46.3			

Yield adjusted to 13.5% moisture

MS= Varieties that have any MS letter in common are not statistically different in yield (based on 95% confidence)

*Treated plots sprayed with Miravis Top @13.7 fl oz/a + 0.25% Induce @ R3 growth stage

JAX varieties planted May 21, sprayed July 30, and harvested Oct 10

RECM varieties planted May 29, sprayed July 30, and harvested Oct 16

WTREC varieties planted June 13, sprayed Aug 21, and harvested Oct 24

NONE, TRACE, LOW, MOD, and HIGH is a relative ranking of disease severity at each location.

Soybean Cyst Nematode ratings as Resistant (R), Moderately Resistant (MR), Moderately Susceptible (MS), Susceptible (S), or High Susceptible (HS) to HG Type 1.2.5.7/Race 2

Disease ratings at JAX: Frogeye leaf spot ranged from 0 - 10%, averaged 4%; Target spot from 0 - 0.8%, averaged 0.3%; Brown spot from 14 - 21%, averaged 18%

Disease ratings at RECM: Frogeye leaf spot ranged from 0 - 11%, averaged 4%; Target spot from 0 - 1.5%, averaged 0.2%; Brown spot from 7 - 17%, averaged 14%

Disease ratings at WTREC: Frogeye leaf spot ranged from 0.3 - 10%, averaged 3.4%; Target spot was not observed; Brown spot from 10 - 18%, averaged 13%

Disease ratings & yield data compiled by Dr. Heather Kelly and Wesley Crowder from replicated plots at 3 locations

County data provided by Ryan Blair, Ext. Area Specialist, Grain and Cotton Variety Testing, and County Extension agents

Soybean Cyst Nematode data provided by Tara Sydboten, USDA Research Plant Pathologist Unit

Table 12. Yields of 25 Maturity Group 4 (4.0-4.9) & 1 MG 5 Enlist tolerant soybean varieties in 7 County Standard Tests and in small plot trials at 3 locations in Tennessee during 2024

Summary from County Tests			Summary from Small Plot Research													
MS	Variety	Avg. Yield (bu/ac)	On-farm Location in Jackson (JAX)					Research & Education Center at Milan (RECM)				Research & Education Center at Milan (RECM)				Soybean Cyst Nematode
			Yield (bu/ac)	Frogeye leaf spot	Target spot	Brown spot	Yield (bu/ac)	Frogeye leaf spot	Brown spot	Yield (bu/ac)	Frogeye leaf spot	Brown spot				
			*Treated	Non-treated			*Treated	Non-treated			*Treated	Non-treated				
CDEF	Beck's 4320 E3	44.9	50.4	46.4	NONE	TRACE	MOD	54.9	48.6	LOW	HIGH	47.3	46.4	LOW	MOD	MR
BCDEF	Dyna-Gro S41EN72	44.9	52.5	50.2	NONE	NONE	MOD	53.5	54.8	NONE	LOW	49.7	55.9	NONE	MOD	MS
ABCDEF	Dyna-Gro S45EN25	47.6	49.0	48.0	NONE	NONE	MOD	49.0	50.3	NONE	LOW	52.8	52.7	NONE	MOD	MR
BCDEF	Dyna-Gro S48EN73	45.1	51.4	46.5	LOW	NONE	HIGH	55.6	51.4	LOW	HIGH	49.5	50.6	LOW	MOD	MS
ABC	Merschman Austin 2040E	51.3	51.6	47.8	NONE	NONE	MOD	54.5	51.3	NONE	MOD	48.0	44.5	NONE	MOD	MS
ABCDE	Merschman Dallas 2348E	47.4	48.4	47.4	LOW	NONE	HIGH	51.6	49.7	LOW	HIGH	53.3	50.1	LOW	MOD	MS
F	Merschman Denver 2442E	39.8	49.6	45.6	LOW	NONE	HIGH	55.1	49.0	HIGH	HIGH	42.8	44.3	HIGH	HIGH	MR
ABCDE	Merschman Memphis 2346E	48.1	53.4	49.0	LOW	NONE	MOD	52.0	46.9	LOW	MOD	43.9	47.2	LOW	LOW	MS
DEF	Merschman Savannah 2545E	43.5	58.9	51.8	LOW	NONE	HIGH	-	-	-	-	-	-	-	-	-
BCDEF	Merschman Truman 2338E	44.0	49.1	43.8	NONE	NONE	MOD	55.2	50.4	NONE	HIGH	49.3	50.0	NONE	MOD	MR
ABCDE	NK 42A6E3S	47.2	48.7	48.3	NONE	NONE	MOD	62.9	58.3	NONE	MOD	48.9	53.2	NONE	LOW	MR
ABCDE	NK 47-G5E3S	46.9	52.4	45.3	LOW	NONE	MOD	50.1	49.5	LOW	LOW	45.7	45.1	LOW	MOD	MR
BCDE	NK 49-U9E3S	46.5	55.7	56.4	NONE	NONE	HIGH	54.7	55.2	NONE	MOD	48.8	51.3	NONE	LOW	R
ABCDE	Pioneer P43Z44SE	48.1	54.0	44.8	LOW	NONE	MOD	53.9	49.9	LOW	MOD	49.5	50.4	LOW	LOW	R
ABCDE	Pioneer P45Z75E	47.4	56.0	53.5	NONE	NONE	MOD	59.6	57.7	NONE	LOW	52.4	54.1	NONE	MOD	R
AB	Pioneer P47Z15BE	51.5	48.9	45.7	NONE	NONE	HIGH	55.6	52.9	NONE	HIGH	51.2	48.0	NONE	HIGH	R
ABCD	Pioneer P49Z02E	50.1	54.8	50.2	LOW	NONE	HIGH	50.2	50.7	LOW	MOD	49.1	51.1	LOW	HIGH	R
A	Pioneer P50Z95E	53.5	53.2	49.4	NONE	NONE	HIGH	49.2	48.0	NONE	HIGH	-	-	-	-	MR
ABCDE	Progeny 4775E3S	47.6	46.4	41.7	LOW	NONE	MOD	51.2	44.9	LOW	MOD	41.6	40.4	LOW	HIGH	MS
ABCDE	Progeny 4999E3S	48.4	46.8	39.1	LOW	NONE	HIGH	50.7	45.4	LOW	HIGH	51.1	48.7	MOD	HIGH	MS
DEF	Stine 42EG23E3	43.5	49.0	46.6	NONE	TRACE	HIGH	49.7	48.5	LOW	MOD	47.3	47.0	NONE	HIGH	MS
EF	Stine 43EG29E3	42.2	53.1	45.3	HIGH	NONE	HIGH	56.0	51.0	MOD	HIGH	46.0	48.3	HIGH	MOD	MS
EF	Stine 46EE20	42.5	48.4	45.1	LOW	NONE	MOD	49.6	48.9	LOW	HIGH	47.0	46.2	LOW	MOD	MS
BCDEF	Stine 46EG92	45.2	53.0	45.3	NONE	NONE	HIGH	50.9	48.2	NONE	HIGH	49.4	49.3	NONE	HIGH	MS
ABCDE	Stine 48EE20	47.1	48.7	44.2	LOW	NONE	HIGH	49.4	45.5	LOW	HIGH	44.9	46.1	LOW	MOD	MR
BCDEF	Stine 49EG92	45.4	42.6	38.4	MOD	NONE	HIGH	48.5	45.4	LOW	HIGH	49.1	46.2	MOD	HIGH	MS
	Average	46.5	51.0	46.8				52.9	50.1			48.3	48.6			

Yield adjusted to 13.5% moisture

MS= Varieties that have any MS letter in common are not statistically different in yield (based on 95% confidence)

*Treated plots sprayed with Miravis Top @13.7 fl oz/a + 0.25% Induce @ R3 growth stage

JAX varieties planted May 21, 4E sprayed July 30 & 4L sprayed Aug 1, and harvested Oct 10

RECM varieties planted May 29, 4E sprayed July 30 & 4L sprayed Aug 6, and harvested Oct 16

WTREC varieties planted June 13, sprayed Aug 21, and harvested Oct 24

NONE, TRACE, LOW, MOD, and HIGH is a relative ranking of disease severity at each location.

Soybean Cyst Nematode rated as Resistant (R), Moderately Resistant (MR), Moderately Susceptible (MS), Susceptible (S), or High Susceptible (HS) to HG Type 1.2.5.7/Race 2

Disease ratings at JAX: Frogeye leaf spot ranged from 0 - 14%, averaged 3%; Target spot only observed at trace levels; Brown spot from 12 - 20%, averaged 16%

Disease ratings at RECM: Frogeye leaf spot ranged from 0 - 10%, averaged 4%; Target spot was not observed; Brown spot from 8 - 18%, averaged 14%

Disease ratings at WTREC: Frogeye leaf spot ranged from 0 - 21%, averaged 4%; Target spot was not observed; Brown spot from 7 - 21%, averaged 14%

Disease ratings & yield data compiled by Dr. Heather Kelly and Wesley Crowder from replicated plots at 3 locations

County data provided by Ryan Blair, Ext. Area Specialist, Grain and Cotton Variety Testing, and County Extension agents

Soybean Cyst Nematode data provided by Tara Sydboten, USDA Research Plant Pathologist Unit

Table 13. Overall average yields, moistures, and test weights of 8 Maturity Group III and IV Early (3.0 - 4.4) soybean varieties evaluated in both the County Standard Tests and Research and Education Center Tests in Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. of REC and CST Tests			REC Tests			CST Tests		
		Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	"A group" in both tests	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	"A group"	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	"A group"
Dyna-Gro S43XF85S	XFS	57.6	11.7		52.9	11.3		62.4	12.2	*
Asgrow AG44XF4	XFS	56.3	11.1		53.2	10.4		59.3	11.9	*
Asgrow AG42XF4	XF	54.6	11.2		53.8	10.7	*	55.3	11.7	
Pioneer P41Z80BLX	E3S-Bolt	53.6	11.3		51.1	10.9		56.1	11.7	
Pioneer P45Z75E	E3	52.7	11.4	*	57.9	10.8	*	47.4	12.0	*
Pioneer P43Z44SE	E3S	51.7	11.6	*	55.2	10.9	*	48.1	12.3	*
Dyna-Gro S41EN72	E3	50.3	12.0		55.6	11.3	*	44.9	12.8	
Dyna-Gro S45EN25	E3	50.0	11.6		52.4	11.1		47.6	12.0	*
Average		53.3	11.5		54.0	10.9		52.6	12.1	

‡ For a full description of abbreviated biotech traits, see table 23.

§ All yields are adjusted to 13% moisture.

Table 14. Mean[†] yield and agronomic traits of 40 Maturity Group IV Late (4.6 - 4.9) soybean varieties evaluated in small plot replicated trials at nine AgResearch and Education Center locations in Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Dyna-Gro S49XF43S	XFS	57 A	10.8 G-J	138 A-C	33 OP	1.3
Asgrow AG49XF4	XFS	57 AB	11.0 E-I	135 G-K	37 D-G	1.1
Pioneer P49Z02E	E3	56 A-C	10.9 F-I	136 D-G	34 L-P	1.0
Pioneer P47Z15BE	E3S-Bolt	56 A-D	10.4 K	132 M-P	37 F-H	1.1
Revere 49-F36	XF	56 A-D	11.6 AB	139 A	39 B-D	1.5
Donmario DM48F53*	XF	55 A-E	10.8 H-K	136 E-H	30 Q	1.0
CNI Integra XF4875S	XF	55 A-E	11.5 A-C	139 AB	38 B-F	1.3
Progeny 4947XFS	XFS	55 A-F	11.6 AB	139 A	39 BC	1.2
Pioneer P48Z70BLX	E3S-Bolt	55 A-G	10.8 H-K	135 F-J	41 A	1.3
USG 7461XFS***	XFS	54 A-H	11.3 A-F	135 F-J	39 B	1.1
Innvictis A4862XF	XF	53 B-I	10.8 H-J	136 E-H	35 I-M	1.1
Progeny 4623XF	XF	53 C-I	10.7 H-K	136 E-H	35 H-K	1.1
USG 7494ETS	E3S	52 D-J	11.4 A-D	134 J-L	36 G-I	1.1
Progeny 4691XFS	XFS	52 E-K	11.4 A-D	135 H-K	39 B	1.2
USG 7495XFS	XFS	52 E-L	10.5 JK	137 B-D	38 B-E	1.6
USG 7485ETS	E3S	51 F-M	10.8 G-J	135 H-K	37 D-H	1.4
Revere 47-F77	XF	51 F-M	10.7 H-K	134 I-L	39 BC	1.3
Great Heart GT4756XF	RR/LL	51 F-M	10.8 G-J	134 K-M	35 J-N	1.3
Progeny 4604XFS	XFS	51 F-M	11.1 C-H	136 D-G	39 B	1.2
Pioneer P46A90LX	RR2X/LL	51 F-M	11.5 AB	132 N-P	37 F-H	1.2
CNI Integra XF4634S	XF	51 G-M	10.8 H-J	134 K-M	39 B	1.1
Dyna-Gro S48XF35	XF	51 G-M	10.8 G-J	137 C-E	32 P	1.0
Xitavo XO 4894E	E3	51 H-M	11.6 A	134 J-L	37 C-G	1.2
Xitavo XO 4772E	E3	51 H-N	11.4 A-E	135 F-J	33 N-P	1.1
Innvictis A4924XF	XF	50 H-N	10.8 H-J	136 D-F	33 M-P	1.0
Progeny 4798XF	XF	50 H-N	10.8 G-J	137 B-D	36 G-J	1.3
Pioneer P46Z53E	E3	49 I-N	11.5 A-C	131 O-Q	33 OP	1.0
USG 7474XFS	XFS	49 I-N	10.9 F-I	135 F-I	34 K-O	1.1
Donmario DM46F54S	XF	49 I-N	11.4 A-D	130 Q	37 E-H	1.4
CNI Fortus 4655ES	E3	49 I-N	11.7 A	132 OP	33 M-P	1.1
Progeny 4999E3S	E3S	49 I-N	11.0 D-I	135 H-K	37 F-H	1.1
USG 7463XF	XF	49 I-N	11.2 B-G	132 OP	35 H-L	1.0
Innvictis A4814XF	XF	49 I-N	10.9 F-I	137 B-D	33 OP	1.0
Innvictis A4664XF	XF	49 K-N	11.0 F-I	131 PQ	34 L-P	1.1
Progeny 4806XFS	XFS	49 J-N	11.0 E-I	137 C-E	34 K-O	1.1
Dyna-Gro S47XF23S	XFS	48 K-N	10.8 H-J	134 I-L	36 G-J	1.2
MO S20-7117	Conv	48 L-N	11.6 AB	134 K-N	34 M-P	1.1
Progeny 4775E3S	E3S	48 L-N	11.5 AB	134 I-L	37 E-H	1.2
Revere 4826XFS	XFS	48 MN	10.9 F-J	134 J-L	34 J-N	1.2
Progeny 4848XF	XF	47 N	10.7 I-K	133 L-O	34 L-P	1.0
Average		51	11.1	135	36	1.2
Standard Error		6	0.5	2	2	0.1
L.S.D. _{.05}		4	0.4	1	2	-
C.V.		12	6	2	7	-
Site-Years		7	7	7	7	7

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.
- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.
- C.V. is only reported for variables evaluated on a ratio scale.
- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.
‡ For a full description of abbreviated biotech traits, see table 23.
* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.
§ All yields are adjusted to 13% moisture.
†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table 15. Mean[†] yields across and by location of 40 Maturity Group IV Late (4.5 - 4.9) soybean varieties evaluated in replicated small plot trials at nine AgResearch and Education Center locations in Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Greeneville	Springfield	Springfield	Spring Hill	Milan	Milan	Jackson
			Non-Irr. (bu/ac)	Irr. (bu/ac)	Non-Irr. (bu/ac)	Non-Irr. (bu/ac)	Irr. (bu/ac)	Non-Irr. (bu/ac)	Non-Irr. (bu/ac)
Dyna-Gro S49XF43S	XFS	57 A	70 A	67 A-C	18 B-J	49 A-G	74 AB	56 A-D	62 A
Asgrow AG49XF4	XFS	57 AB	78 A	64 A-G	17 E-J	52 A-D	71 A-D	55 A-E	59 AB
Pioneer P49Z02E	E3	56 A-C	67 A	62 A-I	23 A-C	51 A-E	75 A	60 AB	57 A-E
Pioneer P47Z15BE	E3S-Bolt	56 A-D	68 A	70 AB	16 F-J	46 A-J	75 AB	60 AB	58 A-C
Revere 49-F36	XF	56 A-D	69 A	71 A	21 A-G	47 A-H	67 A-I	61 A	55 A-G
Donmario DM48F53*	XF	55 A-E	70 A	66 A-D	17 D-J	53 AB	71 A-D	59 AB	50 C-I
CNI Integra XF4875S	XF	55 A-E	70 A	60 C-L	24 A	50 A-G	70 A-F	60 A	54 A-G
Progeny 4947XFS	XFS	55 A-F	68 A	64 A-F	17 E-J	53 AB	71 A-E	57 A-C	52 B-H
Pioneer P48Z70BLX	E3S-Bolt	55 A-G	67 A	58 C-L	22 A-E	53 A-E	70 A-H	57 A-D	57 A-D
USG 7461XFS***	XFS	54 A-H	73 A	64 A-H	22 A-D	46 A-J	63 C-J	54 A-E	52 B-H
Innvictis A4862XF	XF	53 B-I	58 A	62 A-I	21 A-I	55 A	69 A-G	51 A-E	52 B-H
Progeny 4623XF	XF	53 C-I	72 A	60 C-L	17 F-J	50 A-F	67 A-I	46 D-F	56 A-F
USG 7494ETS	E3S	52 D-J	61 A	55 F-M	23 AB	48 A-G	69 A-G	58 A-C	53 B-H
Progeny 4691XFS	XFS	52 E-K	63 A	56 E-M	20 A-H	46 A-J	72 A-C	60 AB	45 HI
USG 7495XFS	XFS	52 E-L	66 A	57 D-M	14 J	42 F-J	72 A-D	55 A-E	56 A-F
USG 7485ETS	E3S	51 F-M	64 A	61 B-J	21 A-F	41 E-J	64 C-J	55 A-E	51 B-H
Revere 47-F77	XF	51 F-M	61 A	59 C-L	20 A-G	45 B-J	69 A-F	56 A-D	49 E-I
Great Heart GT4756XF	RR/LL	51 F-M	66 A	57 D-M	18 B-J	48 A-G	64 C-J	53 A-E	53 B-H
Progeny 4604XFS	XFS	51 F-M	67 A	61 B-J	18 B-J	43 E-J	64 C-J	54 A-E	53 B-H
Pioneer P46A90LX	RR2X/LL	51 F-M	56 A	62 A-I	17 D-J	44 C-J	74 AB	57 A-D	50 C-I
CNI Integra XF4634S	XF	51 G-M	61 A	65 A-E	21 A-F	42 F-J	60 IJ	57 A-D	52 B-H
Dyna-Gro S48XF35	XF	51 G-M	56 A	62 A-I	16 F-J	48 A-G	63 D-J	59 AB	51 B-H
Xitavo XO 4894E	E3	51 H-M	69 A	58 D-M	18 A-J	44 B-J	68 A-I	50 B-E	49 F-I
Xitavo XO 4772E	E3	51 H-N	64 A	55 F-M	14 F-J	42 F-J	67 A-I	57 A-D	54 A-G
Innvictis A4924XF	XF	50 H-N	66 A	55 G-M	17 E-J	46 A-J	69 A-H	46 EF	54 A-G
Progeny 4798XF	XF	50 H-N	61 A	51 K-M	18 D-J	51 A-E	61 F-J	55 A-E	53 B-H
Pioneer P46Z53E	E3	49 I-N	65 A	58 D-M	17 D-J	37 J	67 A-I	53 A-E	49 D-I
USG 7474XFS	XFS	49 I-N	58 A	57 E-M	17 B-J	47 A-I	62 E-J	56 A-E	49 D-I
Donmario DM46F54S	XF	49 I-N	60 A	57 D-M	15 J	45 B-J	64 C-J	56 A-E	48 F-I
CNI Fortus 4655ES	E3	49 I-N	60 A	60 B-K	15 IJ	38 H-J	70 A-E	52 A-E	49 E-I
Progeny 4999E3S	E3S	49 I-N	55 A	53 I-M	17 C-J	41 G-J	68 A-I	56 A-D	53 B-H
USG 7463XF	XF	49 I-N	61 A	54 I-M	17 C-J	41 F-J	66 B-I	56 A-E	48 F-I
Innvictis A4814XF	XF	49 I-N	65 A	56 E-M	17 A-J	42 E-J	67 A-I	48 C-E	48 G-I
Innvictis A4664XF	XF	49 K-N	61 A	56 E-M	18 D-J	41 F-J	70 A-F	50 B-E	46 HI
Progeny 4806XFS	XFS	49 J-N	60 A	51 LM	18 A-J	43 D-J	66 A-I	49 A-E	54 A-G
Dyna-Gro S47XF23S	XFS	48 K-N	55 A	52 K-M	13 J	48 A-G	64 C-J	55 A-E	51 B-H
MO S20-7117	Conv	48 L-N	63 A	50 M	16 G-J	45 B-J	59 H-J	52 A-E	48 F-I
Progeny 4775E3S	E3S	48 L-N	65 A	55 H-M	21 A-J	53 A-C	55 J	37 F	50 C-I
Revere 4826XFS	XFS	48 MN	58 A	52 J-M	17 B-J	40 F-J	66 A-I	57 A-D	43 I
Progeny 4848XF	XF	47 N	54 A	55 E-M	15 H-J	37 IJ	61 G-J	55 A-E	49 F-I
Average		51	64	59	18	46	67	54	52
Standard Error		6	6	5	2	4	3	4	5
L.S.D. _{.05}		4	N.S.	10	5	9	9	11	8
C.V.		12	14	10	17	13	8	12	9

[†] Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

‡ For a full description of abbreviated biotech traits, see table 29.

§ All yields are adjusted to 13% moisture.

¶ Knoxville excluded due to equipment failure. Memphis excluded due to late harvest.

Table 16. Yields of 14 Maturity Group IV Late (4.6-4.9) and 3 MG early V Glyphosate / Dicamba tolerant soybean varieties in 7 County Standard Tests in Tennessee during 2024.

MS† Avg. Yield	Variety	Avg. Yield§ (bu/acre)	Avg. Moisture (%)							
				Croc 6/24	Gibs 5/31	Henry 6/14	Madison 4/24	MadisonB 5/21	Meigs 4/24	Weakley 4/24
A	Progeny 4947XFS	66.8	11.6	54.0	73.1	64.8	68.2	74.7	70.1	62.3
AB	Dyna-Gro S49XF43S*	65.4	11.4	54.3	60.5	62.4	66.7	72.7	71.3	69.8
ABC	USG 7543XF*	63.3	23.7	56.8	59.0	56.2	65.9	89.5	.	50.6
ABCD	Progeny 5056XFS*	63.1	11.6	50.7	56.1	64.5	61.0	72.9	.	72.0
ABCDE	Pioneer P48Z70BLX	62.3	11.0	53.9	62.0	66.6	63.9	60.3	63.4	65.8
ABCDEF	USG 7495XFS	61.6	11.7	56.9	60.0	58.4	57.8	73.6	55.2	69.1
ABCDEFG	Pioneer P53Z60LX	61.0	11.5	50.0	66.0	48.9	59.2	75.0	.	65.3
ABCDEFG	Beck's 4999XF	60.6	11.1	50.1	57.7	57.1	61.5	73.3	59.5	64.8
BCDEFG	Asgrow 49XF4	60.5	10.9	50.8	57.3	60.4	52.5	76.0	59.9	66.5
BCDEFG	NK 49-C2XFS	59.8	11.1	47.6	54.3	62.1	53.1	70.6	69.4	61.3
CDEFG	Dyna-Gro S47XF23S	57.4	11.0	50.4	45.7	69.3	46.5	63.6	67.9	58.6
CDEFG	Stine 46FD29	56.7	11.1	49.2	51.6	58.5'	51.8	66.4	61.4	58.3
DEFG	Pioneer P46A90LX	56.7	10.9	52.1	59.7	64.7	48.7	59.2	53.4	58.9
DEFG	Beck's 4777XF	56.7	10.9	48.1	45.3	68.5	53.8	59.2	66.1	55.7
EFG	Progeny 4691XF	56.0	11.1	46.8	54.7	58.3	59.5	65.3'	52.6	55.2
FG	USG 7474XFS	55.5	11.7	51.6	45.5	63.6	45.5	67.0	57.7	57.9
G	NK 46-B4XFS	55.2	11.2	35.3	58.8	62.6	55.1	63.1	50.2	61.2
Average		59.9	12.0	51	57	62	57	70	61	62

Data Provided by Ryan Blair, Ext. Area Specialist, Grain and Cotton Variety Testing, and Extension agents in counties shown above.

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability. Values highlighted in light orange are above average for a given trait, MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

County Locations include: Crockett, Gibson, Henry, Madison (x2), Meigs, Weakley

Table 17. Yields and disease ratings of 14 Maturity Group 4 Late (4.6-4.9) & 3 MG 4 Early Glyphosate / Dicamba tolerant soybean varieties in 7 County Standard Tests and in small plot trials at 3 locations in Tennessee during 2024.

Summary from County Tests			Summary from Small Plot Research													
MS	Variety	Avg. Yield (bu/ac)	On-farm Location in Jackson (JAX)				Research & Education Center at Milan (RECM)				Research & Education Center at Milan (RECM)				Soybean Cyst Nematode	
			Yield (bu/ac)		Frogeye leaf spot	Target spot	Brown spot	Yield (bu/ac)		Frogeye leaf spot	Brown spot	Yield (bu/ac)		Frogeye leaf spot		Brown spot
			*Treated	Non-treated				*Treated	Non-treated			*Treated	Non-treated			
BCDEFG	Asgrow 49XF4	60.5	50.7	48.2	NONE	NONE	HIGH	54.3	50.8	NONE	MOD	45.6	44.6	NONE	HIGH	S
DEFG	Beck's 4777XF	56.7	45.4	38.1	LOW	NONE	HIGH	49.8	47.6	LOW	MOD	45.2	43.4	MOD	HIGH	MR
ABCDEFG	Beck's 4999XF	60.6	53.6	48.6	NONE	NONE	MOD	53.3	52.3	NONE	MOD	45.5	45.5	NONE	MOD	MS
CDEFG	Dyna-Gro S47XF23S	57.4	47.1	42.6	LOW	NONE	HIGH	51.3	48.8	LOW	MOD	46.6	44.8	MOD	MOD	MS
AB	Dyna-Gro S49XF43S	65.4	57.4	51.6	NONE	NONE	HIGH	63.4	57.9	NONE	HIGH	49.3	48.3	NONE	HIGH	MS
G	NK 46-B4XFS	55.2	51.8	47.6	LOW	NONE	HIGH	54.5	51.7	LOW	HIGH	47.5	45.0	MOD	HIGH	MS
BCDEFG	NK 49-C2XFS	59.8	55.9	45.7	MOD	NONE	HIGH	61.4	53.4	MOD	MOD	46.5	44.4	MOD	HIGH	MS
DEFG	Pioneer P46A90LX	56.7	46.4	39.5	NONE	NONE	HIGH	59.8	56.3	NONE	MOD	50.6	48.4	NONE	HIGH	R
ABCDE	Pioneer P48Z70BLX	62.3	49.0	47.8	LOW	NONE	HIGH	58.0	55.2	LOW	HIGH	49.9	49.1	LOW	HIGH	R
ABCDEFG	Pioneer P53Z60LX	61.0	47.4	42.4	LOW	NONE	HIGH	47.2	47.5	LOW	HIGH	-	-	-	-	MR
EFG	Progeny 4691XF	56.0	47.6	43.5	HIGH	NONE	HIGH	54.9	50.0	MOD	HIGH	44.9	44.1	HIGH	HIGH	MS
A	Progeny 4947XFS	66.8	55.7	48.7	NONE	NONE	MOD	57.9	56.1	NONE	MOD	51.3	47.9	NONE	HIGH	MR
ABCD	Progeny 5056XFS	63.1	51.8	47.4	LOW	NONE	HIGH	45.3	46.0	LOW	HIGH	-	-	-	-	MR
CDEFG	Stine 46FD29	56.7	50.0	44.1	LOW	NONE	HIGH	54.8	46.7	MOD	HIGH	43.7	41.8	MOD	MOD	MS
FG	USG 7474XFS	55.5	55.4	52.8	NONE	LOW	MOD	53.2	56.4	NONE	MOD	43.3	44.0	MOD	HIGH	S
ABCDEF	USG 7495XFS	61.6	49.7	44.8	LOW	NONE	HIGH	49.8	47.3	LOW	HIGH	48.6	47.0	NONE	HIGH	MS
ABC	USG 7543XF	63.3	-	-	NONE	NONE	MOD	49.9	50.5	NONE	HIGH	-	-	-	-	MS
	Average	59.9	50.9	45.8				54.0	51.4			47.0	45.6			

Yield adjusted to 13.5% moisture

MS= Varieties that have any MS letter in common are not statistically different in yield (based on 95% confidence)

*Treated plots sprayed with Miravis Top @13.7 fl oz/a + 0.25% Induce @ R3 growth stage

JAX varieties planted May 21, sprayed Aug 1, and harvested Oct 10 (MG5 on Oct 14)

RECM varieties planted May 29, sprayed Aug 6, and harvested Oct 16 (MG5 on Oct 20)

WTREC varieties planted June 13, sprayed Aug 21, and harvested Oct 24

NONE, TRACE, LOW, MOD, and HIGH is a relative ranking of disease severity at each location.

Soybean Cyst Nematode rated as Resistant (R), Moderately Resistant (MR), Moderately Susceptible (MS), Susceptible (S), or High Susceptible (HS) to HG Type 1.2.5.7/Race 2

Disease ratings at JAX: Frogeye leaf spot ranged from 0 - 15%, averaged 5%; Target spot from 0 - 1.3%, averaged 0.1%; ; Brown spot from 11 - 20%, averaged 17%

Disease ratings at RECM: Frogeye leaf spot ranged from 0 - 10%, averaged 4%; Target spot was not observed; Brown spot from 11 - 20%, averaged 15%

Disease ratings at WTREC: Frogeye leaf spot ranged from 0 - 14%, averaged 5%; Target spot was not observed; Brown spot from 13 - 19%, averaged 17%

Disease ratings & yield data compiled by Dr. Heather Kelly and Wesley Crowder from replicated plots at 3 locations

County data provided by Ryan Blair, Ext. Area Specialist, Grain and Cotton Variety Testing, and County Extension agents

Soybean Cyst Nematode data provided by Tara Sydboten, USDA Research Plant Pathologist Unit

Table 18. Overall average yields, moistures, and test weights of 15 Maturity Group IV Late and V (4.5 - 5.9) soybean varieties evaluated in both the County Standard Tests and Research and Education Center Tests in Tennessee during 2023.

			Avg. of REC and CST Tests			REC Tests			CST Tests		
			Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	"A group" in both tests	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	"A group"	Avg. Yield [§] (bu/acre)	Avg. Moisture (%)	"A group"
Variety	Herbicide Pkg [†]										
Dyna-Gro S49XF43S	XFS	S22012	61.0	11.1	*	56.7	10.8	*	65.4	11.4	*
Progeny 4947XFS	XFS	S24061	60.9	11.6	*	55.0	11.6	*	66.8	11.6	*
Pioneer P48Z70BLX	E3S-Bolt	S24049	58.5	10.9	*	54.6	10.8	*	62.3	11.0	*
Pioneer P53Z60LX	RR2X/LL	S24052	57.4	11.9	*	53.7	12.4	*	61.0	11.5	*
USG 7495XFS	XFS	S24055	56.6	11.1		51.6	10.5		61.6	11.7	*
USG 7543XF	XF	S23030	55.7	20.2		48.0	16.8		63.3	23.7	*
Progeny 5056XFS	XFS	S22036	54.8	12.2		46.5	12.7		63.1	11.6	*
Pioneer P46A90LX	RR2X/LL	S24047	54.0	11.2		51.3	11.5		56.7	10.9	
Pioneer P47Z15BE	E3S-Bolt	S24048	53.9	11.4	*	56.2	10.4	*	51.5	12.4	*
Pioneer P49Z02E	E3	S24050	53.2	11.1	*	56.4	10.9	*	50.1	11.3	*
Pioneer P50Z95E	E3	S24051	53.2	11.4	*	52.9	11.4	*	53.5	11.3	*
Dyna-Gro S47XF23S	XFS	S22010	52.9	10.9		48.3	10.8		57.4	11.0	
USG 7474XFS	XFS	S23028	52.5	11.3		49.4	10.9		55.5	11.7	
Progeny 4999E3S	E3S	S24054	48.7	11.7		49.1	11.0		48.4	12.4	*
Progeny 4775E3S	E3S	S20071	47.6	11.8		47.6	11.5		47.6	12.2	*
Average			54.7	12.0							

† For a full description of abbreviated biotech traits, see table 23.

§ All yields are adjusted to 13% moisture.

Table 19. Mean[†] yield and agronomic traits of eight Maturity Group V (5.0 - 5.9) soybean varieties evaluated in small plot replicated trials at nine AgResearch and Education Center locations in Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Pioneer P53Z60LX	RR2X/LL	54 A	12.4 BC	142 BC	33 D	1.2
Pioneer P50Z95E	E3	53 A	11.4 C	139 D	34 D	1.1
USG 7543XF	XF	48 B	16.8 A	145 A	38 BC	1.4
MO S20-13179LL55	LL	47 B	12.6 BC	142 BC	41 A	1.4
Progeny 5056XFS	XFS	47 B	12.7 B	142 BC	39 AB	1.4
MO S20-1492	Conv	45 BC	12.0 BC	140 CD	34 D	1.2
USG 7534GT	GT	45 BC	12.9 B	139 D	39 A-C	1.5
MO S20-4428	Conv	42 C	12.2 BC	142 B	37 C	1.1
Average		48	12.9	141	37	1.3
Standard Error		5	0.6	2	2	0.2
L.S.D._{.05}		4	1.2	2	2	-
C.V.		13	15	2	9	-
Site-Years		7	7	7	7	7

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table 20. Mean[†] yields across and by location of eight Maturity Group V (5.0 - 5.9) soybean varieties evaluated in replicated small plot trials at nine AgResearch and Education Center locations in Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§]	Greeneville	Springfield	Springfield	Spring Hill	Milan	Milan	Jackson
		(bu/ac)	Non-Irr. (bu/ac)	Irr. (bu/ac)	Non-Irr. (bu/ac)	Non-Irr. (bu/ac)	Irr. (bu/ac)	Non-Irr. (bu/ac)	Non-Irr. (bu/ac)
		1 yr	1 yr	1 yr	1 yr	1 yr	1 yr	1 yr	1 yr
Pioneer P53Z60LX	RR2X/LL	54 A	53 A	68 AB	24 AB	51 A	65 AB	58 A	57 A
Pioneer P50Z95E	E3	53 A	47 A	69 A	27 A	44 A	72 A	55 A	55 A
USG 7543XF	XF	48 B	45 A	47 C	18 CD	50 A	64 AB	56 A	52 A
MO S20-13179LL55	LL	47 B	51 A	61 A-C	22 BC	41 A	57 BC	54 A	47 A
Progeny 5056XFS	XFS	47 B	54 A	52 C	16 D	45 A	59 BC	55 A	45 A
MO S20-1492	Conv	45 BC	50 A	47 C	17 D	46 A	55 CD	52 A	45 A
USG 7534GT	GT	45 BC	52 A	56 BC	17 D	42 A	53 CD	46 A	46 A
MO S20-4428	Conv	42 C	51 A	49 C	16 D	45 A	47 D	46 A	45 A
Average		48	50	56	20	45	59	53	49
Standard Error		5	2	7	2	3	4	5	5
L.S.D._{.05}		4	N.S.	13	4	N.S.	9	N.S.	N.S.
C.V.		13	7	13	13	11	8	15	14

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

‡ For a full description of abbreviated biotech traits, see table 23.

§ All yields are adjusted to 13% moisture.

Knoxville excluded due to equipment failure. Memphis excluded due to late harvest.

Table 21. Characteristics of soybean varieties evaluated in Tennessee during 2024, as provided by the seed company.

Variety	Rel. Mat.	Herb. Tol. [†]	SCN [‡]	SDS [‡]	Frogeye [‡]	Seed Treatment
Asgrow AG42XF4	4.2	XF	MR3	S 3/9	S	Acceleron Fungicide + Insecticide
Asgrow AG44XF4	4.4	XFS	R3	S 49	S	Acceleron Fungicide + Insecticide
Asgrow AG49XF4	4.9	XFS	MR3	S 6/9	S	Acceleron Fungicide + Insecticide
Benson Hill N35D950S	3.5	Conv	PI88788			CruiserMaxx APX + Saltro
Benson Hill BX37Q467	3.7	Conv	PI88788			CruiserMaxx APX + Saltro
Benson Hill C38H052s	3.8	Conv	PI88788			CruiserMaxx APX + Saltro
Benson Hill BH43Q207	4.3	Conv	PI88788			CruiserMaxx APX + Saltro
Benson Hill C44H054S	4.4	Conv	PI88788			CruiserMaxx APX + Saltro
Benson Hill N44D923S	4.4	Conv	PI88788			CruiserMaxx APX + Saltro
CNI Fortus 4655ES	4.6	E3		R		
CNI Integra XF4634S	4.6	XF		R		
CNI Integra XF4875S	4.8	XF		R		
Donmario DM46F54S	4.6	XF	P188788	FT	FT	Crusier Max Vibrance
Donmario DM48F53*	4.8	XF	NONE	FT	FT	Cruiuser Max Vibrance
Dyna-Gro S38EN75	3.8	E3	R3, MR14	MR	MR	Equity VAYO + Saltro
Dyna-Gro S41EN72	4.1	E3	R3, MR14	MS	MR	Equity VAYO + Saltro
Dyna-Gro S43XF85S	4.3	XFS	MR3, MR14	MR	R	Equity VAYO + Saltro
Dyna-Gro S45EN25	4.5	E3	R3	MS	MR	Equity VAYO + Saltro
Dyna-Gro S47XF23S	4.7	XFS	R3	MR	MS	Equity VAYO + Saltro
Dyna-Gro S48XF35	4.8	XF	MR3	MR	MR	Equity VAYO + Saltro
Dyna-Gro S49XF43S	4.9	XFS	MR3	MS	R	Equity VAYO + Saltro
Great Heart GT4538XFS	4.5	RR/LL-Synchrony	R3/MR14	7	NA	
Great Heart GT4756XF	4.7	RR/LL	R3/MR14	4	7	
Innvictis A3974XF	3.9	XF	3	MR	MR	Revize PBI
Innvictis A4102XF	4.1	XF	3	MR	R	Revize PBI
Innvictis A4411XF	4.4	XF	3	R	R	Revize PBI
Innvictis A4564XF	4.5	XF	3	MR	R	Revize PBI
Innvictis A4664XF	4.6	XF		MR	R	Revize PBI
Innvictis A4814XF	4.8	XF	3	R	MR	Revize PBI
Innvictis A4862XF	4.8	XF	3	R	R	Revize PBI
Innvictis A4924XF	4.9	XF	3	R	MR	Revize PBI
MO S20-2227	4.1	Conv	R - 3, 14			Warden RTA
MO S20-5669	4.5	Conv				Warden RTA
MO S20-14129GT	4.5	RR				Warden RTA
MO S20-15411GT	4.5	RR	R - 1, 3			Warden RTA
MO S20-7117	4.6	Conv				Warden RTA
MO S20-1492	5.0	Conv				Warden RTA
MO S20-4428	5.3	Conv				Warden RTA
MO S20-13179LL55	5.3	LL	R - 1, 3, 14			Warden RTA
Pioneer P38Z63E	3.8	E3	PI88788	S	S	EvergolEnergy + Lumisena .012 +
Pioneer P41Z80BLX	4.1	E3S-Bolt	PI88788	R	R	EvergolEnergy + Lumisena .012 +

Table 21. Cont.

Pioneer P43Z44SE	4.3	E3S	PI88788	S	S	EvergolEnergy + Lumisena .012 +
Pioneer P45Z75E	4.5	E3	PI88788	S	S	EvergolEnergy + Lumisena .012 +
Pioneer P46Z53E	4.6	E3	PI88788	R	S	EvergolEnergy + Lumisena .012 +
Pioneer P46A90LX	4.6	RR2X/LL	PI88788	S	S	EvergolEnergy + Lumisena .012 +
Pioneer P47Z15BE	4.7	E3S-Bolt	PI88788	S	S	EvergolEnergy + Lumisena .012 +
Pioneer P48Z70BLX	4.8	E3S-Bolt	PI88788	S	S	EvergolEnergy + Lumisena .012 +
Pioneer P49Z02E	4.9	E3	PI88788	R	S	EvergolEnergy + Lumisena .012 +
Pioneer P50Z95E	5.0	E3	PI88788	S	S	EvergolEnergy + Lumisena .012 +
Pioneer P53Z60LX	5.3	RR2X/LL	PI88788	S	S	EvergolEnergy + Lumisena .012 +
Progeny 4623XF	4.6	XF	-	MS	MR	ProServo / S
Progeny 4604XFS	4.6	XFS	-	MS	MR	ProServo / S
Progeny 4691XFS	4.6	XFS	-	S	S	Proservo / S
Progeny 4775E3S	4.7	E3S	-	MR	MR	ProServo / S
Progeny 4798XF	4.7	XF	-	MR	MR	ProServo / S
Progeny 4848XF	4.8	XF	-	MS	MS	ProServo / S
Progeny 4806XFS	4.8	XFS	-	S	MS	ProServo / S
Progeny 4999E3S	4.9	E3S	-	-	MR	ProServo / S
Progeny 4947XFS	4.9	XFS	-	MS	MR	ProServo / S
Progeny 5056XFS	5	XFS	-	MS	S	ProServo / S
Revere 44-F44	4.4	XF	R3 MR14	MR	MS	Radius Premium
Revere 47-F77	4.7	XF				Radius Premium
Revere 4826XFS	4.8	XFS	R3 MR14	MS	MS	Radius Premium
Revere 49-F36	4.9	XF	R3 MR14	MS	MS	Radius Premium
USG 7435XFS	4.3	XFS	MR3,MR14	MR	MR	Rancona, Metalaxyl, Imidiclopid
USG 7463XF	4.6	XF	S	MR	MR	Rancona, Metalaxyl, Imidiclopid
USG 7461XFS***	4.6	XFS	R3,MR14	MR	S	Rancona, Metalaxyl, Imidiclopid
USG 7474XFS	4.7	XFS	R3,MR14	MR	MR	Rancona, Metalaxyl, Imidiclopid
USG 7485ETS	4.8	E3S	MR3	MR	MR	Rancona, Metalaxyl, Imidiclopid
USG 7494ETS	4.9	E3S	R3,MR14	MR	MR	Rancona, Metalaxyl, Imidiclopid
USG 7495XFS	4.9	XFS	MR3,MR14	MR	MR	Rancona, Metalaxyl, Imidiclopid
USG 7534GT	5.3	GT	S	MR	R	Rancona, Metalaxyl, Imidiclopid
USG 7543XF	5.4	XF	S	MR	MR	Rancona, Metalaxyl, Imidiclopid
Xitavo XO 3795E	3.7	E3	R3	MR	MS	ObviusPlusPonchoVotivolLevo
Xitavo XO 3855E	3.8	E3	R3	MR	MR	ObviusPlusPonchoVotivolLevo
Xitavo XO 4255E	4.2	E3	R3	MS	MS	ObviusPlusPonchoVotivolLevo
Xitavo XO 4364E	4.3	E3	R3	MR	MR	ObviusPlusPonchoVotivolLevo
Xitavo XO 4405E	4.4	E3	R3	MR	MS	ObviusPlusPonchoVotivolLevo
Xitavo XO 4772E	4.7	E3	R3	MS	MR	ObviusPlusPonchoVotivolLevo
Xitavo XO 4894E	4.8	E3	R3	MR	MR	ObviusPlusPonchoVotivolLevo

† For a full description of abbreviated biotech traits, see table 23.

‡ R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

Table 22. Contact information for soybean seed companies evaluated in yield tests in Tennessee during 2024.

Brand (Company)	Contact	Phone	Email	Web site
Asgrow (Bayer Company)	Wes Rodgers	731-478-4349	wesley.rodgers@bayer.com	www.bayer.com
Benson Hill	Dustin Brucker	515-505-2891	dbrucker@bensonhill.com	bensonhillfarmers.com
Don Mario (GDM Seeds)	Caleb Smitch	217-722-0079	csmith@gdmseeds.com	
Dyna-Gro (Nutrien Ag Solutions)	Brock Sargeant	270-881-3003	brock.sargeant@nutrien.com	www.dynagroseed.com
Great Heart Seed	David Lucas	217-737-6745	dave.lucas772@gmail.com	
Inn victis Seed Solutions	Max Crittenden	254-652-0032	max.crittenden@innvictis.com	www.innvictis.com
Integra	Nick Chammoun	229-854-0524	nchammoun@cniag.com	integraseed.com
MO (University of Missouri)	Michael Clubb	573-379-5431	clubbm@missouri.edu	www.missouri.edu
Pioneer Seeds	Suzannah Wiggins	731-443-0512	suzannah.wiggins@corteva.com	www.pioneer.com
Progeny Ag (Erwin-Keith, Inc)	Brian Murray	870.208.4428	bmurray@progenyag.com	www.progenyag.com
Revere Seed	Charlie Robinette	601-597-3893	Charlie.Robinette@revereseed.com	www.revereseed.com
USG (UniSouth Genetics, Inc.)	Fandrich Supply Co. (Belvidere, TN)	931-967-3377	sburwick@usgseed.com	www.usgseed.com
	Huffstetler & Sons Seed Inc. (Greenfield, TN)	731-235-2167		
	Hurt Seed Co. Inc. (Halls, TN)	731-836-7574		
Xitavo (BASF)	Stacy Burwick	800-505-3133		
	David Pazdernik	317-385-9101	david.pazdernik@basf.com	xitavosoybeanseed.com

Table 23. Abbreviations used to identify biotech traits of soybean varieties evaluated in Tennessee during 2023.

Abbreviation	Name	Characteristic
E3	Corteva Enlist E3	2,4-D choline, Glyphosate, and Glufosinate tolerance
R2	Bayer Roundup Ready 2®	Glyphosate tolerance.
RX	Bayer Roundup Ready 2 Xtend®	Glyphosate and Dicamba tolerance
XF	Bayer XtendFlex	Dicamba, glyphosate, and glufosinate tolerance
Conv.	Conventional	No transgenic modification
S	Sulfonylurea tolerant soybean (May be in combination with above traits)	Sulfonylurea tolerance

Table A-1. Mean[†] yield and agronomic traits of eight Maturity Group III (3.0 - 3.9) soybean varieties evaluated in small plot replicated trials at the Northeast Tennessee AgResearch and Education Center in Greeneville, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Dyna-Gro S38EN75	E3	84 A	13.4 A	131 A	29 C-E	1.0
Benson Hill N35D950S	Conv	77 A	13.6 A	122 C	30 B-D	1.0
Xitavo XO 3795E	E3	74 A	12.9 A	128 AB	32 B	1.0
Innvictis A3974XF	XF	74 A	11.4 A	130 A	36 A	1.0
Benson Hill C38H052s	Conv	74 A	13.2 A	129 AB	29 DE	1.0
Xitavo XO 3855E	E3	73 A	14.6 A	128 AB	25 F	1.0
Pioneer P38Z63E	E3	70 A	13.0 A	126 BC	27 EF	1.0
Benson Hill BX37Q467	Conv	67 A	13.1 A	128 AB	31 BC	1.0
Average		74	13.1	128	30	1.0
Standard Error		4	0.9	1	1	-
L.S.D. _{.05}		N.S.	N.S.	4	2	-
C.V.		8	11	2	4	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

Table A-2. Mean[†] yield and agronomic traits of 24 Maturity Group IV Early (4.0 - 4.5) soybean varieties evaluated in small plot replicated trials at the Northeast Tennessee AgResearch and Education Center in Greeneville, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Dyna-Gro S45EN25	E3	85 A	13.9 AB	135 B-D	38 B-D	1.8
Asgrow AG44XF4	XFS	83 AB	12.6 C-E	136 BC	34 G-K	1.0
Benson Hill C44H054S	Conv	80 A-C	12.1 E	134 C-E	31 KL	1.0
Xitavo XO 4364E	E3	80 A-C	13.1 B-E	131 EF	34 G-K	1.0
Xitavo XO 4405E	E3	79 A-C	12.5 C-E	138 B	34 F-J	1.0
Pioneer P43Z44SE	E3S	79 A-C	12.8 B-E	132 D-F	32 JK	1.0
Dyna-Gro S43XF85S	XFS	78 A-D	12.3 DE	136 BC	35 E-H	1.0
MO S20-2227	Conv	77 A-D	13.8 A-C	131 EF	36 D-G	1.0
Innvictis A4102XF	XF	77 A-D	13.5 B-D	133 C-F	35 E-H	1.3
Pioneer P41Z80BLX	E3S-Bolt	77 A-D	12.8 B-E	130 F	40 AB	1.3
Revere 44-F44	XF	76 A-D	12.1 E	136 B-D	37 C-F	1.0
Great Heart GT4538XFS	RR/LL-Synchrony	76 A-D	13.5 B-D	136 BC	42 A	1.3
Innvictis A4564XF	XF	76 A-D	13.5 B-D	130 F	39 A-C	1.3
MO S20-5669	Conv	76 A-D	12.7 B-E	138 B	34 G-K	1.0
Dyna-Gro S41EN72	E3	75 B-D	12.8 B-E	130 F	32 I-K	1.2
Benson Hill N44D923S	Conv	74 B-E	14.0 AB	130 EF	36 D-H	1.0
Asgrow AG42XF4	XF	74 B-F	12.1 E	135 B-D	36 D-G	1.0
Innvictis A4411XF	XF	73 C-F	13.9 AB	136 BC	38 B-D	1.3
Pioneer P45Z75E	E3	72 C-F	12.9 B-E	131 EF	37 B-E	1.2
Xitavo XO 4255E	E3	72 C-F	12.7 B-E	137 BC	29 L	1.0
MO S20-14129GT	RR	71 C-F	13.5 B-D	136 B-D	38 B-E	1.3
USG 7435XFS	XFS	69 D-F	13.5 B-D	138 B	35 E-I	1.2
Benson Hill BH43Q207	Conv	65 EF	13.1 B-E	131 EF	33 H-K	1.0
MO S20-15411GT	RR	64 F	15.0 A	142 A	37 C-F	2.3
Average		75	13.1	134	36	1.2
Standard Error		5	0.5	1	1	0.1
L.S.D._{.05}		10	1.4	4	3	-
C.V.		8	6	2	5	-

[†] Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

Table A-3. Mean[†] yield and agronomic traits of 40 Maturity Group IV Late (4.6 - 4.9) soybean varieties evaluated in small plot replicated trials at the Northeast Tennessee AgResearch and Education Center in Greeneville, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Asgrow AG49XF4	XFS	78 A	12.4 A-G	137 A	35 A-F	1.3
USG 7461XFS	XFS	73 A	11.9 B-K	139 A	38 AB	1.2
Progeny 4623XF	XF	72 A	11.6 D-K	135 A	36 A-E	1.0
Donmario DM48F53	XF	70 A	11.9 A-K	139 A	28 HI	1.0
Dyna-Gro S49XF43S	XFS	70 A	11.5 G-K	141 A	31 E-I	1.3
CNI Integra XF4875S	XF	70 A	12.8 A	139 A	36 A-E	1.2
Xitavo XO 4894E	E3	69 A	12.7 A-C	140 A	35 A-F	1.2
Revere 49-F36	XF	69 A	12.1 A-J	142 A	37 A-D	1.5
Progeny 4947XFS	XFS	68 A	12.7 AB	137 A	38 A	1.2
Pioneer P47Z15BE	E3S-Bolt	68 A	11.3 I-K	135 A	34 A-G	1.0
Pioneer P49Z02E	E3	67 A	11.7 D-K	140 A	32 D-I	1.0
Pioneer P48Z70BLX	E3S-Bolt	67 A	12.2 A-I	138 A	38 AB	1.2
Progeny 4604XFS	XFS	67 A	11.9 B-K	137 A	35 A-F	1.2
Great Heart GT4756XF	RR/LL	66 A	11.9 A-K	136 A	32 B-I	1.0
Innvictis A4924XF	XF	66 A	11.3 JK	139 A	32 B-I	1.0
USG 7495XFS	XFS	66 A	12.3 A-G	140 A	37 A-C	1.3
Pioneer P46Z53E	E3	65 A	12.0 A-K	134 A	30 G-I	1.0
Innvictis A4814XF	XF	65 A	11.6 D-K	140 A	30 F-I	1.0
Progeny 4775E3S	E3S	65 A	12.4 A-F	137 A	37 A-D	1.3
USG 7485ETS	E3S	64 A	12.1 A-J	139 A	33 A-I	1.0
Xitavo XO 4772E	E3	64 A	12.0 A-K	139 A	32 D-I	1.0
MO S20-7117	Conv	63 A	12.1 A-K	137 A	32 D-I	1.2
Progeny 4691XFS	XFS	63 A	12.2 A-J	137 A	38 AB	1.0
CNI Integra XF4634S	XF	61 A	12.0 A-K	138 A	35 A-F	1.0
USG 7463XF	XF	61 A	12.2 A-H	134 A	32 C-I	1.0
Progeny 4798XF	XF	61 A	12.4 A-E	140 A	34 A-G	1.5
Revere 47-F77	XF	61 A	11.7 D-K	138 A	34 A-G	1.0
Innvictis A4664XF	XF	61 A	11.2 K	133 A	29 G-I	1.0
USG 7494ETS	E3S	61 A	11.6 D-K	136 A	32 B-I	1.0
CNI Fortus 4655ES	E3	60 A	12.4 A-F	135 A	32 B-I	1.2
Donmario DM46F54S	XF	60 A	11.5 E-K	130 A	33 A-I	1.2
Progeny 4806XFS	XFS	60 A	11.7 D-K	137 A	31 E-I	1.0
USG 7474XFS	XFS	58 A	11.6 D-K	138 A	32 D-I	1.0
Revere 4826XFS	XFS	58 A	11.9 B-K	137 A	30 F-I	1.0
Innvictis A4862XF	XF	58 A	11.8 C-K	135 A	33 A-I	1.3
Dyna-Gro S48XF35	XF	56 A	11.3 H-K	137 A	28 I	1.0
Pioneer P46A90LX	RR2X/LL	56 A	12.5 A-D	136 A	31 E-I	1.0
Progeny 4999E3S	E3S	55 A	11.9 A-K	139 A	33 A-H	1.0
Dyna-Gro S47XF23S	XFS	55 A	11.5 F-K	137 A	32 C-I	1.0
Progeny 4848XF	XF	54 A	11.6 D-K	134 A	31 E-I	1.0
Average		64	11.9	137	33	1.1
Standard Error		6	0.3	2	2	0.1
L.S.D. _{.05}		N.S.	0.9	4	5	-
C.V.		14	5	2	10	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.
- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.
- C.V. is only reported for variables evaluated on a ratio scale.
- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.
values are not reported as these would be relative to transformed mean values.
‡ For a full description of abbreviated biotech traits, see table 23.
* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.
§ All yields are adjusted to 13% moisture.
†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-4. Mean[†] yield and agronomic traits of eight Maturity Group V (5.0 - 5.9) soybean varieties evaluated in small plot replicated trials at the Northeast Tennessee AgResearch and Education Center in Greeneville, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Progeny 5056XFS	XFS	54 A	13.3 BC	147 A	34 BC	1.5
Pioneer P53Z60LX	RR2X/LL	53 A	14.0 BC	147 A	31 CD	1.5
USG 7534GT	GT	52 A	12.9 BC	141 B	34 BC	1.0
MO S20-4428	Conv	51 A	15.3 B	148 A	37 B	1.7
MO S20-13179LL55	LL	51 A	15.6 B	148 A	43 A	2.0
MO S20-1492	Conv	50 A	13.8 BC	147 A	35 BC	1.3
Pioneer P50Z95E	E3	47 A	11.9 C	142 B	28 D	1.0
USG 7543XF	XF	45 A	26.7 A	148 A	34 BC	1.3
Average		50	15.4	146	34	1.4
Standard Error		2	0.9	1	2	0.2
L.S.D. _{.05}		N.S.	2.8	2	5	N.S.
C.V.		7	10	1	9	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-5. Mean[†] yield and agronomic traits of eight Maturity Group III (3.0 - 3.9) soybean varieties evaluated in small plot replicated trials at the East Tennessee AgResearch and Education Center in Knoxville, Tennessee during 2024.

Analysis not presented due to equipment failure

Table A-6. Mean[†] yield and agronomic traits of 24 Maturity Group IV Early (4.0 - 4.5) soybean varieties evaluated in small plot replicated trials at the East Tennessee AgResearch and Education Center in Knoxville, Tennessee during 2024.

Analysis not presented due to equipment failure

Table A-7. Mean[†] yield and agronomic traits of 40 Maturity Group IV Late (4.6 - 4.9) soybean varieties evaluated in small plot replicated trials at the East Tennessee AgResearch and Education Center in Knoxville, Tennessee during 2024.

Analysis not presented due to equipment failure

Table A-8. Mean[†] yield and agronomic traits of eight Maturity Group V (5.0 - 5.9) soybean varieties evaluated in small plot replicated trials at the East Tennessee AgResearch and Education Center in Knoxville, Tennessee during 2024.

Analysis not presented due to equipment failure

Table A-9. Mean[†] yield and agronomic traits of eight Maturity Group III (3.0 - 3.9) soybean varieties evaluated in small plot replicated trials at the Highland Rim AgResearch and Education Center - Irrigated Trial in Springfield, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Xitavo XO 3855E	E3	62 A	11.1 A	116 BC	29 C	1.0
Benson Hill C38H052s	Conv	60 AB	10.7 A	116 B	28 C	1.0
Dyna-Gro S38EN75	E3	59 AB	11.9 A	114 D	29 C	1.0
Pioneer P38Z63E	E3	59 AB	10.4 A	114 D	30 BC	1.0
Innvictis A3974XF	XF	56 BC	10.5 A	118 A	36 A	1.0
Benson Hill N35D950S	Conv	56 BC	11.1 A	115 B-D	30 BC	1.0
Benson Hill BX37Q467	Conv	52 C	10.9 A	114 D	32 B	1.0
Xitavo XO 3795E	E3	51 C	11.0 A	114 CD	32 B	1.0
Average		57	11.0	115	31	1.0
Standard Error		2	0.6	1	1	-
L.S.D. _{.05}		5	N.S.	2	3	-
C.V.		5	9	1	5	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-10. Mean[†] yield and agronomic traits of 24 Maturity Group IV Early (4.0 - 4.5) soybean varieties evaluated in small plot replicated trials at the Highland Rim AgResearch and Education Center - Irrigated Trial in Springfield, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Pioneer P45Z75E	E3	63 A	10.7 A-E	124 AB	37 A-D	1.0
Great Heart GT4538XFS	RR/LL-Synchrony	63 AB	10.4 C-F	125 A	39 A-C	1.0
Dyna-Gro S41EN72	E3	62 AB	10.5 B-F	122 D	32 G-L	1.0
Dyna-Gro S45EN25	E3	60 AB	10.5 B-F	123 BC	34 D-I	1.0
USG 7435XFS	XFS	60 A-C	11.2 AB	123 BC	35 C-I	1.0
Innvictis A4564XF	XF	59 A-D	10.7 A-E	124 AB	40 AB	1.0
Pioneer P43Z44SE	E3S	58 A-E	10.8 A-E	121 DE	31 H-L	1.0
MO S20-2227	Conv	57 A-F	11.2 A	120 EF	34 D-J	1.0
Revere 44-F44	XF	57 A-F	10.0 FG	125 A	35 C-H	1.0
Pioneer P41Z80BLX	E3S-Bolt	57 A-F	10.2 E-G	121 DE	41 A	1.0
Asgrow AG44XF4	XFS	56 A-F	10.3 C-F	124 AB	30 J-L	1.0
Xitavo XO 4255E	E3	56 B-F	10.3 C-F	122 CD	28 L	1.0
Asgrow AG42XF4	XF	56 B-F	10.0 FG	123 BC	37 A-E	1.0
MO S20-15411GT	RR	53 C-G	10.3 D-F	125 A	36 A-F	1.0
Innvictis A4102XF	XF	52 D-H	10.7 A-F	124 AB	33 D-K	1.0
Xitavo XO 4364E	E3	52 D-H	11.0 A-C	120 F	32 F-L	1.0
Dyna-Gro S43XF85S	XFS	52 D-H	11.2 A	124 AB	32 F-L	1.0
Xitavo XO 4405E	E3	52 E-H	10.2 EF	124 AB	31 I-L	1.0
Benson Hill N44D923S	Conv	51 F-H	11.0 A-C	120 EF	34 D-J	1.0
Benson Hill BH43Q207	Conv	51 F-H	10.6 A-F	120 EF	32 E-L	1.0
Benson Hill C44H054S	Conv	50 F-H	10.5 C-F	123 BC	29 KL	1.0
MO S20-14129GT	RR	48 GH	9.5 G	124 AB	35 D-I	1.0
Innvictis A4411XF	XF	48 GH	10.9 A-D	124 AB	36 B-G	1.0
MO S20-5669	Conv	45 H	10.3 D-F	124 AB	29 KL	1.0
Average		55	10.5	123	34	1.0
Standard Error		3	0.2	0	2	-
L.S.D._{.05}		7	0.7	1	5	-
C.V.		8	4	1	8	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

Table A-11. Mean[†] yield and agronomic traits of 40 Maturity Group IV Late (4.6 - 4.9) soybean varieties evaluated in small plot replicated trials at the Highland Rim AgResearch and Education Center - Irrigated Trial in Springfield, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Revere 49-F36	XF	71 A	10.1 B-H	133 A	39 A-F	1.3
Pioneer P47Z15BE	E3S-Bolt	70 AB	9.1 JK	129 A	39 A-H	1.0
Dyna-Gro S49XF43S	XFS	67 A-C	9.4 E-K	131 A	33 J-M	1.0
Donmario DM48F53	XF	66 A-D	9.6 D-K	131 A	30 M	1.0
CNI Integra XF4634S	XF	65 A-E	9.2 I-K	129 A	42 AB	1.0
Progeny 4947XFS	XFS	64 A-F	10.8 AB	133 A	41 A-C	1.2
Asgrow AG49XF4	XFS	64 A-G	9.4 F-K	129 A	40 A-D	1.0
USG 7461XFS	XFS	64 A-H	11.5 A	132 A	41 AB	1.0
Pioneer P49Z02E	E3	62 A-I	8.9 K	131 A	33 J-M	1.0
Dyna-Gro S48XF35	XF	62 A-I	9.7 C-K	132 A	34 G-M	1.0
Pioneer P46A90LX	RR2X/LL	62 A-I	9.6 D-K	128 A	38 B-I	1.0
Innvictis A4862XF	XF	62 A-I	9.6 C-K	131 A	34 G-M	1.0
USG 7485ETS	E3S	61 B-J	10.3 B-D	131 A	39 A-F	1.3
Progeny 4604XFS	XFS	61 B-J	9.8 C-J	132 A	38 B-I	1.0
CNI Fortus 4655ES	E3	60 B-K	9.9 C-J	128 A	35 F-L	1.0
Progeny 4623XF	XF	60 C-L	9.5 D-K	131 A	35 F-L	1.0
CNI Integra XF4875S	XF	60 C-L	10.2 B-F	133 A	38 B-J	1.0
Revere 47-F77	XF	59 C-L	9.3 H-K	128 A	43 A	1.0
Pioneer P48Z70BLX	E3S-Bolt	58 C-L	9.4 F-K	130 A	41 A-C	1.0
Pioneer P46Z53E	E3	58 D-M	9.5 D-K	127 A	33 J-M	1.0
Xitavo XO 4894E	E3	58 D-M	10.5 BC	128 A	39 A-G	1.0
Donmario DM46F54S	XF	57 D-M	9.5 D-K	127 A	40 A-E	1.0
USG 7495XFS	XFS	57 D-M	9.8 C-J	132 A	39 A-H	1.0
Great Heart GT4756XF	RR/LL	57 D-M	9.7 C-K	129 A	34 G-M	1.0
USG 7474XFS	XFS	57 E-M	9.5 D-K	129 A	34 H-M	1.0
Innvictis A4814XF	XF	56 E-M	9.4 F-K	132 A	33 K-M	1.0
Innvictis A4664XF	XF	56 E-M	9.4 F-K	128 A	34 G-M	1.0
Progeny 4691XFS	XFS	56 E-M	10.3 B-E	131 A	42 AB	1.0
Progeny 4848XF	XF	55 E-M	9.1 JK	129 A	35 E-L	1.0
USG 7494ETS	E3S	55 F-M	10.1 B-G	128 A	36 C-L	1.0
Xitavo XO 4772E	E3	55 F-M	10.0 B-I	129 A	32 LM	1.0
Innvictis A4924XF	XF	55 G-M	9.1 JK	130 A	34 H-M	1.0
Progeny 4775E3S	E3S	55 H-M	9.8 C-J	129 A	37 B-K	1.0
USG 7463XF	XF	54 I-M	9.3 G-K	127 A	35 E-L	1.0
Progeny 4999E3S	E3S	53 I-M	9.5 D-K	128 A	39 A-H	1.0
Revere 4826XFS	XFS	52 J-M	9.6 D-K	128 A	34 I-M	1.0
Dyna-Gro S47XF23S	XFS	52 K-M	9.1 JK	129 A	33 J-M	1.0
Progeny 4798XF	XF	51 K-M	9.9 C-J	131 A	35 E-L	1.5
Progeny 4806XFS	XFS	51 LM	9.7 C-K	129 A	36 D-L	1.0
MO S20-7117	Conv	50 M	9.5 D-K	128 A	33 K-M	1.0
Average		59	9.7	130	37	1.0
Standard Error		5	0.3	1	2	0.1
L.S.D. _{.05}		10	0.9	2	5	-
C.V.		10	6	1	8	-

[†] Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-12. Mean[†] yield and agronomic traits of eight Maturity Group V (5.0 - 5.9) soybean varieties evaluated in small plot replicated trials at the Highland Rim AgResearch and Education Center - Irrigated Trial in Springfield, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Pioneer P50Z95E	E3	69 A	10.2 C	134 C	37 BC	1.0
Pioneer P53Z60LX	RR2X/LL	68 AB	13.6 AB	139 A	33 C	1.0
MO S20-13179LL55	LL	61 A-C	13.4 BC	138 AB	43 A	1.0
USG 7534GT	GT	56 BC	10.8 BC	134 C	40 AB	1.0
Progeny 5056XFS	XFS	52 C	11.0 BC	134 C	43 A	1.0
MO S20-4428	Conv	49 C	9.9 C	138 AB	41 AB	1.0
USG 7543XF	XF	47 C	17.0 A	140 A	40 AB	1.0
MO S20-1492	Conv	47 C	10.5 BC	136 BC	36 BC	1.0
Average		56	12.0	137	39	1.0
Standard Error		7	1.3	1	3	-
L.S.D. _{.05}		13	3.2	3	5	-
C.V.		13	15	1	8	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-13. Mean[†] yield and agronomic traits of eight Maturity Group III (3.0 - 3.9) soybean varieties evaluated in small plot replicated trials at the Highland Rim AgResearch and Education Center - Non-Irrigated Trial in Springfield, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Innvictis A3974XF	XF	21 A	11.6 A	121 A	30 A	1.0
Benson Hill C38H052s	Conv	21 A	11.4 A	119 AB	26 A	1.0
Xitavo XO 3855E	E3	20 A	11.8 A	117 B-D	27 A	1.0
Pioneer P38Z63E	E3	19 A	11.9 A	115 D	26 A	1.0
Dyna-Gro S38EN75	E3	19 A	11.1 A	117 B-D	28 A	1.0
Benson Hill BX37Q467	Conv	18 A	11.9 A	118 BC	27 A	1.0
Benson Hill N35D950S	Conv	17 A	11.9 A	116 D	25 A	1.0
Xitavo XO 3795E	E3	17 A	11.6 A	116 CD	32 A	1.0
Average		19	11.7	117	27	1.0
Standard Error		2	0.2	1	1	-
L.S.D. _{.05}		N.S.	N.S.	2	N.S.	-
C.V.		13	4	1	9	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

- T Indicate data that were log transformed to meet assumptions of normality, raw means are reported and mean separation letters are given. L.S.D values are not reported as these would be relative to transformed mean values.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-14. Mean[†] yield and agronomic traits of 24 Maturity Group IV Early (4.0 - 4.5) soybean varieties evaluated in small plot replicated trials at the Highland Rim AgResearch and Education Center - Non-Irrigated Trial in Springfield, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Innvictis A4564XF	XF	26 A	12.0 E-I	128 AB	34 AB	1.0
Asgrow AG42XF4	XF	26 AB	11.7 F-I	123 D-H	29 D-H	1.0
Benson Hill BH43Q207	Conv	24 A-C	12.7 A-G	121 H	27 F-I	1.0
Revere 44-F44	XF	24 A-C	12.1 D-I	126 BC	28 F-I	1.0
Dyna-Gro S43XF85S	XFS	23 A-C	13.5 A-C	126 BC	29 D-H	1.0
MO S20-2227	Conv	23 A-C	13.0 A-E	123 D-H	29 D-G	1.0
Pioneer P41Z80BLX	E3S-Bolt	23 A-C	12.4 C-H	124 C-G	36 A	1.0
Xitavo XO 4255E	E3	22 A-C	11.5 HI	121 H	27 G-J	1.0
Innvictis A4102XF	XF	22 A-C	12.8 A-F	122 F-H	29 D-H	1.0
Great Heart GT4538XFS	RR/LL-Synchrony	22 A-C	13.0 A-E	128 A	33 A-C	1.0
USG 7435XFS	XFS	22 A-C	13.7 A	124 C-G	29 D-G	1.0
Pioneer P43Z44SE	E3S	22 A-C	12.4 C-H	122 F-H	24 J	1.0
Xitavo XO 4405E	E3	21 B-D	11.7 F-I	123 E-H	26 G-J	1.0
MO S20-15411GT	RR	20 B-E	13.2 A-E	128 A	36 A	1.0
MO S20-5669	Conv	20 C-E	12.8 A-F	124 C-H	27 G-J	1.0
Pioneer P45Z75E	E3	20 C-E	11.4 HI	124 C-F	31 B-E	1.0
Dyna-Gro S41EN72	E3	20 C-E	13.3 A-D	122 GH	27 G-J	1.0
Innvictis A4411XF	XF	20 C-E	13.7 AB	125 CD	32 B-D	1.0
Dyna-Gro S45EN25	E3	19 C-E	12.8 A-F	122 F-H	31 C-F	1.0
Asgrow AG44XF4	XFS	19 C-E	11.4 HI	121 H	28 E-I	1.0
Benson Hill N44D923S	Conv	19 C-E	13.8 A	121 H	28 E-I	1.0
Xitavo XO 4364E	E3	19 C-E	11.1 I	121 H	26 H-J	1.0
Benson Hill C44H054S	Conv	16 DE	12.5 B-H	122 F-H	25 IJ	1.0
MO S20-14129GT	RR	15 E	11.6 G-I	125 C-E	28 E-I	1.0
Average		21	12.5	124	29	1.0
Standard Error		2	0.4	1	1	-
L.S.D._{.05}		5	1.2	2	4	-
C.V.		15	6	1	8	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-15. Mean[†] yield and agronomic traits of 40 Maturity Group IV Late (4.6 - 4.9) soybean varieties evaluated in small plot replicated trials at the Highland Rim AgResearch and Education Center - Non-Irrigated Trial in Springfield, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
CNI Integra XF4875S	XF	24 A	12.9 B-J	134 A	29 A-E	1.0
USG 7494ETS	E3S	23 AB	12.7 D-K	130 E-I	28 C-H	1.0
Pioneer P49Z02E	E3	23 A-C	12.0 H-L	128 I	26 E-K	1.0
USG 7461XFS	XFS	22 A-D	13.2 A-H	131 C-H	33 A	1.0
Pioneer P48Z70BLX	E3S-Bolt	22 A-E	11.8 J-L	132 B-E	31 A-C	1.0
CNI Integra XF4634S	XF	21 A-F	12.1 H-L	132 B-E	32 AB	1.0
USG 7485ETS	E3S	21 A-F	10.9 LM	130 D-I	33 A	1.0
Progeny 4775E3S	E3S	21 A-J	13.2 A-K	132 B-E	25 F-K	1.0
Innvictis A4862XF	XF	21 A-I	12.5 E-K	132 A-D	27 D-K	1.0
Revere 49-F36	XF	21 A-G	14.1 AB	134 A	28 B-G	1.0
Revere 47-F77	XF	20 A-G	11.9 I-L	132 B-E	28 B-G	1.0
Progeny 4691XFS	XFS	20 A-H	12.6 E-K	131 C-H	30 A-D	1.0
Xitavo XO 4894E	E3	18 A-J	13.0 A-K	129 G-I	30 A-D	1.0
Progeny 4604XFS	XFS	18 B-J	13.9 A-D	133 A-C	29 A-E	1.0
Dyna-Gro S49XF43S	XFS	18 B-J	13.2 A-H	133 A-C	24 I-K	1.0
Progeny 4806XFS	XFS	18 A-J	12.8 B-K	133 AB	27 D-K	1.0
Great Heart GT4756XF	RR/LL	18 B-J	12.4 E-K	131 C-H	26 E-K	1.0
Innvictis A4664XF	XF	18 D-J	13.7 A-E	129 HI	24 I-K	1.0
Progeny 4798XF	XF	18 D-J	12.4 E-K	131 B-G	27 D-J	1.0
USG 7474XFS	XFS	17 B-J	12.9 A-K	133 AB	26 E-K	1.0
Pioneer P46A90LX	RR2X/LL	17 D-J	13.4 A-G	129 HI	28 B-G	1.0
Pioneer P46Z53E	E3	17 D-J	13.9 A-D	128 I	25 F-K	1.0
Revere 4826XFS	XFS	17 B-J	13.0 A-K	131 B-G	27 D-J	1.0
USG 7463XF	XF	17 C-J	13.1 A-J	130 E-I	26 E-K	1.0
Innvictis A4814XF	XF	17 A-J	14.8 A	128 I	25 F-K	1.0
Progeny 4999E3S	E3S	17 C-J	12.9 A-K	129 G-I	31 A-D	1.0
Asgrow AG49XF4	XFS	17 E-J	12.8 C-K	131 B-G	26 E-K	1.0
Innvictis A4924XF	XF	17 E-J	13.1 A-I	130 E-I	27 D-K	1.0
Donmarrio DM48F53	XF	17 D-J	12.2 G-L	130 D-I	23 K	1.0
Progeny 4623XF	XF	17 F-J	11.6 K-M	131 B-G	28 C-H	1.0
Progeny 4947XFS	XFS	17 E-J	13.8 A-E	134 A	30 A-D	1.0
Dyna-Gro S48XF35	XF	16 F-J	13.9 A-E	131 B-F	25 G-K	1.0
MO S20-7117	Conv	16 G-J	13.9 A-F	129 G-I	24 H-K	1.0
Pioneer P47Z15BE	E3S-Bolt	16 F-J	11.9 H-M	129 G-I	28 B-G	1.0
Progeny 4848XF	XF	15 H-J	12.3 G-K	128 I	24 JK	1.0
CNI Fortus 4655ES	E3	15 IJ	14.0 A-C	128 I	24 JK	1.0
Donmarrio DM46F54S	XF	15 J	13.7 A-E	129 HI	28 C-I	1.0
Xitavo XO 4772E	E3	14 F-J	12.7 A-L	129 F-I	25 F-K	1.0
USG 7495XFS	XFS	14 J	10.4 M	131 C-H	29 B-F	1.0
Dyna-Gro S47XF23S	XFS	13 J	14.2 AB	131 C-H	25 F-K	1.0
Average		18	12.9	131	27	1.0
Standard Error		2	0.5	1	1	-
L.S.D. _{.05}		5	1.3	2	4	-
C.V.		17	6	1	9	-

[†] Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-16. Mean[†] yield and agronomic traits of eight Maturity Group V (5.0 - 5.9) soybean varieties evaluated in small plot replicated trials at the Highland Rim AgResearch and Education Center - Non-Irrigated Trial in Springfield, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Pioneer P50Z95E	E3	27 A	11.8 B	134 CD	30 A	1.0
Pioneer P53Z60LX	RR2X/LL	24 AB	11.5 B	138 A	26 A	1.0
MO S20-13179LL55	LL	22 BC	11.9 B	138 AB	26 A	1.0
USG 7543XF	XF	18 CD	14.1 A	138 AB	26 A	1.0
MO S20-1492	Conv	17 D	12.6 AB	136 A-C	26 A	1.0
USG 7534GT	GT	17 D	14.1 A	136 B-D	30 A	1.0
Progeny 5056XFS	XFS	16 D	14.2 A	134 D	28 A	1.0
MO S20-4428	Conv	16 D	10.9 B	134 CD	29 A	1.0
Average		20	12.7	136	28	1.0
Standard Error		2	0.6	1	2	-
L.S.D. _{.05}		4	1.8	2	N.S.	-
C.V.		13	8	1	11	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-17. Mean[†] yield and agronomic traits of eight Maturity Group III (3.0 - 3.9) soybean varieties evaluated in small plot replicated trials at the Middle Tennessee AgResearch and Education Center - Non-Irrigated Trial in Spring Hill, Tennessee during 2024.

Excluded due to high trial variability.

Table A-18. Mean[†] yield and agronomic traits of 24 Maturity Group IV Early (4.0 - 4.5) soybean varieties evaluated in small plot replicated trials at the Middle Tennessee AgResearch and Education Center - Non-Irrigated Trial in Spring Hill, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Pioneer P45Z75E	E3	60 A	10.5 B-E	132 C-F	34 AB	1.0
Innvictis A4102XF	XF	58 AB	10.1 D-F	134 A-C	34 A-C	1.0
MO S20-14129GT	RR	57 A-C	10.3 C-F	134 AB	34 AB	1.0
Great Heart GT4538XFS	RR/LL-Synchrony	56 A-C	10.2 C-F	133 A-D	33 A-E	1.0
Xitavo XO 4405E	E3	55 A-D	10.6 B-E	135 A	29 F-I	1.0
Pioneer P43Z44SE	E3S	54 A-E	9.8 EF	132 B-F	29 F-I	1.0
USG 7435XFS	XFS	52 A-F	10.2 C-F	133 B-D	29 E-I	1.0
Dyna-Gro S41EN72	E3	52 A-F	10.2 C-F	129 HI	30 C-I	1.0
Innvictis A4564XF	XF	52 A-F	11.6 A	131 D-G	35 AB	1.0
Revere 44-F44	XF	51 A-F	10.0 D-F	132 B-E	31 B-G	1.0
Asgrow AG42XF4	XF	50 A-F	10.4 B-E	130 E-H	35 A	1.0
Innvictis A4411XF	XF	49 A-G	10.6 B-E	132 B-F	33 A-E	1.0
Dyna-Gro S45EN25	E3	47 B-G	10.2 C-F	130 F-H	30 C-I	1.0
MO S20-5669	Conv	45 C-H	10.5 B-E	134 AB	30 D-I	1.0
Dyna-Gro S43XF85S	XFS	45 C-H	10.6 B-E	133 A-D	30 C-I	1.0
Xitavo XO 4255E	E3	45 C-H	10.2 C-F	129 HI	27 I	1.0
Asgrow AG44XF4	XFS	43 D-H	9.5 F	129 GH	28 G-I	1.0
MO S20-2227	Conv	43 D-H	11.1 AB	125 J	29 F-I	1.0
Benson Hill N44D923S	Conv	42 E-H	11.0 A-C	127 IJ	33 A-F	1.0
MO S20-15411GT	RR	42 F-H	10.5 B-E	133 A-D	27 HI	1.0
Benson Hill BH43Q207	Conv	41 F-H	10.5 B-E	126 J	31 B-H	1.0
Pioneer P41Z80BLX	E3S-Bolt	37 GH	10.2 C-F	126 J	33 A-D	1.0
Benson Hill C44H054S	Conv	37 GH	10.3 B-F	130 F-H	28 G-I	1.0
Xitavo XO 4364E	E3	34 H	10.7 A-D	126 J	27 HI	1.0
Average		48	10.4	131	31	1.0
Standard Error		5	0.4	1	1	-
L.S.D._{.05}		12	0.9	2	4	-
C.V.		16	5	1	8	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

- T Indicate data that were log transformed to meet assumptions of normality, raw means are reported and mean separation letters are given.

L.S.D values are not reported as these would be relative to transformed mean values.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

Table A-19. Mean[†] yield and agronomic traits of 40 Maturity Group IV Late (4.6 - 4.9) soybean varieties evaluated in small plot replicated trials at the Middle Tennessee AgResearch and Education Center - Non-Irrigated Trial in Spring Hill, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Innictis A4862XF	XF	55 A	10.9 F-M	135 D-H	30 F-K	1.0
Progeny 4947XFS	XFS	53 AB	11.0 E-M	139 A	35 AB	1.2
Donmario DM48F53	XF	53 AB	11.2 C-M	136 C-G	29 G-K	1.0
Progeny 4775E3S	E3S	53 A-C	11.5 B-I	134 H-L	34 A-C	1.0
Pioneer P48Z70BLX	E3S-Bolt	53 A-E	11.8 B-G	135 D-H	36 A	1.0
Asgrow AG49XF4	XFS	52 A-D	10.8 G-M	135 D-H	34 A-E	1.0
Progeny 4798XF	XF	51 A-E	10.3 MN	136 B-F	31 C-K	1.3
Pioneer P49Z02E	E3	51 A-E	11.0 E-M	136 C-G	31 C-J	1.0
Progeny 4623XF	XF	50 A-F	11.3 C-K	134 F-J	33 A-G	1.0
CNI Integra XF4875S	XF	50 A-G	11.4 C-K	138 AB	33 A-G	1.3
Dyna-Gro S49XF43S	XFS	49 A-G	10.4 L-N	139 A	29 G-K	1.0
USG 7494ETS	E3S	48 A-G	11.8 B-E	132 L	32 B-I	1.0
Dyna-Gro S47XF23S	XFS	48 A-G	11.6 B-I	134 G-K	33 A-F	1.0
Great Heart GT4756XF	RR/LL	48 A-G	11.1 D-M	135 E-I	28 I-K	1.0
Dyna-Gro S48XF35	XF	48 A-G	10.7 H-M	137 B-E	29 G-K	1.0
Revere 49-F36	XF	47 A-H	11.1 D-M	139 A	33 A-H	1.2
USG 7474XFS	XFS	47 A-I	11.2 C-L	137 B-D	30 F-K	1.0
Progeny 4691XFS	XFS	46 A-J	12.1 A-C	133 J-L	34 A-D	1.0
Innictis A4924XF	XF	46 A-J	11.0 E-M	137 B-D	30 F-K	1.0
Pioneer P47Z15BE	E3S-Bolt	46 A-J	10.5 K-M	134 G-K	31 C-J	1.0
USG 7461XFS	XFS	46 A-J	11.1 D-M	135 E-I	33 A-H	1.0
Revere 47-F77	XF	45 B-J	11.2 C-L	134 F-J	32 A-I	1.0
Donmario DM46F54S	XF	45 B-J	11.9 B-D	133 I-L	32 A-I	1.2
MO S20-7117	Conv	45 B-J	11.9 B-E	134 G-K	31 C-J	1.0
Xitavo XO 4894E	E3	44 B-J	12.4 AB	133 J-L	27 JK	1.0
Pioneer P46A90LX	RR2X/LL	44 C-J	11.8 B-F	132 L	30 C-K	1.0
Progeny 4806XFS	XFS	43 D-J	11.1 D-M	137 B-D	29 G-K	1.0
Progeny 4604XFS	XFS	43 E-J	10.6 J-M	137 B-D	33 A-G	1.0
Innictis A4814XF	XF	42 E-J	10.5 K-M	137 B-E	28 JK	1.0
USG 7495XFS	XFS	42 F-J	9.5 N	138 AB	33 A-G	1.5
CNI Integra XF4634S	XF	42 F-J	11.4 C-K	135 F-I	33 A-F	1.0
Xitavo XO 4772E	E3	42 F-J	11.6 B-H	135 D-H	27 K	1.0
USG 7463XF	XF	41 F-J	11.3 C-L	132 L	31 C-J	1.0
Innictis A4664XF	XF	41 F-J	10.7 I-M	132 L	30 E-K	1.0
USG 7485ETS	E3S	41 E-J	10.8 F-M	133 H-L	29 D-K	1.0
Progeny 4999E3S	E3S	41 G-J	11.5 C-J	134 G-K	29 H-K	1.0
Revere 4826XFS	XFS	40 F-J	11.1 C-M	138 A-C	27 JK	1.0
CNI Fortus 4655ES	E3	38 H-J	12.9 A	132 KL	28 I-K	1.0
Progeny 4848XF	XF	37 IJ	10.3 MN	134 F-J	27 JK	1.0
Pioneer P46Z53E	E3	37 J	11.2 C-L	132 KL	27 JK	1.0
Average		46	11.2	135	31	1.0
Standard Error		4	0.4	1	2	0.1
L.S.D._{.05}		9	0.9	2	4	0.2
C.V.		13	5	1	8	10

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.
- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.
- C.V. is only reported for variables evaluated on a ratio scale.
- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.
- † Indicate data that were log transformed to meet assumptions of normality, raw means are reported and mean separation letters are given. L.S.D values are not reported as these would be relative to transformed mean values.
‡ For a full description of abbreviated biotech traits, see table 23.
* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.
§ All yields are adjusted to 13% moisture.

Table A-20. Mean[†] yield and agronomic traits of eight Maturity Group V (5.0 - 5.9) soybean varieties evaluated in small plot replicated trials at the Middle Tennessee AgResearch and Education Center - Non-Irrigated Trial in Spring Hill, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Pioneer P53Z60LX	RR2X/LL	51 A	10.1 D	141 BC	28 D	1.0
USG 7543XF	XF	50 A	17.4 A	153 A	34 AB	1.0
MO S20-1492	Conv	46 A	11.0 B-	139 C	30 CD	1.0
Progeny 5056XFS	XFS	45 A	11.5 B	140 BC	33 BC	1.0
MO S20-4428	Conv	45 A	10.6 B-	139 C	34 AB	1.0
Pioneer P50Z95E	E3	44 A	10.3 CD	139 C	28 D	1.0
USG 7534GT	GT	42 A	11.2 BC	143 BC	35 AB	1.0
MO S20-13179LL55	LL	41 A	10.5 CD	144 B	37 A	1.0
Average		45	11.6	142	32	1.0
Standard Error		3	0.3	2	1	-
L.S.D. _{.05}		N.S.	1.0	5	4	-
C.V.		11	5	2	7	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-21. Mean[†] yield and agronomic traits of eight Maturity Group III (3.0 - 3.9) soybean varieties evaluated in small plot replicated trials at the Milan AgResearch and Education Center - Irrigated Trial in Milan, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Xitavo XO 3855E	E3	66 A	12.7 A	126 AB	34 C	1.0
Dyna-Gro S38EN75	E3	66 A	12.7 A	125 B	40 B	1.0
Pioneer P38Z63E	E3	64 A	12.4 A	121 C	39 B	1.0
Innvictis A3974XF	XF	64 A	14.5 A	127 A	47 A	1.0
Xitavo XO 3795E	E3	62 A	12.3 A	125 AB	40 B	1.0
Benson Hill N35D950S	Conv	60 A	12.2 A	118 D	38 B	1.0
Benson Hill BX37Q467	Conv	56 A	12.8 A	121 C	39 B	1.0
Benson Hill C38H052s	Conv	55 A	12.2 A	125 AB	33 C	1.0
Average		61	12.7	123	39	1.0
Standard Error		3	0.6	1	1	-
L.S.D. _{.05}		N.S.	N.S.	2	3	-
C.V.		7	8	1	5	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a a scale of 1 (no lodging) to 5 (complete lodging).

Table A-22. Mean[†] yield and agronomic traits of 24 Maturity Group IV Early (4.0 - 4.5) soybean varieties evaluated in small plot replicated trials at the Milan AgResearch and Education Center - Irrigated Trial in Milan, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Pioneer P45Z75E	E3	82 A	10.2 A-E	133 F-I	40 CD	1.7
Dyna-Gro S41EN72	E3	78 AB	10.6 A-C	133 F-I	36 E-H	4.0
Innvictis A4564XF	XF	74 A-C	10.1 B-F	138 B-D	45 A	3.7
Xitavo XO 4364E	E3	73 A-C	10.2 B-F	132 H-K	35 F-I	1.0
Xitavo XO 4405E	E3	72 B-D	10.1 B-F	140 A-C	37 C-F	1.0
Revere 44-F44	XF	71 B-E	11.0 A	142 AB	41 BC	1.0
Pioneer P41Z80BLX	E3S-Bolt	71 B-E	10.8 AB	128 KL	44 AB	1.3
Benson Hill C44H054S	Conv	69 C-F	10.1 B-F	136 C-H	32 I	1.0
Pioneer P43Z44SE	E3S	69 C-F	9.9 C-F	131 I-L	33 HI	1.0
Innvictis A4411XF	XF	68 C-F	10.6 A-C	143 A	39 C-E	2.0
USG 7435XFS	XFS	68 C-F	10.2 B-F	138 C-E	39 C-E	1.3
Asgrow AG44XF4	XFS	68 C-F	9.7 EF	138 C-E	37 D-G	2.0
Asgrow AG42XF4	XF	67 C-F	10.0 C-F	134 E-I	41 BC	1.0
Great Heart GT4538XFS	RR/LL-Synchrony	67 C-F	9.9 C-F	135 D-I	46 A	2.3
Xitavo XO 4255E	E3	67 C-F	10.2 B-F	133 G-J	33 G-I	1.0
Dyna-Gro S45EN25	E3	67 C-F	10.2 A-E	133 G-J	38 C-F	2.0
MO S20-15411GT	RR	66 C-F	11.0 A	143 A	35 F-I	1.0
MO S20-5669	Conv	66 C-F	10.4 A-E	136 C-G	36 E-H	1.0
Dyna-Gro S43XF85S	XFS	66 C-F	10.0 C-F	137 C-F	38 C-F	1.0
Benson Hill N44D923S	Conv	66 C-F	10.0 C-F	128 KL	39 C-F	1.3
Innvictis A4102XF	XF	65 C-F	9.4 F	136 C-H	41 BC	3.7
MO S20-14129GT	RR	63 D-F	10.1 B-F	136 C-G	37 C-F	2.3
MO S20-2227	Conv	62 EF	10.5 A-D	129 J-L	37 D-G	1.0
Benson Hill BH43Q207	Conv	61 F	9.8 D-F	127 L	36 E-H	1.0
Average		69	10.2	135	38	1.7
Standard Error		4	0.3	1	1	0.4
L.S.D._{.05}		9	0.8	4	4	-
C.V.		8	5	2	6	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-23. Mean[†] yield and agronomic traits of 40 Maturity Group IV Late (4.6 - 4.9) soybean varieties evaluated in small plot replicated trials at the Milan AgResearch and Education Center - Irrigated Trial in Milan, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Pioneer P49Z02E	E3	75 A	9.9 A-H	148 A	36 K-M	1.3
Pioneer P47Z15BE	E3S-Bolt	75 AB	8.8 IJ	136 L-N	39 F-K	1.7
Dyna-Gro S49XF43S	XFS	74 AB	9.9 B-F	145 A-D	37 J-M	2.7
Pioneer P46A90LX	RR2X/LL	74 AB	10.3 A-D	139 G-M	42 B-F	2.7
USG 7495XFS	XFS	72 A-D	9.7 B-J	143 B-G	44 A-E	3.0
Progeny 4691XFS	XFS	72 A-C	10.1 A-E	142 D-H	46 AB	2.3
Progeny 4947XFS	XFS	71 A-E	10.5 A-C	147 A-C	41 C-I	1.3
Asgrow AG49XF4	XFS	71 A-D	10.4 A-C	140 F-K	42 C-G	1.3
Donmarino DM48F53	XF	71 A-D	9.2 F-J	142 D-H	34 M	1.3
CNI Fortus 4655ES	E3	70 A-E	9.8 B-I	140 F-L	37 J-M	1.3
CNI Integra XF4875S	XF	70 A-F	10.4 AB	145 A-E	42 C-G	2.0
Innvictis A4664XF	XF	70 A-F	9.7 B-I	136 MN	40 E-J	2.0
Pioneer P48Z70BLX	E3S-Bolt	70 A-H	9.1 E-J	139 F-L	47 A	2.3
Revere 47-F77	XF	69 A-F	9.4 E-J	140 F-L	44 A-D	2.3
USG 7494ETS	E3S	69 A-G	10.8 A	142 D-H	40 E-J	1.7
Innvictis A4862XF	XF	69 A-G	9.6 B-J	143 C-F	36 K-M	1.3
Innvictis A4924XF	XF	69 A-H	10.0 B-F	142 D-H	38 I-L	1.3
Progeny 4999E3S	E3S	68 A-I	9.4 D-J	143 C-F	41 D-I	1.7
Xitavo XO 4894E	E3	68 A-I	10.1 A-F	141 F-J	41 C-H	2.3
Revere 49-F36	XF	67 A-I	10.0 A-F	147 AB	45 A-C	2.7
Progeny 4623XF	XF	67 A-I	9.6 B-J	142 D-H	39 F-K	1.3
Innvictis A4814XF	XF	67 A-I	9.7 B-I	145 A-E	37 J-M	1.0
Xitavo XO 4772E	E3	67 A-I	9.7 B-J	142 D-J	38 H-L	2.0
Pioneer P46Z53E	E3	67 A-I	10.0 B-F	136 L-N	37 J-M	1.0
Revere 4826XFS	XFS	66 A-I	9.6 C-J	141 F-J	39 G-K	2.0
Progeny 4806XFS	XFS	66 A-I	9.5 B-J	148 A	40 E-K	1.3
USG 7463XF	XF	66 B-I	9.6 B-J	138 J-M	40 E-J	1.0
Progeny 4604XFS	XFS	64 C-J	9.1 G-J	142 D-H	44 A-D	1.7
USG 7485ETS	E3S	64 C-J	9.4 D-J	141 F-J	38 I-L	2.7
Great Heart GT4756XF	RR/LL	64 C-J	9.4 E-J	140 F-L	40 E-J	3.3
Donmarino DM46F54S	XF	64 C-J	10.1 A-F	134 N	42 C-H	3.0
Dyna-Gro S47XF23S	XFS	64 C-J	8.8 J	140 F-K	41 D-I	1.7
USG 7461XFS	XFS	63 C-J	9.5 B-J	142 E-I	42 C-I	1.3
Dyna-Gro S48XF35	XF	63 D-J	9.0 G-J	145 A-E	35 LM	1.0
USG 7474XFS	XFS	62 E-J	9.7 B-I	142 E-I	37 J-M	1.7
Progeny 4798XF	XF	61 F-J	9.4 E-J	143 C-F	41 D-I	1.3
Progeny 4848XF	XF	61 G-J	9.4 E-J	137 K-N	38 I-L	1.0
CNI Integra XF4634S	XF	60 IJ	8.9 H-J	139 I-M	40 E-J	1.3
MO S20-7117	Conv	59 H-J	9.9 A-I	140 F-L	42 C-I	1.3
Progeny 4775E3S	E3S	55 J	9.9 A-G	139 H-M	41 D-J	1.3
Average		67	9.7	141	40	1.8
Standard Error		3	0.3	1	1	0.5
L.S.D. _{.05}		9	0.9	4	4	-
C.V.		8	5	2	5	-

[†] Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

[‡] For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

[§] All yields are adjusted to 13% moisture.

^{††} Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-24. Mean[†] yield and agronomic traits of eight Maturity Group V (5.0 - 5.9) soybean varieties evaluated in small plot replicated trials at the Milan AgResearch and Education Center - Irrigated Trial in Milan, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Pioneer P50Z95E	E3	72 A	11.4 CD	149 B	37 CD	1.7
Pioneer P53Z60LX	RR2X/LL	65 AB	11.8 CD	147 BC	34 D	1.0
USG 7543XF	XF	64 AB	12.1 BC	154 A	43 A	2.0
Progeny 5056XFS	XFS	59 BC	12.0 CD	153 A	42 AB	2.3
MO S20-13179LL55	LL	57 BC	11.6 CD	142 D	45 A	2.0
MO S20-1492	Conv	55 CD	11.3 D	145 CD	35 D	1.0
USG 7534GT	GT	53 CD	12.8 AB	143 D	42 AB	3.3
MO S20-4428	Conv	47 D	12.9 A	156 A	39 BC	1.3
Average		59	12.0	149	40	1.8
Standard Error		4	0.3	1	1	0.5
L.S.D. _{.05}		9	0.8	3	4	-
C.V.		8	4	1	6	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-25. Mean[†] yield and agronomic traits of eight Maturity Group III (3.0 - 3.9) soybean varieties evaluated in small plot replicated trials at the Milan Rim AgResearch and Education Center - Non-Irrigated Trial in Milan, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Dyna-Gro S38EN75	E3	53 A	12.3 A	119 B	35 CD	1.0
Xitavo XO 3795E	E3	49 A	12.0 A	121 B	38 B	1.0
Xitavo XO 3855E	E3	47 A	12.0 A	120 B	33 D	1.0
Pioneer P38Z63E	E3	47 A	12.9 A	119 B	34 D	1.0
Innvictis A3974XF	XF	46 A	12.7 A	125 A	44 A	1.0
Benson Hill C38H052s	Conv	45 A	12.1 A	121 B	33 D	1.0
Benson Hill BX37Q467	Conv	45 A	12.3 A	118 B	38 BC	1.0
Benson Hill N35D950S	Conv	43 A	11.7 A	119 B	34 D	1.0
Average		47	12.2	120	36	1.0
Standard Error		4	0.3	1	1	-
L.S.D. _{.05}		N.S.	N.S.	3	3	-
C.V.		14	5	1	4	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a a scale of 1 (no lodging) to 5 (complete lodging).

Table A-26. Mean[†] yield and agronomic traits of 24 Maturity Group IV Early (4.0 - 4.5) soybean varieties evaluated in small plot replicated trials at the Milan Rim AgResearch and Education Center - Non-Irrigated Trial in Milan, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Dyna-Gro S43XF85S	XFS	62 A	10.6 A	134 B-D	35 C-G	1.0
Xitavo XO 4364E	E3	62 A	10.7 A	131 D-F	33 E-H	1.0
Asgrow AG44XF4	XFS	59 A	9.9 A	139 A	31 H	1.0
Asgrow AG42XF4	XF	58 A	10.3 A	133 CD	36 C-F	1.0
MO S20-15411GT	RR	58 A	11.4 A	139 A	36 C-F	1.0
Dyna-Gro S41EN72	E3	58 A	10.5 A	132 DE	38 A-D	1.0
Innvictis A4411XF	XF	56 A	10.9 A	139 A	38 A-D	1.0
Benson Hill N44D923S	Conv	55 A	11.1 A	126 G	36 C-E	1.0
Great Heart GT4538XFS	RR/LL-Synchrony	55 A	10.1 A	133 CD	41 A	1.0
Pioneer P45Z75E	E3	55 A	9.7 A	127 FG	37 B-D	1.0
Innvictis A4564XF	XF	55 A	10.4 A	136 A-C	41 AB	1.0
Revere 44-F44	XF	55 A	10.4 A	137 AB	38 A-C	1.0
Pioneer P43Z44SE	E3S	54 A	10.3 A	127 FG	32 GH	1.0
MO S20-2227	Conv	54 A	10.8 A	128 E-G	36 C-F	1.0
Xitavo XO 4255E	E3	52 A	10.3 A	127 G	33 E-H	1.0
MO S20-14129GT	RR	52 A	10.2 A	136 A-C	36 C-F	1.0
Xitavo XO 4405E	E3	51 A	9.7 A	138 AB	33 F-H	1.0
Benson Hill C44H054S	Conv	50 A	10.1 A	133 CD	31 H	1.0
Innvictis A4102XF	XF	50 A	9.8 A	131 D-F	38 A-C	1.0
Pioneer P41Z80BLX	E3S-Bolt	50 A	10.1 A	128 E-G	41 A	1.0
Dyna-Gro S45EN25	E3	50 A	10.5 A	128 E-G	37 CD	1.0
USG 7435XFS	XFS	49 A	10.3 A	134 B-D	34 D-H	1.0
Benson Hill BH43Q207	Conv	48 A	10.1 A	125 G	36 C-E	1.0
MO S20-5669	Conv	46 A	10.5 A	135 A-D	33 E-H	1.0
Average		54	10.4	132	36	1.0
Standard Error		5	0.3	2	1	-
L.S.D._{.05}		N.S.	N.S.	4	4	-
C.V.		14	5	2	6	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-27. Mean[†] yield and agronomic traits of 40 Maturity Group IV Late (4.6 - 4.9) soybean varieties evaluated in small plot replicated trials at the Milan Rim AgResearch and Education Center - Non-Irrigated Trial in Milan, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Revere 49-F36	XF	61 A	11.1 B-F	145 A	42 A-C	1.7
CNI Integra XF4875S	XF	60 A	10.9 B-H	149 A	40 B-E	1.7
Progeny 4691XFS	XFS	60 AB	11.1 B-F	141 A	38 E-I	1.3
Pioneer P47Z15BE	E3S-Bolt	60 AB	10.5 E-J	134 A	39 C-F	1.0
Pioneer P49Z02E	E3	60 AB	11.1 B-F	140 A	36 G-L	1.0
Donmarrio DM48F53	XF	59 AB	10.2 I-K	140 A	32 M	1.0
Dyna-Gro S48XF35	XF	59 AB	10.5 F-J	145 A	35 H-L	1.0
USG 7494ETS	E3S	58 A-C	11.2 A-E	138 A	41 B-E	1.3
Progeny 4947XFS	XFS	57 A-C	11.0 B-G	149 A	39 C-F	1.3
Revere 4826XFS	XFS	57 A-D	10.3 G-K	137 A	39 C-F	1.3
Pioneer P48Z70BLX	E3S-Bolt	57 A-D	10.3 G-K	140 A	45 A	1.3
CNI Integra XF4634S	XF	57 A-D	10.6 E-J	137 A	42 A-C	1.3
Pioneer P46A90LX	RR2X/LL	57 A-D	11.0 B-G	137 A	39 C-F	1.0
Xitavo XO 4772E	E3	57 A-D	10.9 B-I	140 A	35 I-L	1.0
Progeny 4999E3S	E3S	56 A-D	10.7 D-J	140 A	38 E-I	1.0
Dyna-Gro S49XF43S	XFS	56 A-D	10.2 I-K	144 A	34 J-M	1.3
Revere 47-F77	XF	56 A-D	10.7 C-J	139 A	43 AB	2.0
USG 7474XFS	XFS	56 A-E	10.5 E-J	138 A	38 E-I	1.3
USG 7463XF	XF	56 A-E	11.4 A-D	137 A	39 C-F	1.3
Donmarrio DM46F54S	XF	56 A-E	11.4 A-D	136 A	39 D-G	1.3
Progeny 4798XF	XF	55 A-E	10.7 C-J	146 A	37 F-J	1.7
USG 7485ETS	E3S	55 A-E	10.8 C-J	138 A	39 D-G	1.7
USG 7495XFS	XFS	55 A-E	10.6 E-J	146 A	40 B-E	2.3
Asgrow AG49XF4	XFS	55 A-E	10.3 G-K	140 A	38 D-H	1.3
Progeny 4848XF	XF	55 A-E	11.0 B-G	141 A	38 E-I	1.0
Dyna-Gro S47XF23S	XFS	55 A-E	10.1 J-K	139 A	40 B-E	2.0
Progeny 4604XFS	XFS	54 A-E	10.8 C-J	140 A	43 AB	1.7
USG 7461XFS	XFS	54 A-E	10.3 G-K	139 A	39 C-F	1.3
Great Heart GT4756XF	RR/LL	53 A-E	9.7 K	138 A	37 F-K	1.0
Pioneer P46Z53E	E3	53 A-E	11.9 A	137 A	36 F-K	1.0
CNI Fortus 4655ES	E3	52 A-E	11.4 A-C	134 A	37 F-K	1.0
MO S20-7117	Conv	52 A-E	11.6 AB	139 A	37 F-J	1.3
Innvictis A4862XF	XF	51 A-E	10.4 F-K	145 A	38 E-I	1.3
Xitavo XO 4894E	E3	50 B-E	10.7 C-J	138 A	41 B-D	1.0
Innvictis A4664XF	XF	50 B-E	10.8 C-J	135 A	36 F-K	1.0
Progeny 4806XFS	XFS	49 A-E	10.5 E-J	143 A	33 LM	1.3
Innvictis A4814XF	XF	48 C-E	10.4 F-J	147 A	35 H-L	1.0
Progeny 4623XF	XF	46 D-F	10.5 E-J	145 A	34 K-M	1.3
Innvictis A4924XF	XF	46 EF	10.2 H-K	144 A	36 G-L	1.0
Progeny 4775E3S	E3S	37 F	11.4 A-D	141 A	36 G-L	2.0
Average		54	10.7	141	38	1.3
Standard Error		4	0.3	2	1	0.3
L.S.D. _{.05}		11	0.8	5	3	-
C.V.		12	4	2	5	-

[†] Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

[‡] For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

[§] All yields are adjusted to 13% moisture.

^{††} Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-28. Mean[†] yield and agronomic traits of eight Maturity Group V (5.0 - 5.9) soybean varieties evaluated in small plot replicated trials at the Milan Rim AgResearch and Education Center - Non-Irrigated Trial in Milan, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Pioneer P53Z60LX	RR2X/LL	58 A	13.1 B	142 B-	34 B	2.0
USG 7543XF	XF	56 A	14.1 A	146 AB	44 A	2.7
Pioneer P50Z95E	E3	55 A	12.6 B	138 D	38 B	1.0
Progeny 5056XFS	XFS	55 A	12.8 B	147 A	43 A	2.0
MO S20-13179LL55	LL	54 A	12.8 B	144 A-	46 A	1.7
MO S20-1492	Conv	52 A	12.7 B	140 CD	36 B	2.0
USG 7534GT	GT	46 A	14.7 A	140 CD	44 A	2.3
MO S20-4428	Conv	46 A	13.0 B	142 B-	37 B	1.0
Average		53	13.2	142	40	1.8
Standard Error		5	0.3	2	2	0.4
L.S.D. _{.05}		N.S.	1.0	5	5	-
C.V.		15	4	2	7	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a a scale of 1 (no lodging) to 5 (complete lodging).

Table A-29. Mean[†] yield and agronomic traits of eight Maturity Group III (3.0 - 3.9) soybean varieties evaluated in small plot replicated trials at the West Tennessee AgResearch and Education Center in Jackson, Tennessee during 2024.

Excluded due to high trial variability.

Table A-30. Mean[†] yield and agronomic traits of 24 Maturity Group IV Early (4.0 - 4.5) soybean varieties evaluated in small plot replicated trials at the West Tennessee AgResearch and Education Center in Jackson, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Pioneer P45Z75E	E3	60 A	10.8 A-F	124 B-E	42 C-E	1.0
Great Heart GT4538XFS	RR/LL-Synchrony	52 A	10.5 A-E	126 A-D	50 A	1.0
USG 7435XFS	XFS	51 A	10.7 A-D	129 A	41 D-F	1.0
Pioneer P43Z44SE	E3S	50 A	10.1 A-G	123 C-E	37 HI	1.0
Innictis A4564XF	XF	50 A	10.3 A-F	126 A-D	49 A	1.3
MO S20-15411GT	RR	49 A	10.9 A-C	129 A	42 C-E	1.0
MO S20-5669	Conv	48 A	11.0 A	127 A-C	37 G-I	1.0
Revere 44-F44	XF	48 A	9.4 E-G	126 A-D	43 CD	1.0
Innictis A4102XF	XF	47 A	10.3 A-G	125 A-E	41 D-F	1.3
Innictis A4411XF	XF	46 A	10.9 A-C	127 A-C	45 BC	1.0
Asgrow AG42XF4	XF	46 A	10.3 A-F	124 B-E	43 CD	1.0
Benson Hill C44H054S	Conv	45 A	9.4 E-G	123 C-E	34 I	1.0
Dyna-Gro S41EN72	E3	45 A	11.1 A	126 A-D	39 E-H	1.0
Asgrow AG44XF4	XFS	44 A	9.0 G	122 DE	41 D-F	1.0
Dyna-Gro S43XF85S	XFS	43 A	11.0 AB	128 AB	41 D-G	1.0
Benson Hill BH43Q207	Conv	43 A	9.6 D-G	115 H	39 E-H	1.0
Xitavo XO 4364E	E3	43 A	9.8 B-G	122 DE	38 F-H	1.0
Xitavo XO 4405E	E3	42 A	9.3 FG	127 A-D	41 D-F	1.0
Pioneer P41Z80BLX	E3S-Bolt	42 A	9.4 E-G	118 F-H	48 AB	1.0
Benson Hill N44D923S	Conv	42 A	9.9 A-G	116 H	42 C-E	1.0
MO S20-14129GT	RR	39 A	10.4 A-F	125 A-E	42 C-E	1.0
Dyna-Gro S45EN25	E3	38 A	9.8 C-G	122 C-F	44 CD	1.0
MO S20-2227	Conv	38 A	9.6 D-G	117 GH	39 E-H	1.0
Xitavo XO 4255E	E3	36 A	9.3 FG	121 E-G	37 HI	1.0
Average		45	10.1	124	41	1.0
Standard Error		6	0.4	2	1	0.1
L.S.D._{.05}		N.S.	1.2	4	4	-
C.V.		13	7	2	6	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.
- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.
- C.V. is only reported for variables evaluated on a ratio scale.
- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.
- T Indicate data that were log transformed to meet assumptions of normality, raw means are reported and mean separation letters are given. L.S.D values are not reported as these would be relative to transformed mean values.
‡ For a full description of abbreviated biotech traits, see table 23.
* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.
§ All yields are adjusted to 13% moisture.
†† Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-31. Mean[†] yield and agronomic traits of 40 Maturity Group IV Late (4.6 - 4.9) soybean varieties evaluated in small plot replicated trials at the West Tennessee AgResearch and Education Center in Jackson, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Dyna-Gro S49XF43S	XFS	62 A	11.2 D-K	135 A	40 K-M	1.0
Asgrow AG49XF4	XFS	59 AB	10.9 H-L	130 C-G	44 F-I	1.0
Pioneer P47Z15BE	E3S-Bolt	58 A-C	10.2 L	128 F-J	45 E-I	1.0
Pioneer P48Z70BLX	E3S-Bolt	57 A-D	11.1 F-L	130 C-G	50 A	1.0
Pioneer P49Z02E	E3	57 A-E	12.1 A-D	132 B-E	42 I-L	1.0
Progeny 4623XF	XF	56 A-F	11.0 G-L	132 B-E	44 F-I	1.0
USG 7495XFS	XFS	56 A-F	10.7 KL	132 B-E	48 A-E	1.0
Revere 49-F36	XF	55 A-G	12.5 A	133 A-C	46 C-H	1.0
CNI Integra XF4875S	XF	54 A-G	11.7 A-H	133 A-C	48 A-E	1.0
Innvictis A4924XF	XF	54 A-G	11.0 G-L	132 A-D	38 M	1.0
Xitavo XO 4772E	E3	54 A-G	12.3 AB	132 A-D	42 H-K	1.0
Progeny 4806XFS	XFS	54 A-G	11.2 C-K	134 AB	43 G-J	1.0
Great Heart GT4756XF	RR/LL	53 B-H	11.6 A-J	127 G-K	45 D-I	1.0
Progeny 4798XF	XF	53 B-H	10.7 KL	134 AB	44 F-I	1.0
USG 7494ETS	E3S	53 B-H	11.7 A-I	130 C-G	46 C-H	1.0
Progeny 4999E3S	E3S	53 B-H	11.3 C-K	129 D-H	46 B-G	1.0
Progeny 4604XFS	XFS	53 B-H	11.6 A-K	131 B-F	49 AB	1.0
Progeny 4947XFS	XFS	52 B-H	11.9 A-G	136 A	46 B-G	1.0
CNI Integra XF4634S	XF	52 B-H	11.4 B-K	126 H-K	49 AB	1.0
USG 7461XFS	XFS	52 B-H	11.3 C-K	128 F-J	49 A-C	1.0
Innvictis A4862XF	XF	52 B-H	10.9 H-L	129 D-H	46 B-G	1.0
USG 7485ETS	E3S	51 B-H	11.4 B-K	129 D-I	47 B-G	1.0
Dyna-Gro S48XF35	XF	51 B-H	11.2 D-K	132 A-D	40 K-M	1.0
Dyna-Gro S47XF23S	XFS	51 B-H	10.9 H-L	128 F-J	44 F-I	1.0
Pioneer P46A90LX	RR2X/LL	50 C-I	12.1 A-E	124 K	47 A-F	1.0
Donmario DM48F53	XF	50 C-I	11.0 G-L	131 B-F	34 N	1.0
Progeny 4775E3S	E3S	50 C-I	12.3 AB	127 G-K	48 A-E	1.0
USG 7474XFS	XFS	49 D-I	11.1 E-L	130 C-G	42 I-L	1.0
Pioneer P46Z53E	E3	49 D-I	11.7 A-I	125 JK	39 K-M	1.0
Revere 47-F77	XF	49 E-I	10.7 J-L	127 G-K	47 A-F	1.0
CNI Fortus 4655ES	E3	49 E-I	11.3 C-K	126 H-K	42 I-L	1.0
Progeny 4848XF	XF	49 F-I	10.9 H-L	126 H-K	43 G-J	1.0
Xitavo XO 4894E	E3	49 F-I	12.0 A-F	128 E-I	46 B-G	1.0
MO S20-7117	Conv	48 F-I	12.2 A-C	128 E-I	39 LM	1.0
USG 7463XF	XF	48 F-I	11.7 A-I	126 I-K	45 E-I	1.0
Donmario DM46F54S	XF	48 F-I	11.7 A-J	124 K	45 D-I	1.0
Innvictis A4814XF	XF	48 G-I	11.6 A-J	133 A-C	40 J-M	1.0
Innvictis A4664XF	XF	46 HI	11.3 C-K	125 JK	42 H-K	1.0
Progeny 4691XFS	XFS	45 HI	11.3 C-K	127 G-K	48 A-D	1.0
Revere 4826XFS	XFS	43 I	10.8 I-L	126 H-K	44 F-I	1.0
Average		52	11.4	129	44	1.0
Standard Error		5	0.4	1	1	-
L.S.D. _{.05}		8	1.0	3	3	-
C.V.		9	5	2	5	-

[†] Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highlighted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

[‡] For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

[§] All yields are adjusted to 13% moisture.

^{††} Lodging was evaluated on a scale of 1 (no lodging) to 5 (complete lodging).

Table A-32. Mean[†] yield and agronomic traits of eight Maturity Group V (5.0 - 5.9) soybean varieties evaluated in small plot replicated trials at the West Tennessee AgResearch and Education Center in Jackson, Tennessee during 2024.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)	Moisture at Harvest (%)	Maturity (DAP)	Plant Height (in.)	Lodging ^{††} (1-5)
Pioneer P53Z60LX	RR2X/LL	57 A	12.8 B-D	139 A	41 C	1.0
Pioneer P50Z95E	E3	55 A	12.0 D	135 AB	39 C	1.0
USG 7543XF	XF	52 A	16.4 A	132 B	43 BC	1.0
MO S20-13179LL55	LL	47 A	12.3 CD	137 AB	44 BC	1.0
USG 7534GT	GT	46 A	14.0 BC	134 AB	46 AB	1.0
MO S20-1492	Conv	45 A	12.2 D	135 AB	40 C	1.0
Progeny 5056XFS	XFS	45 A	14.4 B	135 AB	50 A	1.0
MO S20-4428	Conv	45 A	12.5 CD	137 AB	41 BC	1.0
Average		49	13.3	135	43	1.0
Standard Error		5	0.6	2	3	-
L.S.D. _{.05}		N.S.	1.7	N.S.	5	-
C.V.		14	7	3	7	-

† Varieties that have any MS letter in common are not significantly different at the 5% level of probability.

- Values highlighted in orange are above average, values highted in dark orange are in the upper 25%. MS letters highlighted in dark orange are in the "A group", indicating no statistical difference from the top-performing variety, for a given trait.

- C.V. is only reported for variables evaluated on a ratio scale.

- L.S.D. values are given for ANOVA that were significant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.S.

‡ For a full description of abbreviated biotech traits, see table 23.

* Asterisks after a name indicate the number of preceding consecutive years in the top-performing "A" group.

§ All yields are adjusted to 13% moisture.

†† Lodging was evaluated on a a scale of 1 (no lodging) to 5 (complete lodging).

Table A-33. Mean[†] yield and agronomic traits of eight Maturity Group III (3.0 - 3.9) soybean varieties evaluated in small plot replicated trials at AgriCenter International in Memphis, Tennessee during 2024.

Field too wet to harvested prior to report date. Will be added later depending on data quality.

Table A-34. Mean[†] yield and agronomic traits of 24 Maturity Group IV Early (4.0 - 4.5) soybean varieties evaluated in small plot replicated trials at AgriCenter International in Memphis, Tennessee during 2024.

Field too wet to harvested prior to report date. Will be added later depending on data quality.

Table A-35. Mean[†] yield and agronomic traits of 40 Maturity Group IV Late (4.6 - 4.9) soybean varieties evaluated in small plot replicated trials at AgriCenter International in Memphis, Tennessee during 2024.

Field too wet to harvested prior to report date. Will be added later depending on data quality.

Table A-36. Mean[†] yield and agronomic traits of eight Maturity Group V (5.0 - 5.9) soybean varieties evaluated in small plot replicated trials at AgriCenter International in Memphis, Tennessee during 2024.

Field too wet to harvested prior to report date. Will be added later depending on data quality.



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