

Table 1. Herbicide trait technology (A) and number of soybean entries within each herbicide trait class and maturity group in the 2024 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				
Double	RR/RR2	Roundup Ready Roundup Ready 2 Roundup Ready 2 Yield			x			
	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.	3	5	1	2	11
Single	LL				1	1
	RR/RR2/GT		2		1	3
Double	RR/LL			2	1	3
Triple	RR/LL with Synchrony		1			1
	XF	1	5	15	1	22
	E3	4	6	5	1	16
Quad	XF+STS		3	11	1	15
	E3+STS		2	6		8
	Total	8	24	40	8	80

Irrigated vs. Non-irrigated Yields. Duplicate tests were conducted at the Milan and Springfield AgResearch and Education Center locations with and without irrigation. Irrigation had a large impact on yield in 2024, with the largest differences observed in MG3 tests at both locations and at all tests at the Springfield location. The irrigated tests at Milan exhibited a yield advantage compared to the non-irrigated tests in all tests: MG-3 (+37 bu/ac), MG-4E (+ 15 bu/a), MG-4L (+ 13 bu/a), and MG-5 (+ 6 bu/a). Springfield showed an even larger yield advantage from irrigation: MG-3 (+38 bu/ac), MG-4E (+34 bu/a), MG-4L (+41 bu/a), and MG-5 (+36 bu/a).

Growing Season: Soybean official variety trials were planted across all AgResearch and Education Center locations in mid-May, except for AgriCenter International, which was planted in June. Throughout May, statewide soybean planting was ahead of or on par with the 5-year average. Sixty percent of soybeans were planted by late May and 95% by late-June. June and July were marked by very hot and dry conditions. Locations in the central and Southern part of the state suffered more from a lack of timely

rainfall, with conditions ranging from abnormally dry to extreme drought. By late August, only 51% of the crop was rated good to excellent. By late-October, 77% of soybeans had been harvested statewide, increasing to 95% by late November. According to the National Agricultural Statistics Service, soybean yield is projected to be 45 bu/ac in Tennessee. This is a decrease of 6 bu/ac from 2023 state average (51 bu/ac) and 6.7 bu/ac lower than the 2024 National average (51.7 bu/ac). In 2024, an estimated 1,800,000 acres of soybean were harvested in Tennessee. This is an increase of 230,000 acres compared to 2024, which had 1,570,000 acres harvested. Graphs illustrating the temperature and precipitation across the growing season for each REC location are presented below (Figure 1.)

Figure 1. Minimum, maximum, and average temperature and total precipitation by AgResearch and Education Center location across the 2024 corn growing season (April through September).

