

Table A-2-a. Mean[†] yield and agronomic traits of 9 Maturity Group III (3.0 - 3.9) soybean varieties evaluated in small plot replicated trials with irrigation at the East Tennessee AgResearch and Education Center in Knoxville, 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 AG39XF3	XF	88 A			13.4 A			36 BC			2.5 A			137 AB		
USG 7394XFS	XFS	85 AB			13.5 A			39 A			2.3 AB			136 A-C		
Xitavo 3803E	E3	83 AB			13.7 A			36 A-C			2.5 A			134 CD		
Dyna-Gro S38XF22S*	XF	82 AB	80 A		13.3 A	14.4 A		38 AB	42 A		1.8 B-D	1.8 A		136 A-C	133 A	
Revere 3908XFS*	XFS	77 A-C	80 A	79 A	13.6 A	14.4 A	14.9 A	37 A-C	43 A	39 A	2.0 A-C	1.8 A	1.7 A	135 B-D	134 A	133 B
Asgrow AG38XF1	XF	75 BC	74 A	72 B	13.2 A	14.3 A	14.8 A	35 BC	40 A	37 B	1.5 CD	1.3 B	1.3 B	135 BC	134 A	135 A
Innvictis A3992XF	XF	65 CD			13.2 A			34 C			1.8 B-D			138 A		
Perdue Agribusiness P30ILO22	Conv	56 D			13.4 A			28 D			1.3 D			133 D		
Perdue Agribusiness P29ILO22	Conv	53 D			13.8 A			28 D			1.5 CD			129 E		
Average		74	78	76	13.5	14.4	14.9	34	41	38	1.9	1.7	1.5	135	134	134
Standard Error		4	2	2	0.1	1.0	0.8	1	5	4	0.2	0.2	0.2	1	2	1
L.S.D. _{.05}		12	N.S.	5	N.S.	N.S.	N.S.	3	N.S.	2	0.6	0.4	0.3	2	N.S.	1
C.V.		10	6	6	2	4	2	5	5	5	19	19	16	1	1	1

[†] 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-2-b. Mean[†] yield and agronomic traits of 9 Maturity Group III (3.0 - 3.9) soybean varieties evaluated in small plot replicated trials with irrigation at the East Tennessee AgResearch and Education Center in Knoxville, Tennessee during 2023.

Variety	Herbicide Pkg [†]	Avg. Yield [§] (bu/ac)			Protein [¶] (%)			Oil [¶] (%)		
		1 yr	2 yr	3 yr	1 yr	2 yr	3 yr	1 yr	2 yr	3 yr
Asgrow AG39XF3	XF	88 A			34.8 AB			22.4 EF		
USG 7394XFS	XFS	85 AB			34.4 BC			23.6 C		
Xitavo 3803E	E3	83 AB			31.6 F			25.9 A		
Dyna-Gro S38XF22S*	XF	82 AB	80 A		33.1 E	33.4 C		24.8 B	24.9 A	
Revere 3908XFS*	XFS	77 A-C	80 A	79 A	35.0 A	35.3 A	35.8 A	23.1 D	22.9 C	22.6 B
Asgrow AG38XF1	XF	75 BC	74 A	72 B	33.9 CD	34.2 B	34.8 B	23.4 C	23.3 B	23.1 A
Innvictis A3992XF	XF	65 CD			33.3 E			23.4 CD		
Perdue Agribusiness P30ILO22	Conv	56 D			33.7 D			22.5 E		
Perdue Agribusiness P29ILO22	Conv	53 D			33.2 E			22.1 F		
Average		74	78	76	33.7	34.3	35.3	23.5	23.7	22.9
Standard Error		4	2	2	0.2	0.3	0.6	0.1	0.1	0.3
L.S.D. _{.05}		12	N.S.	5	0.5	0.5	0.3	0.3	0.3	0.1
C.V.		10	6	6	1	1	1	1	1	0

[†] 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.

[¶] Protein and oil were measured post-harvest using NIRS and are reported on a dry weight basis.

Table A-2-c. Mean[†] yield and agronomic traits of 9 Maturity Group III (3.0 - 3.9) soybean varieties evaluated in small plot replicated trials with irrigation at the East Tennessee AgResearch and Education Center in Knoxville, Tennessee during 2023.

Variety	Herbicide Pkg [†]	Avg. Yield [§]	SDS DI ^{††}	SDS DS ^{††}	SDS DX ^{††}	Frogeye ^{‡‡}	Seed Quality ^{§§}	Purple Stain ^{¶¶}	Leaf Holding
		(bu/ac)	(%)	(1-9)	(DI x DS/9)	(%)	(1-5)	(1-5)	(1-5)
		1 yr	1 yr	1 yr	1 yr	1 yr	1 yr	1 yr	1 yr
Asgrow AG39XF3	XF	88 A	20 A-C	3.3 B	8 BC	3.0 A	1.3 B	1.3 A	1.3 A-C
USG 7394XFS	XFS	85 AB	20 A-C	3.7 B	8 BC	2.7 A	1.7 AB	1.5 A	1.7 A
Xitavo 3803E	E3	83 AB	18 BC	1.3 CD	2 C	1.7 A	2.2 A	1.5 A	1.3 A-C
Dyna-Gro S38XF22S*	XF	82 AB	0 C	1.0 D	0 C	2.7 A	1.3 B	1.2 A	1.2 BC
Revere 3908XFS*	XFS	77 A-C	45 A	5.3 A	26 A	1.7 A	1.5 B	1.5 A	1.5 AB
Asgrow AG38XF1	XF	75 BC	43 AB	3.3 B	16 B	1.7 A	1.2 B	1.3 A	1.5 AB
Innervictis A3992XF	XF	65 CD	5 C	2.7 BC	1 C	3.3 A	1.5 B	1.2 A	1.5 AB
Perdue Agribusiness P30ILO22	Conv	56 D	15 C	2.7 BC	4 C	2.0 A	1.2 B	1.2 A	1.0 C
Perdue Agribusiness P29ILO22	Conv	53 D	25 A-C	2.7 BC	8 BC	3.0 A	1.5 B	1.5 A	1.0 C
Average		74	21	2.9	8	2.4	1.5	1.4	1.3
Standard Error		4	9	0.5	3	0.7	0.2	0.1	0.1
L.S.D. _{.05}		12	26	1.4	10	N.S.	0.6	N.S.	0.4
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 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.

[†] 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.

^{††} 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.

^{§§} Seed quality was evaluated visually post-harvest using a 1 to 5 scale, with 1 indicating no shriveled or damaged seed.

^{¶¶} Purple stain was evaluated visually post-harvest using a 1 to 5 scale, with 1 indicating no purple stain.