Table A-11-a. Mean† yield and agronomic traits of 30 Maturity Group IV Early (4.0 - 4.4) soybean varieties evaluated in small plot replicated trials with irrigation at the Highland Rim AgResearch and Education Center in Springfield, 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
NK 42-A6E3S	E3	93 A			13 BC			39 B-D			1.2 BC			141 A-C		
Dyna-Gro S41EN72	E3	81 B	65 A	65 A	13 C	12 A	13 A	40 A-D	34 BC	33 A	1.0 C	1.0 A	1.1 A	139 D-F	138 B	137 B
Dyna-Gro S45XF02	XF	76 BC	62 A		13 BC	12 A		38 C-E	33 C		1.0 C	1.0 A		140 B-D	140 A	
Xitavo 4522E	E3	74 B-D			13 C			35 E-G			1.0 C			141 A-C		
NK 44-Q5E3S	E3	72 B-D	58 AB		13 C	12 A		35 E-G	30 D		1.2 BC	1.1 A		141 A-C	139 A	
Asgrow AG45XF3	XF	72 B-D			13 C			43 A			1.0 C			141 A-C		
Revere 4526XFS	XFS	71 B-D	61 A		14 B	12 A		42 AB	38 A		1.0 C	1.0 A		141 A-C	140 A	
Revere 4237XFS	XFS	70 C-E			13 BC			37 D-F			1.0 C			138 FG		
Perdue Agribusiness P41IL022	Conv	69 C-E			13 BC			37 D-F			1.3 A-C			139 EF		
Xitavo 4364E	E3	69 C-E			13 BC			37 D-F			1.2 BC			137 G		
Asgrow AG43XF2	XF	68 C-E	52 B		13 BC	12 A		41 A-C	36 A-C		1.0 C	1.0 A		141 A-C	140 A	
Innvictis B5013E	E3	67 C-E			13 BC			41 A-C			1.2 BC			141 A-C		
Innvictis A4503XF	XF	66 C-E			13 C			38 C-E			1.0 C			138 FG		
Revere 4299XS	R2XS	66 C-E	59 AB	61 A	13 C	12 A	13 A	40 A-D	36 AB	35 A	1.0 C	1.0 A	1.0 A	140 C-E	140 A	139 A
Don Mario DM45F23	XF	65 DE			13 BC			38 C-E			1.3 A-C			141 A-C		
Xitavo 4084E	E3	64 DE			13 BC			38 C-E			1.5 A-C			137 G		
Innvictis A4411XF	XF	60 EF			13 BC			38 C-F			1.5 A-C			138 F		
Perdue Agribusiness P41MO21	Conv	52 FG			13 C			33 G			1.8 A			137 G		
MO S19-10701	Conv	49 G			13 C			43 A			1.7 AB			142 A		
Perdue Agribusiness P45XP421	Conv	37 H			14 A			34 FG			1.5 A-C			142 AB		
Average		67	60	63	13.1	12.3	13.0	38	35	34	1.2	1.0	1.0	140	139	138
Standard Error		4	13	7	0.2	0.8	0.9	3	5	3	0.2	0.0	0.0	1	1	1
L.S.D.$_{.05}$		11	8	N.S.	0.5	N.S.	N.S.	4	2	N.S.	0.5	N.S.	N.S.	2	2	1
C.V.		9	11	11	2	2	4	6	6	7	-	-	-	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 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-11-b. Mean† yield and agronomic traits of 30 Maturity Group IV Early (4.0 - 4.4) soybean varieties evaluated in small plot replicated trials with irrigation at the Highland Rim AgResearch and Education Center in Springfield, Tennessee during 2023.

Variety	Herbicide Pkg†	Avg. Yield§ (bu/ac)	SDS DI†† (%)	SDS DS†† (1-9)	SDS DX†† (DI x DS/9)	Frogeye‡‡ (1-9)	Leaf Holding‖ (1-5)
		1 yr	1 yr	1 yr	1 yr	1 yr	1 yr
NK 42-A6E3S	E3	93 A	3 D	1.0 E	0 D	1.0 F	1.0
Dyna-Gro S41EN72	E3	81 B	17 CD	1.7 DE	4 CD	2.3 C-F	1.0
Dyna-Gro S45XF02	XF	76 BC	3 D	1.0 E	0 D	1.3 EF	1.0
Xitavo 4522E	E3	74 B-D	8 D	1.0 E	1 CD	3.7 B-D	1.0
NK 44-Q5E3S	E3	72 B-D	0 D	1.0 E	0 D	1.0 F	1.0
Asgrow AG45XF3	XF	72 B-D	5 D	2.3 C-E	2 CD	6.3 A	1.0
Revere 4526XFS	XFS	71 B-D	7 D	2.7 B-D	3 CD	6.7 A	1.0
Revere 4237XFS	XFS	70 C-E	18 B-D	2.3 C-E	8 B-D	6.0 A	1.0
Perdue Agribusiness P41IL022	Conv	69 C-E	3 D	1.0 E	0 D	2.7 C-F	1.0
Xitavo 4364E	E3	69 C-E	0 D	1.0 E	0 D	5.3 AB	1.0
Asgrow AG43XF2	XF	68 C-E	7 D	2.0 DE	2 CD	5.0 AB	1.0
Innvictis B5013E	E3	67 C-E	12 D	1.0 E	1 CD	4.0 BC	1.0
Innvictis A4503XF	XF	66 C-E	37 A-C	3.7 A-C	15 BC	2.7 C-F	1.0
Revere 4299XS	R2XS	66 C-E	5 D	1.7 DE	1 CD	3.0 C-E	1.0
Don Mario DM45F23	XF	65 DE	45 A	3.7 A-C	20 AB	1.3 EF	1.0
Xitavo 4084E	E3	64 DE	2 D	1.3 DE	0 D	1.0 F	1.0
Innvictis A4411XF	XF	60 EF	38 A-C	4.3 A	21 AB	4.0 BC	1.0
Perdue Agribusiness P41MO21	Conv	52 FG	12 D	1.3 DE	2 CD	2.7 C-F	1.0
MO S19-10701	Conv	49 G	42 AB	4.0 AB	21 AB	2.0 D-F	1.0
Perdue Agribusiness P45XP421	Conv	37 H	58 A	4.3 A	30 A	1.0 F	1.0
Average		**67**	**16**	**2.1**	**7**	**3.2**	**1.0**
Standard Error		**4**	**10**	**0.5**	**5**	**0.6**	**0.0**
L.S.D.$_{.05}$		**11**	**25**	**1.3**	**14**	**1.8**	**N.E.**
C.V.		**9**	**-**	**-**	**-**	**-**	**-**

† 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.