Table A-17-a. Mean[†] yield and agronomic traits of 30 Maturity Group IV Late (4.5 - 4.9) soybean varieties evaluated in small plot replicated trials without irrigation at the Northeast Tennessee AgResearch and Education Center in Greeneville, Tennessee during 2023.

Variety	Herbicide Pkg[†]	Avg. Yield[§] (bu/ac)			Moisture at Harvest (%)			Plant Height (in.)			Lodging[‖] (1-5)			Maturity (DAP)		
		1 yr	2 yr	3 yr	1 yr	2 yr	3 yr	1 yr	2 yr	3 yr	1 yr	2 yr	3 yr	1 yr	2 yr	3 yr
Asgrow AG49XF3	XF	119 A			8.1 B-E			49 A			2.3 E-G			152 A		
Progeny 4691XFS*	XFS	118 AB	89 A		8.1 B-E	10.8 AB		48 AB	46 AB		2.3 E-G	1.7 B-D		152 A	143 A	
USG 7461XFS**	XFS	116 A-C	87 A	88 A	7.8 F-I	10.5 CD	10.8 C	48 A-D	45 A-D	44 A	2.5 EF	2.0 A	2.0 A	151 A	143 A	-
Don Mario DM48F53	XF	111 A-D			7.9 E-I			40 FG			2.3 E-G			153 A		
Revere 4795XS****	R2XS	111 A-E	82 A	82 A	8.0 C-G	10.8 AB	11.0 AB	48 AB	44 A-F	42 AB	2.2 F-H	1.6 CD	1.6 BC	155 A	145 A	-
Progeny 4775E3S	E3S	110 A-F	87 A		8.1 B-F	10.8 AB		48 A-C	46 A		2.5 EF	1.8 A-C		154 A	144 A	
Revere 4826XF*	XF	107 A-G	84 A		8.2 A-D	10.8 AB		45 B-E	43 C-F		2.0 GH	1.6 CD		155 A	144 A	
Revere 4727XF	XF	105 A-H	80 A		7.5 J	10.3 D		44 C-F	42 EF		1.8 H	1.4 D		155 A	144 A	
Progeny 4604XFS**	XFS	105 A-H	85 A	88 A	7.9 E-I	10.5 B-D	10.8 BC	48 A-D	45 A-E	44 A	2.5 EF	1.9 AB	2.0 A	152 A	143 A	-
Dyna-Gro S47XF23S	XFS	103 B-H	80 A		8.3 A-C	10.7 A-C		45 B-E	41 F		2.2 F-H	1.6 CD		157 A	145 A	
USG 7463XF	XF	103 B-H	82 A		8.0 B-G	10.6 A-D		46 A-E	44 A-F		2.2 F-H	1.6 CD		148 A	141 A	
USG 7496XTS**	R2XS	101 C-I	81 A	85 A	8.2 B-E	10.9 A	11.1 A	48 A-D	45 A-C	44 A	2.0 GH	1.7 B-D	1.9 AB	153 A	143 A	
Revere 4934XF	XF	101 C-I			8.2 A-D			40 FG			2.7 DE			157 A		
Progeny 4806XFS	XFS	101 D-I	79 A	79 A	7.7 H-J	10.4 CD	10.7 C	45 A-E	43 B-F	40 B	2.0 GH	1.5 D	1.4 C	151 A	143 A	-
Dyna-Gro S48EN73	E3	100 D-J	76 A		8.3 A-C	10.9 A		44 C-F	41 F		2.0 GH	1.5 D		151 A	142 A	
USG 7494ETS	E3S	100 D-J			8.2 A-D			47 A-D			2.3 E-G			153 A		
Progeny 4798XF	XF	100 D-J	80 A		8.0 D-H	10.5 B-D		43 E-G	41 F		2.7 DE	1.8 A-C		154 A	144 A	
Asgrow AG47XF2	XF	97 D-J	78 A		8.2 A-D	10.6 A-D		46 A-E	43 B-F		2.7 DE	1.8 A-C		154 A	144 A	
USG 7474XFS	XFS	96 E-J			8.2 A-D			44 D-G			2.0 GH			154 A		
Asgrow AG48XF3	XF	95 F-J			8.0 B-G			46 A-E			1.8 H			158 A		
Innvictis A4862XF	XF	95 F-J	76 A		8.1 B-F	10.7 A-C		45 A-E	42 D-F		2.7 DE	1.8 A-C		154 A	144 A	
Xitavo 4653E	E3	92 G-J			7.8 F-I			45 B-E			2.0 GH			151 A		
Innvictis B4903E	E3	92 G-J			7.8 G-J			43 E-G			2.3 E-G			152 A		
Revere 4731XF	XF	91 H-J			8.2 A-D			44 C-F			3.0 CD			154 A		
Dyna-Gro S49XF43S	XFS	91 H-J	78 A		8.0 C-G	10.5 B-D		40 G	38 G		2.0 GH	1.5 D		154 A	144 A	
Xitavo 4894E	E3	87 IJ			8.3 AB			44 B-E			2.2 F-H			150 A		
Innvictis B4603E	E3	85 J			7.7 IJ			45 A-E			3.3 C			155 A		
MO S18-17644	Conv	61 K			8.5 A			49 A			4.3 A			155 A		
Perdue Agribusiness P48MO21	Conv	56 K			8.0 C-G			46 A-E			3.8 B			159 A		
TN Exp TN18-4110b	Conv.	54 K			7.7 IJ			47 A-D			4.2 AB			159 A		
Average		97	81	84	8.0	10.6	10.9	45	43	43	2.5	1.7	1.8	154	143	-
Standard Error		5	23	14	0.1	2.6	1.6	1	3	2	0.2	0.6	0.3	3	10	-
L.S.D..05		16	N.S.	N.S.	0.3	0.3	0.2	4	3	3	0.5	0.3	0.3	N.S.	N.S.	-
C.V.		10	12	12	2	3	2	5	6	6	-	-	-	3	2	-

† 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.
C.V. is only reported for variables evaluated on a ratio scale.
L.S.D. values are given for ANOVA that were signficant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.E.
‡ For a full description of abbreviated biotech traits, see table 29.
* 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).
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.

Table A-17-b. Mean† yield and agronomic traits of 30 Maturity Group IV Late (4.5 - 4.9) soybean varieties evaluated in small plot replicated trials without irrigation at the Northeast Tennessee AgResearch and Education Center in Greeneville, Tennessee during 2023.

Variety	Herbicide Pkg†	Avg. Yield§ (bu/ac)	SDS DI†† (%)	SDS DS†† (1-9)	SDS DX†† (DI x DS/9)	Frogeye‡‡ (%)	Leaf Holding‖ (1-5)
		1 yr	1 yr	1 yr	1 yr	1 yr	1 yr
Asgrow AG49XF3	XF	119 A	0	1.0	0	1.0	1.5
Progeny 4691XFS*	XFS	118 AB	0	1.0	0	1.3	1.5
USG 7461XFS**	XFS	116 A-C	0	1.0	0	1.0	1.5
Don Mario DM48F53	XF	111 A-D	0	1.0	0	1.0	1.5
Revere 4795XS****	R2XS	111 A-E	0	1.0	0	1.7	1.5
Progeny 4775E3S	E3S	110 A-F	3	1.3	1	1.0	1.7
Revere 4826XF*	XF	107 A-G	0	1.0	0	1.0	1.5
Revere 4727XF	XF	105 A-H	0	1.0	0	1.7	1.8
Progeny 4604XFS**	XFS	105 A-H	0	1.0	0	1.0	1.5
Dyna-Gro S47XF23S	XFS	103 B-H	0	1.0	0	1.7	1.5
USG 7463XF	XF	103 B-H	0	1.0	0	1.0	1.5
USG 7496XTS**	R2XS	101 C-I	0	1.0	0	1.0	1.5
Revere 4934XF	XF	101 C-I	0	1.0	0	1.0	1.5
Progeny 4806XFS	XFS	101 D-I	0	1.0	0	1.0	1.5
Dyna-Gro S48EN73	E3	100 D-J	0	1.0	0	1.0	1.5
USG 7494ETS	E3S	100 D-J	0	1.0	0	1.0	1.5
Progeny 4798XF	XF	100 D-J	2	1.3	0	1.0	1.5
Asgrow AG47XF2	XF	97 D-J	0	1.0	0	1.7	1.7
USG 7474XFS	XFS	96 E-J	0	1.0	0	1.0	1.5
Asgrow AG48XF3	XF	95 F-J	3	1.3	1	1.7	1.5
Innvictis A4862XF	XF	95 F-J	0	1.0	0	1.0	1.5
Xitavo 4653E	E3	92 G-J	0	1.0	0	1.0	1.7
Innvictis B4903E	E3	92 G-J	2	1.0	0	1.0	1.5
Revere 4731XF	XF	91 H-J	0	1.0	0	1.0	1.7
Dyna-Gro S49XF43S	XFS	91 H-J	0	1.0	0	1.0	1.5
Xitavo 4894E	E3	87 IJ	0	1.0	0	1.0	1.8
Innvictis B4603E	E3	85 J	0	1.0	0	1.0	1.7
MO S18-17644	Conv	61 K	0	1.0	0	1.0	1.5
Perdue Agribusiness P48MO21	Conv	56 K	0	1.0	0	2.0	1.8
TN Exp TN18-4110b	Conv.	54 K	2	1.0	0	1.0	2.0
Average		97	0	1.0	0	1.2	1.6
Standard Error		5	0	0.0	0	0.0	0.0
L.S.D..05		16	N.E.	N.E.	N.E.	N.E.	N.E.
C.V.		10	-	-	-	-	-

† 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.
C.V. is only reported for variables evaluated on a ratio scale.
L.S.D. values are given for ANOVA that were signficant at P<0.05. Variables in which minimal variation was observed were not subjected to ANOVA and are reported as N.E.
* 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.
†† SDS was evaluated as disease incidence (percentage), disease severity (1 to 9, with 1 indicating no disease), and disease index (DI x DS/9). Evaluated in mid-September.
‡‡ Frogeye was evaluated using a 1 to 9 scale, with 1 indicating no disease. Evaluated in mid-September.
‖ Leaf holding was evaluated visually at harvest using a 1 to 5 scale, with 1 indicating no leaves at maturity..
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.