

Table A-23-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 AgResearch and Education Center at Milan in Milan, 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	74 A			11 B-F			49 AB			1.0			145 A-D		
Innvictis A4862XF	XF	70 AB	64 A-C		12 A-C	12 C-F		44 G-L	39 D		1.0	1.0		141 B-H	141 B-D	
Dyna-Gro S47XF23S	XFS	69 A-C	62 A-D		11 E-G	12 E-G		45 F-K	40 D		1.0	1.0		136 G-I	136 E-G	
Revere 4795XS****	R2XS	69 A-C	66 AB	64 A	11 C-G	12 D-G	12 C	45 E-J	40 D	40 B	1.0	1.0	1.0	146 A-C	142 BC	141 B
Asgrow AG48XF3	XF	69 A-C			11 A-F			47 B-G			1.0			142 B-G		
Progeny 4604XFS**	XFS	68 A-D	63 A-D	63 A	11 B-G	12 C-F	12 BC	48 A-D	44 AB	44 A	1.0	1.0	1.0	138 E-I	139 D-F	138 B
Dyna-Gro S48EN73	E3	68 A-E	60 B-D		11 B-F	13 B-E		39 OP	36 G		1.0	1.0		135 HI	139 C-F	
USG 7461XFS**	XFS	68 A-D	67 A	68 A	11 A-D	13 A-C	12 AB	48 A-E	43 AB	44 A	1.0	1.0	1.0	140 D-I	139 C-E	139 B
Revere 4826XF*	XF	68 A-E	67 A		11 B-F	12 C-G		43 I-M	39 DE		1.0	1.0		136 G-I	137 E-G	
Progeny 4806XFS	XFS	66 A-E	59 CD	62 A	11 A-F	13 A-C	13 A	44 G-K	41 CD	41 B	1.0	1.0	1.0	147 AB	145 AB	144 A
Progeny 4691XFS*	XFS	66 A-E	61 A-D		12 A	13 A		50 A	45 A		1.0	1.0		135 I	136 FG	
Dyna-Gro S49XF43S	XFS	66 A-E	61 A-D		12 A-C	12 C-F		40 M-P	37 FG		1.0	1.0		141 C-H	142 BC	
Xitavo 4894E	E3	66 A-E			11 A-D			46 C-H			1.0			138 E-I		
USG 7494ETS	E3S	65 B-E			12 A-D			43 I-M			1.0			144 B-E		
Revere 4727XF	XF	64 B-E	58 CD		11 FG	12 FG		41 L-O	39 D-F		1.0	1.0		135 I	136 E-G	
Don Mario DM48F53	XF	64 B-E			11 A-D			38 P			1.7			142 B-G		
Progeny 4798XF	XF	64 B-E	59 CD		11 C-G	12 G		44 H-L	40 CD		1.0	1.0		147 AB	144 AB	
USG 7474XFS	XFS	64 B-E			11 B-F			44 G-K			1.0			142 B-F		
Revere 4731XF	XF	63 B-F			12 AB			41 M-O			2.7			137 F-I		
Revere 4934XF	XF	63 B-F			11 A-D			42 J-M			1.0			146 A-C		
USG 7463XF	XF	63 B-F	64 A-C		11 A-D	13 B-E		46 D-I	42 BC		1.0	1.0		136 G-I	136 E-G	
Asgrow AG47XF2	XF	61 B-H	57 D		12 AB	13 AB		42 J-M	37 E-G		1.0	1.0		142 B-H	138 E-G	
USG 7496XTS**	R2XS	61 C-G	58 CD	63 A	11 A-D	13 B-D	13 A	49 A-C	44 A	44 A	1.0	1.0		147 AB	146 A	145 A
Progeny 4775E3S	E3S	61 D-H	59 CD		12 A-D	13 BC		47 B-F	44 AB		1.0	1.0		134 I	134 G	
Innvictis B4903E	E3	60 E-H			11 C-G			42 K-N			1.3			136 G-I		
Xitavo 4653E	E3	60 E-H			11 A-E			43 I-M			1.0			140 D-I		
Innvictis B4603E	E3	56 F-H			11 D-G			43 J-M			1.3			134 I		
MO S18-17644	Conv	54 GH			12 AB			42 J-M			3.0			145 A-D		
Perdue Agribusiness P48MO21 Conv	Conv	53 HI			11 C-G			39 N-P			2.3			150 A		
TN Exp TN18-4110b	Conv.	46 I			10 G			29 Q			1.7		1.0	146 A-C		
Average		64	62	64	11.2	12.5	12.4	43	41	43	1.2	1.0	1.0	141	139	141
Standard Error		3	5	3	0.3	1.3	0.9	1	4	3	0.2	0.0	0.0	2	1	1
L.S.D. _{.05}		8	7	N.S.	0.8	0.5	0.4	3	2	2	0.5	N.E.	N.E.	6	3	3
C.V.		8	9	9	4	3	4	4	5	5	26	-	-	2	2	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 significant 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 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-23-b. Mean[†] yield and quality of 30 Maturity Group IV Late (4.5 - 4.9) soybean varieties evaluated in small plot replicated trials without irrigation at the AgResearch and Education Center at Milan in Milan, Tennessee during 2023.

Variety	Herbicide Pkg [†]	Avg. Yield [§]	SDS DI ^{††, †}	SDS DS ^{††, †}	SDS DX ^{††, †}	Frogeye ^{‡‡}
		(bu/ac)	(%)	(1-9)	(DI x DS/9)	(%)
		1 yr	1 yr	1 yr	1 yr	1 yr
Asgrow AG49XF3	XF	74 A	0 A	1.0 D	0 A	1.7 A
Innvictis A4862XF	XF	70 AB	2 A	1.0 D	0 A	1.0 A
Dyna-Gro S47XF23S	XFS	69 A-C	2 A	1.7 B-D	0 A	1.3 A
Revere 4795XS****	R2XS	69 A-C	2 A	1.0 D	0 A	2.3 A
Asgrow AG48XF3	XF	69 A-C	2 A	1.3 CD	0 A	1.7 A
Progeny 4604XFS**	XFS	68 A-D	3 A	1.3 CD	1 A	1.3 A
Dyna-Gro S48EN73	E3	68 A-E	3 A	1.0 D	0 A	1.3 A
USG 7461XFS**	XFS	68 A-D	2 A	1.0 D	0 A	2.0 A
Revere 4826XF*	XF	68 A-E	2 A	1.0 D	0 A	3.3 A
Progeny 4806XFS	XFS	66 A-E	5 A	1.0 D	1 A	3.0 A
Progeny 4691XFS*	XFS	66 A-E	5 A	1.3 CD	1 A	2.0 A
Dyna-Gro S49XF43S	XFS	66 A-E	28 A	2.0 A-C	6 A	1.3 A
Xitavo 4894E	E3	66 A-E	3 A	1.0 D	0 A	1.7 A
USG 7494ETS	E3S	65 B-E	0 A	1.0 D	0 A	1.7 A
Revere 4727XF	XF	64 B-E	5 A	1.3 CD	1 A	1.3 A
Don Mario DM48F53	XF	64 B-E	3 A	1.3 CD	1 A	1.3 A
Progeny 4798XF	XF	64 B-E	2 A	1.0 D	0 A	2.0 A
USG 7474XFS	XFS	64 B-E	3 A	1.3 CD	1 A	1.3 A
Revere 4731XF	XF	63 B-F	38 A	2.7 AB	11 A	1.7 A
Revere 4934XF	XF	63 B-F	0 A	1.0 D	0 A	1.0 A
USG 7463XF	XF	63 B-F	2 A	1.0 D	0 A	1.7 A
Asgrow AG47XF2	XF	61 B-H	0 A	1.0 D	0 A	2.3 A
USG 7496XTS**	R2XS	61 C-G	3 A	2.0 A-C	1 A	1.7 A
Progeny 4775E3S	E3S	61 D-H	3 A	1.0 D	0 A	2.0 A
Innvictis B4903E	E3	60 E-H	7 A	1.3 CD	1 A	2.0 A
Xitavo 4653E	E3	60 E-H	0 A	1.0 D	0 A	1.7 A
Innvictis B4603E	E3	56 F-H	8 A	1.7 B-D	1 A	1.7 A
MO S18-17644	Conv	54 GH	0 A	1.0 D	0 A	1.3 A
Perdue Agribusiness P48MO21 Conv	Conv	53 HI	7 A	1.3 CD	1 A	1.3 A
TN Exp TN18-4110b	Conv.	46 I	25 A	2.7 A	8 A	1.3 A
Average		64	6	1.3	1	1.7
Standard Error		3	4	0.3	1	0.6
L.S.D. _{.05}		8	N.S.	Sig.	N.S.	N.S.
C.V.		8	-	-	-	-

[†] 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 significant 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.

† 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.