

Table 1. Herbicide trait technology (A) and number of soybean entries within each herbicide trait class and maturity group in the 2023 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				
	RR/RR2	Roundup Ready Roundup Ready 2 Roundup Ready 2 Yield			x			
Double	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.	2	4	3	2	11
Single	STS					0
	LL					0
	RR/RR2				1	1
Double	RR2+STS					0
	GTLL					0
	R2X					0
Triple	LLGT27					0
	R2X+STS		1	2		3
	XF	4	6	11	7	28
	E3	1	7	6	1	15
Quad	XF+STS	2	2	7	1	12
	E3+STS			1		1
	Total	9	20	30	12	71

Irrigated vs. Non-irrigated Yields. Duplicate tests were conducted at the Milan and Springfield AgResearch and Education Center locations with and without irrigation. The irrigated tests at Milan exhibited a yield advantage compared to the non-irrigated tests, in all but the MG-3 test: MG-3 (- 2 bu/ac), MG-4E (+ 1 bu/a), MG-4L (+ 7 bu/a), and MG-5 (+ 8 bu/a). Unlike Milan, Springfield showed a yield reduction in irrigated tests compared to non-irrigated: MG-3 (- 9 bu/ac), MG-4E (- 8 bu/a), MG-4L (- 15bu/a), and MG-5 (- 18 bu/a). This was likely due to Sudden Death Syndrome, which was more widespread in the irrigated tests at Springfield.

Growing Season: Soybean official variety trials were planted across all AgResearch and Education Center locations from early to mid-May. Favorable planting conditions were present early this year allowing planting to occur across the state. Statewide soybean planting progress was ahead of the five-year average, with 68 percent of soybeans planted by late May. By late June soybean planting was on par with the 5-year average at 92 percent. Spotty drought conditions were present throughout the state until mid-June when state-wide rains brought relief. By late September, 64 percent of the soybeans rated good to excellent. In mid-October, 46 percent of soybeans had been harvested, which was on par with the five-year average. By the end of October, 73 percent of soybeans had been harvested, compared to the five-year average of 62 percent. By Mid-November, 87 percent of soybeans had been harvested. According to the National Agricultural Statistical Service, Tennessee growers planted 1.57 million acres of soybeans in 2023, down 50,000 acres from the previous year. Soybean production for 2023 is projected to be 78.5 million bushels, an increase of 1% from 2022. The state soybean yield average is projected to be 50 bu/a, up 2.0 bushels from a year ago and slightly above the national average.