

2024 Kentucky Soybean VARIETY PERFORMANCE TRIALS

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The Kentucky Soybean Variety Performance Trials are conducted to provide an unbiased and objective estimate of the relative performance of soybean varieties commercially available in Kentucky. Annual evaluation of soybean varieties provides farmers, seed producers, and other agricultural workers with current information to help them select the varieties best adapted to their locality and individual requirements.

In 2024, 127 soybean varieties were planted in eight trials at six test locations. Trial locations and planting and harvest dates are shown in Table 1.

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Methods

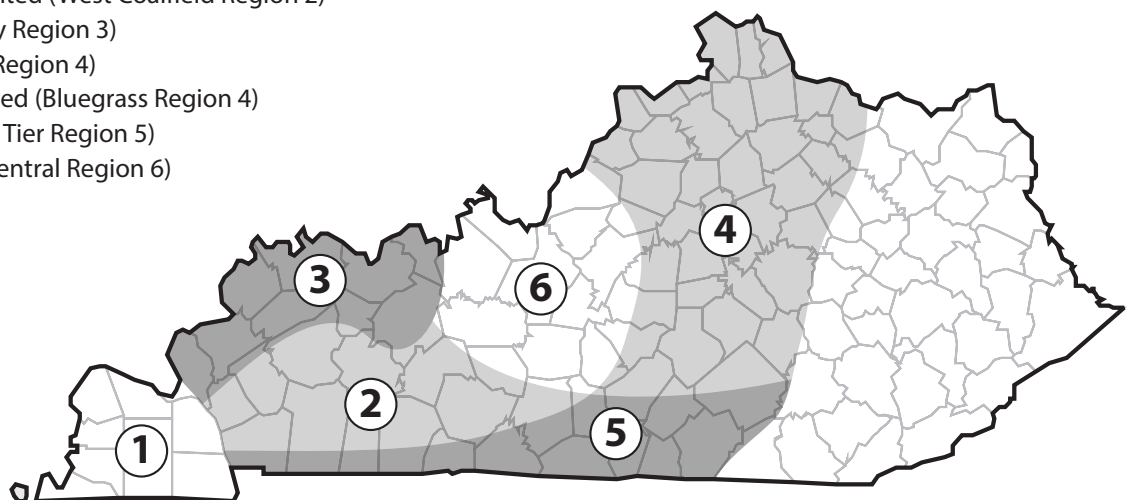
All trials were planted in a randomized complete block design by maturity group with a no-till plot planter (Haldrup SNT-25, 6-rows – Haldrup USA). The trials (Tables 4-6) had three replications (plots) for each variety. The individual plots were 20 feet long and six rows wide with 15 inches between rows. Five viable seeds per foot of row were planted at a depth of approximately 1.5 inch. All test sites were treated with fertilizers, lime, and herbicides before planting following current IPM and fertilizer/lime recommendations ([UK ID-249: A Comprehensive Guide to Soybean Management in Kentucky](#)). Seed source and varietal information are located in Table 2. Companies nominated their varieties and could choose to treat their seed with fungicides, insecticides, nematicides, beneficial organisms, and/or germination/growth/systemic acquired resistance enhancers (Table 2). The plots were maintained as weed-free as possible during the growing season. All plots were mechanically end-trimmed during the early vegetative stages (V1 to V3) to a length of 15.5 feet.

Harvesting was done with a research plot combine (Wintersteiger Delta plot combine – Wintersteiger, USA) according to maturity. The four center rows of each plot were harvested.

Figure 1. 2024 Kentucky Soybean Variety Performance Trial Sites.

Calloway County (Purchase Region 1)
Caldwell County (West Coalfield Region 2)
Caldwell County – Late Planted (West Coalfield Region 2)
Daviess County (Ohio Valley Region 3)
Fayette County (Bluegrass Region 4)
Fayette County – Late Planted (Bluegrass Region 4)
Simpson County (Southern Tier Region 5)
Woodford County (North Central Region 6)

Agroclimatic regions



Yield is reported in bushels (60 pounds) per acre adjusted to 13% moisture. An electronic weight and moisture monitor (HarvestMaster HM800 GrainGage system, Juniper Systems, Inc., USA) located on the combine was used to record grain weight and moisture readings for each plot. Data were collected with a field PC using Mirus software (Mirus Harvest Software, Juniper Systems, Inc., USA), and analyzed with Agrobase GEN II statistical software (Agronomix Software Inc., Canada).

Lodging was recorded at harvest at all test sites. Lodging was rated on a scale of 1 to 5, where 1 = all plants erect; 2 = all plants over slightly or a few down; 3 = all plants over moderately or 25% down; 4 = all plants over considerably or 50% down; 5 = over 50% to all plants down.

Maturity date. Maturity dates were recorded at the Woodford County location. A variety was considered mature when 99% of the pods had turned their normal mature color.

Plant height was measured in inches from the soil surface to the tip of the main stem. Plant height was recorded at the Woodford County location, just prior to harvest.

Seed samples. Protein, Oil – whole seed. Varietal protein and oil concentrations are reported on the basis of 13% moisture. The samples were collected from 3 replicated plots at the Woodford Co. location and were analyzed with a NIR spectrophotometer (DA 7250, Perten Instruments, Sweden).

Interpretation

Performance of soybean varieties is affected by many factors, including year, location, soil type, and time of planting. A particular soybean variety is adapted for full-season growth in a band approximately 100 miles wide from north to south. Thus, the best variety in Northern Kentucky may not be best adapted for southern areas. For this reason, the Kentucky Soybean Variety Performance Trials are conducted at multiple locations in the major soybean-producing areas of the state. The yields as reported in this publication should be used for relative comparisons; actual yields on a grower's farm may be different.

Performance of soybean varieties will vary from year to year and from location to location depending on adaptability, weather conditions, and management practices. Performance of a variety across multiple years and locations is the best indicator of its production potential. The data presented in tables 4-6 list the yields from the Early, Medium, and Late Maturity trials for each location and the average across locations and years. The average state summary results provide the best estimate of varietal performance. To factor in local environmental factors, growers may also use the average state results in conjunction with data from individual regional trial locations. The state summary data is also recommended for selecting varieties in double-crop systems. Better yielding full-season varieties tend to be better in a double-crop system. The full-season environment that maximizes yield is a better indicator of performance than late-planted soybeans that routinely have reduced yields associated with environmental stress factors. This year, two late planted trials were conducted at the Fayette and Caldwell locations. This was done to re-evaluate the performance relationship between full season and late planted (double-crop environment) soybeans among modern varieties.

Small differences in yield are usually of little importance. The yield of two varieties at a single location can differ because of chance factors (difference in soil characteristics, fertility, or availability of moisture), although the inherent yielding ability is the same. To decide if an observed yield difference is real, the least significant difference (LSD) values cited at the bottom of each maturity group should be used. The significance level in tables 4-6 is 0.10. If the difference in yield between two varieties is greater than the LSD value, it is reasonable to assume that the varieties differ in yield potential.

Yield is only one factor to consider in selecting a variety for a production system. Secondary characteristics, such as oil and protein content, technology traits, date of maturity, lodging resistance, and disease resistance may also be important components in making variety selection decisions.

In cases of known soybean cyst nematode (SCN) problems, a resistant variety should be used in the production system with a recommended crop rotation program. Planting resistant varieties should be considered as the number of acres affected by SCN in Kentucky has increased. SCN occurs in at least 51 Western Kentucky counties. Low levels of SCN show few or no visible symptoms but can cause yield losses of up to 25 percent. Fields should be tested for SCN regularly. Producers should contact their local University of Kentucky County Extension office for more information on collecting and submitting samples.

Growing Conditions – 2024

Kentucky experienced above normal temperatures and precipitation April through July, with below normal temperatures and dry conditions in August and September. A warmer growing season and dry late-season conditions accelerated harvest maturity. Hurricane Helene brought much needed precipitation for actively growing crops in late September and stopped/delayed soybean harvest for a week. Dry conditions in October favored timely harvest of the remaining soybean acreage. The late-planted trial in Fayette County sustained major canopy freeze damage on October 16 and did not make harvest maturity at the time of this publication. Detailed weather data for all test locations are presented in Table 3.

Kentucky Soybean Production Information

As of October 11, 2024, soybean production for Kentucky was forecast at 104 million bushels, up 4% from 2023. Yield was estimated at 51 bushels per acre, down 4.0 bushels from a year ago. Acreage for harvest as beans was estimated at 2.04 million acres, up 220,000 acres from the previous year. (Source: October Crop Production, Kentucky – News Release USDA, NASS, Kentucky Field Office, October 11, 2024).

Acknowledgments

In addition to the collaborators mentioned in Table 1, the authors also would like to thank:

- The Kentucky Soybean Promotion Board for funding the Kentucky Soybean Variety Performance Test program's projects.
- Seed nominators for their continuous support and interest in the Kentucky soybean variety performance trials.
- The University of Kentucky Soybean Science Group, Dale Peck, Bryan Kuegel, Randy Mann, the UKREC, Woodford and Spindletop farm crews, Shannon Rudd, Matt Peake, Jason Robertson, and the Murray State farm crew.

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Table 1. Locations and planting and harvest dates for the 2024 Kentucky Soybean Variety Performance Trials.

REGION		TEST SITE	COLLABORATORS	PLANTING DATES	HARVEST DATES
1	Purchase	Calloway County	Jason Robertson, Murray State University	4/26/2024	Early: 9/19/24; Medium: 9/19/24; Late: 9/19/24
2	West Coalfield	Caldwell County	Scott Peek and Bobby Orange, University of Kentucky Research and Education Center	4/27/2024	Early: 9/18/24; Medium: 9/18/24; Late: 9/18/24
3		Caldwell County - Late Planted		6/24/2024	Early: 10/24/24; Medium: 10/24/24; Late: 10/24/24
4	Ohio Valley	Daviess County	Bryan Kuegel, farmer-cooperator	4/24/2024	Early: 9/17/24; Medium: 10/9/24; Late: 10/9/24
5	Bluegrass	Fayette County	Matt Peake, University of Kentucky Spindletop Research Farm	5/1/2024	Early: 9/20/24; Medium: 10/7/24; Late: 10/7/24
6		Fayette County - Late Planted		6/27/2024	Delayed harvest: Major freeze damage on 10-16-24
7	Southern Tier	Simpson County	Randy Mann, farmer-cooperator	4/25/2024	Early: 9/16/24; Medium: 10/11/24; Late: 10/11/24
8	North Central	Woodford County	Shannon Rudd, University of Kentucky Woodford Research Farm	4/29/2024	Early: 9/22/24; Medium: 9/22/24; Late: 10/6/24

Table 2. 2024 Kentucky Soybean Variety Trials - Source of Seed and Variety Specifications.^A

VARIETY NAME	Maturity Group	Herbicide Technologies ^B	Disease Resistance Traits ^C				Other ^{C,E}	Seed treatment(s)
			Soybean Cyst Nematode resistance	Phytophthora soja ^D		Sudden death syndrome		
				Resistance gene	Field tolerance			
BASF - Xitavosoybeanseed.com								
Xitavo XO 3795E	3.7	Enlist E3	3, 14	No gene	MR	MR		ObviousPlus, Poncho, Votivo, Ileva
Xitavo XO 3855E	3.9	Enlist E3	3, 14	1k	MR	MR		ObviousPlus, Poncho, Votivo, Ileva
Xitavo XO 4255E	4.2	Enlist E3	3, 14	1c	MR	MS		ObviousPlus, Poncho, Votivo, Ileva
Xitavo XO 4364E	4.3	Enlist E3	3, 14	1k	MR	MR		ObviousPlus, Poncho, Votivo, Ileva
Xitavo XO 4405E	4.4	Enlist E3	3, 14	1a	MR	MR		ObviousPlus, Poncho, Votivo, Ileva
Xitavo XO 4772E	4.7	Enlist E3	3, 14	No gene	MR	MS		ObviousPlus, Poncho, Votivo, Ileva
Xitavo XO 4894E	4.8	Enlist E3	3, 14	1c	MR	MR		ObviousPlus, Poncho, Votivo, Ileva
Bayer Asgrow - cropscience.bayer.com								
ASGROW AG33XF3	3.3	XF	R3	1c	5	4		Acceleron F&I
ASGROW AG36XF4	3.6	XF	R3	1c	4	4		Acceleron F&I
ASGROW AG38XF3	3.8	XF	R3	1c	5	5		Acceleron F&I
ASGROW AG40XF5	4.0	XF/SR	R3	1c	5	5		Acceleron F&I
ASGROW AG42XF4	4.2	XF	MR3	1c	5	3		Acceleron F&I
ASGROW AG43XF5	4.3	XF	R3	1c	4	5		Acceleron F&I
ASGROW AG44XF4	4.4	XF/SR	R3	1a	4	4		Acceleron F&I
ASGROW AG45XF3	4.5	XF/SR	R3	1c	5	4		Acceleron F&I
ASGROW AG46XF3	4.6	XF/SR	R3	1c	5	4		Acceleron F&I
ASGROW AG47XF5	4.7	XF/SR	R3	1c	7	3		Acceleron F&I
ASGROW AG48XF3	4.8	XF/SR	R3	1c	5	4		Acceleron F&I
ASGROW AG49XF4	4.9	XF/SR	MR3	None	6	6		Acceleron F&I
Channel Seed - channel.com								
CHANNEL 3725RFX	3.7	XTFlex	PI88788	Rps1c	6	3		Acceleron F&I
CHANNEL 4125RFX	4.1	XTFlex	PI88788	Rps1c	5	4		Acceleron F&I
CHANNEL 4525RFX	4.5	XTFlex	PI88788	Rps1c	5	4		Acceleron F&I
CONNECT 4025E	4.0	E3	R3					Acceleron F&I
CONNECT 4525E	4.5	E3, STS	R3	Rps1c	5	5		Acceleron F&I
CNI - cniag.com								
Integra XF4634S	4.6	XTFlex/STS					RKN-MT	
Integra XF4875S	4.8	XTFlex/STS						
Fortus 4125ES	4.1	E3, STS						
Fortus 4335E	4.3	E3						
Fortus 4655ES	4.6	E3, STS						
Dyna-Gro Seed - nutrienagsolutions.com								
Dyna-Gro S38EN75	3.8	Enlist E3	R3, MR14	1k	T	MR	FLS - MR	Equity VAYO & Saltro
Dyna-Gro S40EN54	4.0	Enlist E3	R3	1c	MT	MS	FLS - MR	Equity VAYO & Saltro
Dyna-Gro S41XF65	4.1	XTFlex	MR3	1c	T	MR	FLS - MR	Equity VAYO & Saltro
Dyna-Gro S43XF85S	4.3	XTFlex	R3, MR14	None	MT	MR	FLS - R	Equity VAYO & Saltro
Dyna-Gro S45EN25	4.5	Enlist E3	R3	1K	MT	MS	FLS - MS	Equity VAYO & Saltro
Dyna-Gro S47XF23S	4.7	XTFlex	R3	1c	MT	MR-MS	FLS - MS	Equity VAYO & Saltro
Dyna-Gro S48XF35	4.8	XTFlex	MR3	1c	MT	MR-MS	FLS - MS	Equity VAYO & Saltro

continued

Table 2. (continued)

VARIETY NAME	Maturity Group	Herbicide Technologies ^B	Disease Resistance Traits ^C				Other ^{C,E}	Seed treatment(s)
			Soybean Cyst Nematode resistance	Phytophthora soja ^D		Sudden death syndrome		
				Resistance gene	Field tolerance			
GDM Seeds - gdmseeds.com								
DM 46F54S	4.6	XTFlex	PI88788			1.5		Cruiser Maxx, Vibrance
DM 48F53	4.8	XTFlex	None			1.5		Cruiser Maxx, Vibrance
Golden Harvest - goldenharvestseeds.com								
Golden Harvest GH3774E3	3.7	E3	MR3, MR14	Rps 1c, 3a	4	2	FLS - 3	Cruiser Maxx, Saltro
Golden Harvest GH4093E3	4.0	E3	MR3, MR14	Rps 1c	3	2	FLS - 4	Cruiser Maxx, Saltro
Golden Harvest GH4214E3S	4.2	E3/STS	MR3	Rps 1c	2	4	FLS - 2	Cruiser Maxx, Saltro
Golden Harvest GH4345XFS	4.3	XTFlex/STS	MR3	Rps 1c	2	4	FLS - 2	Cruiser Maxx, Saltro
Golden Harvest GH4433E3S	4.4	E3/STS	MR3, MR14	Rps 1c	3	2	FLS - 2	Cruiser Maxx, Saltro
Golden Harvest GH4775E3S	4.7	E3/STS	MR3	Rps 1k	3	4	FLS - 2	Cruiser Maxx, Saltro
Golden Harvest GH4864XFS	4.8	XTFlex/STS	MR3	Rps 1c	2	3	FLS - 5	Cruiser Maxx, Saltro
Golden Harvest GH4944XFS	4.9	XTFlex/STS	R3	Rps 1k	3	3	FLS - 4	Cruiser Maxx, Saltro
Golden Harvest GH4995E3S	4.9	E3/STS	R3	Rps 1c	4	3	FLS - 2, RKS - 2	Cruiser Maxx, Saltro
Golden Harvest GH5253E3	5.2	E3	R3	Rps 1c	4	3	FLS - 2	Cruiser Maxx, Saltro
GROWMARK, INC - FS HiSoy Soybean Brand - growmarkfs.com								
HS 34E40	3.4	Enlist	PEKING	1k	MT	MR		Acceleron I&F, Saltro
HS 36E40	3.6	Enlist	PI88788	None	MT	MR		Acceleron I&F, Saltro
HS 36F40	3.6	XTFlex	PI88788	1c	MT	MR		Acceleron I&F, Saltro
HS 37E10	3.7	Enlist	PI88788	1k	MT	MR		Acceleron I&F, Saltro
HS 37E40	3.7	Enlist	PI88788	1k	MT	MR		Acceleron I&F, Saltro
HS 38E20	3.8	Enlist	PI88788	1c	MT	MT		Acceleron I&F, Saltro
HS 38F20	3.8	XTFlex	PI88788	None	MT	MR		Acceleron I&F, Saltro
HS 39E40	3.9	Enlist	PI88788	None	MT	MR		Acceleron I&F, Saltro
HS 39F30	3.9	XTFlex	PI88788	1c	MT	T		Acceleron I&F, Saltro
HS 40E30	4.0	Enlist	PI88788	1c	MT	MT		Acceleron I&F, Saltro
HS 41E40	4.1	Enlist	PI88788	None	MT	MT		Acceleron I&F, Saltro
HS 42E40	4.2	Enlist	PI88788	None	MT	MT		Acceleron I&F, Saltro
HS 44E40	4.4	Enlist	PI88788	1k	MT	MT		Acceleron I&F, Saltro
HS 45E00	4.5	Enlist	PI88788	1a	MT	MT		Acceleron I&F, Saltro
HS 46F40	4.6	XTFlex	PI88788	1c	T	MT		Acceleron I&F, Saltro
HS 48E40	4.8	Enlist	PI88788	None	MT	MR		Acceleron I&F, Saltro
HS 48F40	4.8	XTFlex	PI88788	1c	MT	MR		Acceleron I&F, Saltro
Innvictis Seed Solutions - www.innvictisseed.com								
Innvictis A3974XF	3.9	XTFlex	3		T	MT		Revize PBI
Innvictis B3974E	3.9	Enlist E3	3	Rps 1c	T	T		Revize PBI
Innvictis A4102XF	4.1	XTFlex	3	Rps 1a	T	MT		Revize PBI
Innvictis A4503XF	4.5	XTFlex	3	Rps 1k	T	MT	IDC	Revize PBI
Innvictis B4553E	4.5	Enlist E3	3,14	Rps 1c	T	T	RKN	Revize PBI
Innvictis A4664XF	4.6	XTFlex		Rps 1c	T	MT	FLS, SC_R	Revize PBI
Innvictis A4814XF	4.8	XTFlex	3	Rps 1k	MT	MT		Revize PBI
Innvictis A4862XF	4.8	XTFlex	3	None	MT	T		Revize PBI
Innvictis A4924XF	4.9	XTFlex	3	None	MT	MT		Revize PBI
Innvictis B4904E	4.9	Enlist E3	3	Rps 1c	MT	MT		Revize PBI

continued

Table 2. (continued)

VARIETY NAME	Maturity Group	Herbicide Technologies ^B	Disease Resistance Traits ^C				Other ^{C,E}	Seed treatment(s)
			Soybean Cyst Nematode resistance	Phytophthora soja ^D		Sudden death syndrome		
				Resistance gene	Field tolerance			
Revere Seed - RevereSeed.com								
Revere 36-E54	3.6	Enlist E3	R3 + MR14	Rps 1k	0.5	MR		Radius Premium
Revere 3908XFS	3.9	Xtend/STS	MR3		0	T	SC-R	Radius Premium
Revere 39-E71	3.9	Enlist E3	R3 + MR14	Rps 1c	0.5	T	SC-R	Radius Premium
Revere 44-F44	4.4	Xtend	R3 + MR14	Rps 1c	4	MR	SC-R	Radius Premium
Revere 47-F77	4.7	XTFlex/STS	R3 + MR14					Radius Premium
Revere 4826XFS	4.8	XTFlex	R3 + MR14	Rps 1c	2	T	SC-R	Radius Premium
Revere 49-F36	4.9	XTFlex	R3 + MR14	Rps 1c	3	S	SC-R	Radius Premium
NuTech Seed - nutechseed.com								
NuTech 35N05E	3.5	E3	PEKING	1k	MT	MR		Luminesa, Gaucho, llevo
NuTech 36N06E	3.6	E3	PI88788	1k	MT	MR		Luminesa, Gaucho, llevo
NuTech 37N03E	3.7	E3	PI88788	1k	MT	MR		Luminesa, Gaucho, llevo
NuTech 38N05E	3.8	E3	PI88788	1c	MT	MR		Luminesa, Gaucho, llevo
NuTech 39N08E	3.9	E3	PEKING	1k	MT	MR		Luminesa, Gaucho, llevo
NuTech 42N05E	4.2	E3	PI88788	1c	MT	MR		Luminesa, Gaucho, llevo
NuTech 43N06E	4.3	E3	PI88788	1a	MT	MR		Luminesa, Gaucho, llevo
NuTech 43N11BE	4.3	E3	PI88788	1k	MT	MR		Luminesa, Gaucho, llevo
NuTech 45N010E	4.5	E3	PI88788		MT	MR		Luminesa, Gaucho, llevo
NuTech 47N04E	4.7	E3	PI88788		MT	MR		Luminesa, Gaucho, llevo
NuTech 47N11BE	4.7	E3	PI88788		MT	MR		Luminesa, Gaucho, llevo
NuTech 49N05E	4.9	E3	PI88788	1c	MT	MR		Luminesa, Gaucho, llevo
Partners Brand Seed - partnersbrandseed.com								
PB 3323 E3 S	3.3	E3, STS	PI88788	Rps 1k	MR	MR	FLS - MR	Alert 3030, Nforce
PB 3925 E3 S	3.9	E3, STS	R3, MR14	NG	MR	MR	FLS - MR	Alert 3030, Nforce
PB 4424 E3 S	4.4	E3, STS	R3, MR14	Rps 1k	MR	MR	FLS - MR	Alert 3030, Nforce
PB 4624 E3 S	4.6	E3, STS	R3, MR14	Rps 1c	MR	MR	FLS - MR	Alert 3030, Nforce
PB 4726 E3 S	4.7	E3, STS	R3, MR14	NG	MR	R	FLS - R	Alert 3030, Nforce
Seedkoz - APEX & Catalyst Brands								
APEX AE4342S	4.3	E3, STS						Radius Premium
APEX AE4640S	4.6	E3, STS	R3, MR14	Rps 1c	3	T	SC-R	Radius Premium
CATALYST CT3933E3	3.9	E3						Radius Premium
CATALYST CT4413E3S	4.4	E3, STS					RKN	Radius Premium
Pioneer Hi-Bred International, Inc. - pioneer.com								
PIONEER P38A28E	3.8	Enlist E3	PI88788					LUMIGEN
PIONEER P42A84E	4.2	Enlist E3	PI88788		MT	T	SC-R	LUMIGEN
PIONEER P45A81E	4.5	Enlist E3	PI88788		MT	T		LUMIGEN
PIONEER P45Z75E	4.5	Enlist E3	PI88788		MT	T		LUMIGEN
PIONEER P48A14E	4.8	Enlist E3	PI88788		MT	T	SC-R	LUMIGEN
PIONEER P49Z02E	4.9	Enlist E3	PI88788		MT	T		LUMIGEN

continued

Table 2. (continued)

VARIETY NAME	Maturity Group	Herbicide Technologies ^B	Disease Resistance Traits ^C				Other ^{C,E}	Seed treatment(s)
			Soybean Cyst Nematode resistance	Phytophthora soja ^D		Sudden death syndrome		
				Resistance gene	Field tolerance			
Stine Seed Company - stinseed.com								
STINE 39EF32	3.9	E3						Stine XP Seed Guard Bio
STINE 39EH23	3.9	E3						Stine XP Seed Guard Bio
STINE 41EG20	4.1	E3, STS	MT	R	R	T		Stine XP Seed Guard Bio
STINE 42EG23	4.2	E3, STS	R	R	R	R		Stine XP Seed Guard Bio
STINE 43EG29	4.3	E3, STS	R	R	R	R		Stine XP Seed Guard Bio
STINE 44EH23	4.4	E3						Stine XP Seed Guard Bio
STINE 45EH29	4.5	E3						Stine XP Seed Guard Bio
STINE 46EE20	4.6	E3	R	R	R	T		Stine XP Seed Guard Bio
STINE 46EG92	4.6	E3, STS	R	E	MR	MT		Stine XP Seed Guard Bio
STINE 48EE20	4.8	E3	R		T	MR		Stine XP Seed Guard Bio
UniSouth Genetics, Inc. - usgseed.com								
USG 7435XFS	4.3	XTFlex/STS	R3, MR14		MS	MR	MS-RKN, MR FELS, SC-R	Metalaxyl, Imidacloprid, Rancona
USG 7463XF	4.6	XTFlex	None	Rps1c	MR	MR	FE-R, SC-R, MR-FELS	Metalaxyl, Imidacloprid, Rancona
USG 7474XFS	4.7	XTFlex/STS	R3, MR14	Rps1c	MR	MR	SC-R, EXC	Metalaxyl, Imidacloprid, Rancona
USG 7495XFS	4.9	XTFlex/STS	R3, MR14	Rps1c	MR	MR	MR-FELS, SC-R	Metalaxyl, Imidacloprid, Rancona
Winfield United - www.winfieldunited.com								
ARMOR 39-E35S	3.9	Enlist/E3/STS						Warden CXII
ARMOR 41-F65	4.1	XTFlex						Warden CXII
ARMOR 45-F65	4.5	XTFlex						Warden CXII
ARMOR 46-E75S	4.6	Enlist/E3/STS						Warden CXII
ARMOR 46-F15S	4.6	XTFlex/STS						Warden CXII
ARMOR 48-E95	4.8	Enlist/E3						Warden CXII

^A This information is provided by the seed nominators and has not been verified by the soybean variety performance test program.

^B Xtend/X/XT: dicamba-tolerant soybean variety; E3/Enlist: variety tolerant to Enlist Duo™ herbicide; RR2: second generation Roundup Ready 2 Yield soybean variety (introduced in 2009) ; SR/STS: sulfonyleurea-tolerant soybean variety; XF/XTFlex/Xtend Flex: variety tolerant to dicamba, glyphosate and glufosinate herbicides.

^C S: susceptible; MS: moderately susceptible; MT: moderately tolerant; T: tolerant; MR: moderately resistant; R: resistant; blank space: no information provided or information unknown.

^D All races of Phytophthora sojae identified so far in Kentucky can be controlled with varieties in the Rps 1c or 1k. Race-specific resistance is highly effective but requires a proper match between pathogen race and soybean variety. Field tolerance is a lower level of protection that will provide good control against all races. Seed and young seedlings of tolerant soybean varieties must be protected with a fungicide since field tolerance develops after early seedling growth stages.

^E FLS: frogeye leaf spot, RKN: root knot nematode, SC-R: stem canker resistant.

Table 3. Agronomic Test Site Information for Eight Trials.

Location		Daviess County	Calloway County	Fayette County	Fayette County - Late
Region		Ohio Valley	Purchase	Bluegrass	Bluegrass
GPS coordinates		37.6925399, -87.222122	36.6127725, -88.3476434	38.1181728, -84.4889051	38.12381269, -84.49414155
Ag. practice		Minimal tillage	No-till	No-till	No-till
Previous crop		Corn	Corn / wheat cover	Corn	Corn
Planting date		4/24/2024	4/26/2024	5/1/2024	6/27/2024
SCN (eggs/cup of soil, 250 cm³)		0	600	144	144
Precipitation (in) & Temperature °F (Average - Max/Min)	April	3.8 (60.9 - 86.5/30.7)	5.4 (61.4 - 83.1/32.5)	3.9 (57.6 - 81.4/30.3)	3.9 (57.6 - 81.4/30.3)
	May	11.6 (70.1 - 87.9/52.4)	8.7 (70.1 - 86.4/50.5)	4.6 (67.3 - 85.0/44.8)	4.6 (67.3 - 85.0/44.8)
	June	2.6 (75.7 - 94.3/50.6)	3.6 (75.4 - 93.6/51.6)	2.4 (73.6 - 92.9/47.5)	2.4 (73.6 - 92.9/47.5)
	July	3.4 (77.3 - 92.9/56.8)	6.2 (77.8 - 93.1/59.9)	2.5 (76.7 - 96.4/53.2)	2.5 (76.7 - 96.4/53.2)
	August	1.5 (76.4 - 100.5/47.2)	1.2 (76.8 - 100.1/53.9)	3.3 (74.5 - 97.5/48.9)	3.3 (74.5 - 97.5/48.9)
	September	6.2(70.8 - 93.8/40.2)	7.5(72.1 - 92.7/43.6)	6.3(70.6 - 88.3/48.2)	6.3(70.6 - 88.3/48.2)
Soil Properties:					
Soil color (field observations)		black	brown	black	black
Soil type (USDA soil survey)		Patton silt loam	Grenada silt loam	Lanton silty clay loam	Lanton silty clay loam
Slope (USDA soil survey)		0 to 2 %	0 to 2%	0 to 2 %	0 to 2 %
Soil texture		silt loam	silt loam	silt loam	silt loam
Sand (%)		7.8	3.7	8.2	8.2
Silt (%)		74.3	78.3	69.4	69.4
Clay (%)		17.9	12.5	22.1	22.1
Soil water pH		6.4	5.8	5.8	5.8
Fertility:					
Macronutrients (lbs/ac)					
P		290	98	304	304
K		165	289	335	335
Ca		3646	2580	6442	6442
Mg		480	186	387	387
Zn		4.6	2.5	6.0	6.0
C & N					
Soil Organic Matter (%)		2.6	1.8	4.0	4.0
Total_N (%)		0.2	0.2	0.2	0.2

continued

Table 3. (continued)

Location		Caldwell County	Caldwell County - Late	Simpson County	Woodford County
Region		West Coalfield	West Coalfield	Southern Tier	North Central
GPS coordinates		37.0959421, -87.8625897	37.0959421, -87.8625897	36.7880406, -86.6180465	38.0727597, -84.7396969
Ag. practice		No-till	No-till	Minimal tillage	Conventional tillage
Previous crop		Tobacco / wheat cover	Tobacco / wheat cover	Corn	Soybean
Planting date		4/27/2024	6/24/2024	4/25/2024	4/29/2024
SCN (eggs/cup of soil, 250 cm³)		40	40	280	0
Precipitation (in) & Temperature °F (Average - Max/Min)	April	3.4 (60.5 - 83.2/30.5)	3.4 (60.5 - 83.2/30.5)	3.4 (60.6 - 83.3/30.2)	3.9 (57.6 - 81.4/30.3)
	May	8.9 (69.6 - 86.3/47.9)	8.9 (69.6 - 86.3/47.9)	11.4 (69.4 - 87.4/49.3)	4.6 (67.3 - 85.0/44.8)
	June	4.3 (75.1 - 94.0/50.0)	4.3 (75.1 - 94.0/50.0)	3.4 (75.6 - 94.8/51.7)	2.4 (73.6 - 92.9/47.5)
	July	3.5 (77.2 - 92.1/59.1)	3.5 (77.2 - 92.1/59.1)	4.9 (78.0 - 94.6/58.0)	2.5 (76.7 - 96.4/53.2)
	August	0.4 (76.1 - 99.0/55.0)	0.4 (76.1 - 99.0/55.0)	1.8 (76.2 - 98.9/55.7)	3.3 (74.5 - 97.5/48.9)
	September	6.5(72.3 - 93.4/43.4)	6.5(72.3 - 93.4/43.4)	5.9(72.2 - 93.6/46.1)	6.3(70.6 - 88.3/48.2)
Soil Properties:					
Soil color (field observations)		brown red	brown red	brown red	dark brown
Soil type (USDA soil survey)		Crider silt loam	Crider silt loam	Loring silt loam	Lanton silt loam
Slope (USDA soil survey)		2 to 6 %	2 to 6 %	0 to 2%	0 to 2%
Soil texture		silt loam	silt loam	silt loam	silt loam
Sand (%)		9.3	9.3	7.2	11.6
Silt (%)		78.2	78.2	76.8	73.3
Clay (%)		12.5	12.5	16.0	15.0
Soil water pH		6.6	6.6	6.2	6.8
Fertility:					
Macronutrients (lbs/ac)					
P		166	166	189	245
K		420	420	375	339
Ca		4220	4220	3564	3750
Mg		329	329	145	279
Zn		4.4	4.4	707.0	12.9
C & N					
Soil Organic Matter (%)		3.5	3.5	1.8	2.3
Total_N (%)		0.2	0.2	0.1	0.1

Table 4. 2024 Kentucky Soybean Variety Trial - Early Maturity (MG 3.3 - 3.9).

Variety	MG	Herbicide Technologies	State Average*		Daviness	Simpson	Calloway	Caldwell	Woodford	Fayette	Late Planted	Protein	Oil	Height	Maturity Date	Lodging*
			2024	2023-24							Caldwell					
			Yield (bu/a)													
NUTECH 38N05E	3.8	E3	68.6		96.0	67.8	64.7	68.4	67.9	46.7	28.6	40.1	21.5	28	15	1.0
HS 37E40	3.7	Enlist	68.3		94.4	73.8	62.9	62.5	70.8	45.2	28.5	40.3	20.9	28	16	1.1
Golden Harvest GH3774E3	3.7	E3	68.1		95.9	72.6	69.7	61.2	64.0	45.2	27.7	39.8	20.8	30	14	1.0
HS 34E40	3.4	Enlist	67.9		99.3	62.8	71.8	59.7	69.6	44.1	32.2	39.6	20.9	28	10	1.0
HS 37E10	3.7	Enlist	66.7		95.4	66.9	60.6	65.3	65.9	46.2	23.9	40.2	21.2	29	15	1.2
STINE 39EH23	3.9	E3	66.4		88.6	69.4	60.5	63.4	69.8	46.4	32.1	39.3	21.2	31	15	1.2
NUTECH 36N06E	3.6	E3	66.0		89.7	67.4	67.5	63.2	64.6	43.4	31.5	39.6	21.3	27	10	1.2
Dyna-Gro S38EN75	3.8	Enlist E3	65.8		88.2	70.7	59.5	62.4	69.3	44.8	33.0	39.6	21.3	27	17	1.1
HS 36F40	3.6	XTFlex	65.7		89.1	76.2	62.5	59.8	61.1	45.4	29.3	40.4	19.6	27	11	1.4
NUTECH 39N08E	3.9	E3	65.4		88.6	65.3	66.8	64.6	67.4	39.9	31.4	39.9	20.7	31	11	1.4
NUTECH 37N03E	3.7	E3	65.4	76.3	89.1	70.9	62.2	57.9	68.0	44.2	30.9	39.9	21.5	30	11	1.4
CATALYST CT3933E3	3.9	E3	65.4		98.7	65.9	60.2	56.5	61.4	49.4	32.9	39.4	20.5	32	12	1.1
PB 3323 E3 S	3.3	E3, STS	65.3		93.5	68.0	59.1	60.9	68.9	41.5	28.9	40.1	21.5	29	11	1.1
PIIONEER P38A28E	3.8	Enlist E3	64.9		85.4	69.0	63.9	59.7	65.7	45.4	30.1	38.4	21.1	31	10	1.7
ASGROW AG38XF3	3.8	XTFlex	64.6	72.7	89.2	67.5	61.1	61.5	62.5	46.0	32.8	39.8	20.1	29	11	1.0
ASGROW AG36XF4	3.6	XTFlex	64.6		93.2	69.7	59.5	57.3	65.4	42.5	30.6	39.8	19.8	30	13	1.1
HS 39E40	3.9	Enlist	64.5		89.9	63.4	58.7	64.1	66.9	44.0	32.6	39.5	20.6	28	13	1.1
ASGROW AG33XF3	3.3	XTFlex	64.5	70.7	92.2	65.8	61.1	64.0	64.0	39.5	33.1	40.0	20.6	29	11	1.0
NUTECH 35N05E	3.5	E3	64.1		86.4	74.2	65.8	54.2	67.2	36.7	28.1	39.5	21.4	29	9	1.1
HS 36E40	3.6	Enlist	63.7		95.0	63.2	56.9	59.5	65.2	42.4	30.3	38.9	21.3	28	9	1.1

continued

Table 4. (continued)

Variety	MG	Herbicide Technologies	State Average*		Davie	Simpson	Calloway	Caldwell	Woodford	Fayette	Late Planted	Protein	Oil	Height	Maturity Date	Lodging*
			2024	2023-24							Caldwell					
			Yield (bu/a)													
CHANNEL 3725RXF	3.7	XTFlex	63.7		83.8	64.7	59.3	58.8	69.5	46.1	33.4	39.1	20.3	33	10	1.1
Innvictis B3934E	3.9	Enlist E3	63.4		90.7	64.9	56.7	57.0	65.4	45.8	27.9	39.6	20.6	33	13	1.2
PB 3925 E3 S	3.9	E3, STS	63.2		81.0	65.7	57.1	62.1	70.1	43.4	36.2	38.5	21.0	27	14	1.2
HS 38E20	3.8	Enlist	62.9		89.9	62.2	57.2	58.9	60.3	49.0	29.6	38.2	20.6	33	15	1.4
Revere 36-E54	3.6	Enlist E3	62.9		88.0	66.2	59.2	67.4	59.0	37.7	25.2	42.1	20.2	27	12	1.2
Revere 3908XFS	3.9	Xtend/STS	62.5	72.5	89.0	67.3	57.0	52.3	64.7	44.4	31.3	40.1	19.8	33	13	1.2
Innvictis A3974XF	3.9	XTFlex	62.4		91.0	65.1	57.1	52.3	61.0	48.1	33.9	39.0	20.9	32	15	1.4
Xitavo XO 3855E	3.9	Enlist E3	62.3		86.3	66.0	56.9	54.7	65.9	43.8	27.8	40.9	20.1	27	14	1.3
ARMOR 39-E35S	3.9	Enlist/E3/STS	61.5		84.0	65.8	55.6	54.0	65.1	44.6	33.1	39.0	21.1	28	15	1.3
HS 39F30	3.9	XTFlex	61.4	72.6	83.8	66.5	55.3	58.4	58.9	45.3	30.6	38.7	20.8	31	13	1.3
STINE 39EF32	3.9	E3	61.3	73.1	87.0	65.7	59.3	50.5	58.7	46.6	28.8	38.3	20.6	32	14	1.4
Revere 39-E71	3.9	Enlist E3	61.2		83.2	63.3	64.4	53.0	57.8	45.7	35.8	39.4	19.9	31	14	1.4
HS 38F20	3.8	XTFlex	60.6	72.8	85.3	68.5	53.9	48.3	62.7	44.8	25.2	39.0	20.9	31	13	1.6
Xitavo XO 3795E	3.7	Enlist E3	60.3		85.3	58.8	57.9	52.9	62.1	45.0	23.5	38.7	20.8	33	9	1.6
Average			64.3	73.0	89.6	67.1	60.6	59.0	64.9	44.4	30.4	39.6	20.7	30	13	1.2
C.V. (%)			7.3	7.1	5.8	8.3	7.8	6.6	8.2	6.7	14.3					
LSD (0.10)			6.3	3.5	10.1	10.9	9.1	7.6	10.3	5.7	8.4					

* Summary of six full season trials (Davie, Simpson, Calloway, Caldwell, Woodford, and Fayette). Late planted trial not included in state average.

Protein and Oil values (NIR) from three reps at Woodford County location.

Height and maturity date measured at Woodford County location (three reps).

Planting date: Davie - 4/24/24; Simpson - 4/25/24; Calloway - 4/26/24; Caldwell - 4/27/24; Woodford - 4/29/24; Fayette - 5/1/24; Late Caldwell - 6/24/24; Late Fayette - 6/27/24.

Harvest date: Davie - 9/17/24; Simpson - 9/16/24; Calloway - 9/19/24; Caldwell - 9/18/24; Woodford - 9/22/24; Fayette - 9/20/2024; Late Planted Caldwell - 10/24/24; Late Planted Fayette - delayed harvest/freeze damage.

Lodging scale: 1 = no lodging, 5 = 100% lodging.

Late planted trial data highly variable - do not use for variety selection.

Table 5. 2024 Kentucky Soybean Variety Trial - Medium Maturity (MG 4.0 - 4.5).

Variety	MG	Herbicide Technologies	State Average*		Daviness	Simpson	Calloway	Caldwell	Woodford	Fayette	Late Planted	Protein	Oil	Height	Maturity Date	Lodging*
			2024	2023-24							Caldwell					
			Yield (bu/a)												%	
HS 41E40	4.1	Enlist	64.2		81.9	70.6	58.0	64.6	71.6	45.2	35.0	39.4	20.5	30	16	1.5
ARMOR 45-F65	4.5	XTFlex	64.0		92.5	62.4	62.4	57.2	61.5	46.4	32.4	38.7	20.2	31	18	1.1
ASGROW AG40XF5	4.0	XF/SR	63.7		91.2	63.3	61.5	54.5	64.0	47.5	32.9	39.4	20.8	29	15	1.6
Fortus 4125ES	4.1	E3, STS	63.3		84.1	64.1	60.9	58.4	68.7	44.6	36.5	38.2	20.7	28	17	1.5
NUTECH 43N06E	4.3	E3	63.2		81.4	69.9	66.4	56.5	61.2	50.5	42.8	38.8	20.6	35	17	1.6
Innvictis B4553E	4.5	Enlist E3	63.2		82.9	66.3	60.6	59.8	62.2	50.2	37.0	40.3	19.6	30	18	1.3
NUTECH 43N11BE	4.3	E3	63.1		87.6	63.8	62.4	50.7	67.0	48.0	38.1	39.9	19.6	31	17	1.7
CONNECT 4025E	4.0	E3	62.8		83.8	56.9	57.9	62.4	71.2	38.5	35.7	39.5	21.3	28	17	1.5
Golden Harvest GH4093E3	4.0	E3	62.4		92.8	70.4	55.3	52.8	64.8	46.2	35.0	38.7	21.9	31	15	1.1
Dyna-Gro S41XF65	4.1	XTFlex	62.2		85.1	53.2	61.2	59.2	61.1	44.4	30.5	38.8	19.9	31	17	1.3
PIONEER P45A81E	4.5	Enlist E3	62.1		94.4	64.9	55.1	53.2	59.7	48.3	43.4	37.9	20.7	34	21	1.7
Dyna-Gro S43XF85S	4.3	XTFlex	62.0		88.6	59.2	61.8	53.6	58.4	47.7	39.4	38.1	20.5	35	20	1.5
ASGROW AG43XF5	4.3	XTFlex	61.8		90.2	69.1	64.0	44.9	60.4	49.2	37.9	37.9	20.0	32	22	1.3
HS 40E30	4.0	Enlist	61.7	72.9	80.4	68.3	63.6	57.0	61.2	46.5	36.5	39.6	19.8	32	17	1.6
NUTECH 42N05E	4.2	E3	61.5	73.0	78.6	59.2	61.9	57.7	61.0	48.6	33.8	39.6	20.0	34	17	1.5
NUTECH 45N10E	4.5	E3	61.4		79.9	67.6	56.8	59.8	61.6	49.1	43.4	38.8	20.5	35	19	1.7
APEX AE4342S	4.3	E3, STS	61.3		87.3	62.1	62.5	48.8	61.2	46.6	32.3	37.3	20.9	31	17	1.7
Dyna-Gro S40EN54	4.0	Enlist E3	60.8	71.0	74.1	63.8	67.8	54.5	63.0	44.7	36.0	40.1	19.9	33	16	1.5
PIONEER P42A84E	4.2	Enlist E3	60.6	74.3	84.3	65.0	59.7	54.8	57.8	46.6	39.2	38.8	19.6	33	17	1.9
Innvictis A4102XF	4.1	XTFlex	60.6		83.4	63.8	57.8	49.5	62.0	50.5	35.0	37.8	19.8	34	18	1.5
PB 4424 E3 S	4.4	E3, STS	60.5	73.4	81.3	55.4	59.5	52.3	65.5	44.0	32.0	37.7	20.6	32	17	1.9
CHANNEL 4125RXF	4.1	XTFlex	60.5		80.9	60.3	60.4	49.9	62.6	48.7	34.5	38.7	20.0	33	19	1.6
Innvictis A4503XF	4.5	XTFlex	60.5	74.0	75.8	65.1	61.8	55.4	59.3	50.1	36.0	37.9	20.5	31	17	1.6
USG 7435XFS	4.3	XTFlex/STS	60.3		86.0	58.7	58.3	54.6	57.1	45.6	39.2	38.2	20.5	35	20	1.5
STINE 43EG29	4.3	E3, STS	60.2		84.6	56.7	56.2	48.2	64.2	47.8	40.8	38.6	20.3	34	16	1.6
Xitavo XO 4364E	4.3	Enlist E3	60.2	73.3	86.9	61.7	55.7	49.3	60.3	48.5	39.8	37.9	20.2	33	19	1.7
ARMOR 41-F65	4.1	XTFlex	60.0		84.5	67.7	61.1	53.6	54.5	46.0	35.5	39.6	20.6	32	16	1.3
STINE 42EG23	4.2	E3, STS	59.9		75.4	56.8	59.7	54.3	65.4	44.8	35.5	37.7	20.3	32	16	1.9

continued

Table 5. (continued)

Variety	MG	Herbicide Technologies	State Average*		Daviness	Simpson	Calloway	Caldwell	Woodford	Fayette	Late Planted	Protein	Oil	Height	Maturity Date	Lodging*
			2024	2023-24							Caldwell					
			Yield (bu/a)													
Dyna-Gro S45EN25	4.5	Enlist E3	59.6		77.9	66.2	60.9	44.4	62.6	52.2	42.0	39.1	20.7	35	19	1.9
HS 44E40	4.4	Enlist	58.9		73.0	63.1	58.8	54.9	62.3	45.6	39.1	40.3	21.3	35	18	1.8
ASGROW AG42XF4	4.2	XTFlex	58.8	72.7	84.9	58.0	55.0	48.1	55.1	50.7	32.7	39.3	19.6	34	21	1.2
PIONEER P45Z75E	4.5	Enlist E3	58.8		84.1	66.4	53.5	51.9	54.3	50.0	38.3	38.7	20.8	35	19	1.7
STINE 41EG20	4.1	E3, STS	58.6		76.3	67.4	57.5	52.2	64.3	42.9	37.2	39.2	21.5	33	15	1.7
STINE 45EH29	4.5	E3	58.5		76.3	61.6	56.7	49.9	61.8	47.7	38.7	39.2	20.9	37	20	1.7
CHANNEL 4525RXF	4.5	XTFlex	58.3		84.5	62.7	53.6	48.4	58.9	46.1	31.8	37.4	20.2	37	20	1.6
Golden Harvest GH4433E3S	4.4	E3/STS	57.9		82.9	69.2	54.0	45.2	63.2	44.5	37.9	40.1	19.7	31	19	1.6
Fortus 4335E	4.3	E3	57.3		70.7	62.3	59.7	47.3	62.8	46.1	37.9	40.1	20.9	33	19	1.9
CATALYST CT4413E3S	4.4	E3, STS	57.3		78.5	65.2	61.4	40.5	60.9	45.3	34.0	39.9	19.5	30	19	1.7
ASGROW AG44XF4	4.4	XF/SR	57.3	70.0	83.0	60.4	59.7	48.4	50.0	45.4	35.4	38.0	20.2	32	21	1.7
ASGROW AG45XF3	4.5	XF/SR	57.1	68.8	82.4	61.2	62.6	40.5	53.7	46.2	34.1	37.9	20.6	36	20	1.3
Revere 44-F44	4.4	Xtend	56.7		70.7	63.5	53.2	51.6	62.5	45.7	41.0	39.1	19.6	35	22	1.6
Golden Harvest GH4345XFS	4.3	XTFlex/STS	56.5		83.6	63.5	55.1	49.7	51.9	42.1	36.3	39.6	20.3	30	18	1.3
HS 42E40	4.2	Enlist	56.2		61.7	56.7	59.6	53.4	63.0	43.0	33.3	38.0	21.2	32	15	1.9
HS 45E00	4.5	Enlist	56.1		74.1	57.8	53.3	47.2	61.2	44.9	38.3	36.9	20.7	33	19	1.4
Xitavo XO 4405E	4.4	Enlist E3	55.2		70.1	58.8	51.0	48.1	59.3	47.3	42.0	39.5	20.5	33	21	1.5
CONNECT 4525E	4.5	E3, STS	54.9		70.4	61.7	56.6	47.5	53.5	46.4	28.3	39.2	20.3	34	20	1.9
Xitavo XO 4255E	4.2	Enlist E3	54.7		57.9	65.7	54.8	49.3	65.8	45.7	38.4	39.5	20.6	33	19	1.8
STINE 44EH23	4.4	E3	53.6		66.0	58.2	53.6	44.7	59.2	44.7	39.9	37.7	20.1	36	21	1.4
Golden Harvest GH4214E3S	4.2	E3/STS	52.1		64.0	64.4	49.3	42.9	56.7	47.7	35.1	38.1	21.2	33	21	1.7
Average			59.5	72.3	79.9	62.7	58.4	51.5	61.0	46.6	36.7	38.8	20.4	33	18	1.6
C.V. (%)			7.9	8.0	6.9	10.7	8.6	9.3	7.1	7.6	12.6					
LSD (0.10)			6.3	3.7	10.6	13.0	9.8	9.3	8.4	6.8	8.9					

* Summary of five full season trials (Daviness, Calloway, Caldwell, Woodford, and Fayette). Late planted trial and Simpson (variability) not included in state average.

Protein and Oil values (NIR) from three reps at Woodford County location.

Height and maturity date measured at Woodford County location (three reps).

Planting date: Daviness - 4/24/24; Simpson - 4/25/24; Calloway - 4/26/24; Caldwell - 4/27/24; Woodford - 4/29/24; Fayette - 5/1/24; Late Caldwell - 6/24/24; Late Fayette - 6/27/24.

Harvest date: Daviness - 10/9/24; Simpson - 10/11/24; Calloway - 9/19/24; Caldwell - 9/18/24; Woodford - 9/22/24; Fayette - 10/7/2024; Late Planted Caldwell - 10/24/24; Late Fayette - delayed harvest/freeze damage.

Lodging scale: 1 = no lodging, 5 = 100% lodging.

Late planted trial data highly variable - do not use for variety selection.

Table 6. 2024 Kentucky Soybean Variety Trial - Late Maturity (MG 4.6 - 5.2).

Variety	MG	Herbicide Technologies	State Average*		Daviness	Simpson	Calloway	Caldwell	Woodford	Fayette	Late Planted	Protein	Oil	Height	Maturity Date	Lodging*
			2024	2023-24							Caldwell					
			Yield (bu/a)												%	
HS 48F40	4.6	XTFlex	63.6		80.5	69.7	60.7	59.0	60.5	51.3	38.9	38.4	20.7	38	27	1.7
PIONEER P49Z02E	4.9	Enlist E3	63.1		82.0	69.7	58.4	48.7	64.9	55.2	34.8	39.2	20.4	34	27	1.4
Dyna-Gro S48XF35	4.8	XTFlex	62.5		91.6	74.8	56.0	47.0	56.7	48.8	42.9	39.3	20.7	34	26	1.3
Integra XF4875S	4.8	XTFlex/STS	62.4		89.0	67.5	51.9	50.4	63.3	52.4	42.8	38.7	20.6	38	27	1.7
NUTECH 49N05E	4.9	E3	62.4		92.0	72.1	53.2	39.4	62.2	55.3	36.9	38.8	21.1	38	26	1.6
Innvictis A4862XF	4.8	XTFlex	61.9	69.9	71.5	62.4	60.9	57.0	64.3	55.1	40.8	38.7	20.6	37	25	1.7
PIONEER P48A14E	4.8	Enlist E3	61.8	70.8	85.4	67.7	55.2	46.9	60.8	54.9	32.2	38.5	21.0	38	25	1.7
Revere 47-F77	4.7	XTFlex/STS	61.7		82.0	69.6	54.9	50.6	62.2	51.0	37.7	38.6	20.7	40	25	1.9
NUTECH 47N04E	4.7	E3	61.6	72.6	80.6	66.8	51.3	59.1	59.1	52.7	30.8	39.2	20.8	37	25	1.6
Revere 49-F36	4.9	XTFlex	61.6		84.3	67.4	54.8	54.1	60.2	48.8	44.3	39.5	20.6	41	27	1.7
HS 46F40	4.8	Enlist	60.6		79.2	64.9	58.3	54.4	56.3	50.7	38.1	38.8	21.1	37	26	1.6
Revere 4826XFS	4.8	XTFlex	60.3	72.0	89.5	70.6	51.5	44.3	60.6	45.6	40.7	40.3	21.3	36	24	1.3
Golden Harvest GH5253E3	5.2	E3	60.3		76.8	66.7	57.7	49.1	58.9	52.8	37.2	39.7	21.4	35	25	1.8
ASGROW AG46XF3	4.6	XF/SR	60.3	69.4	84.3	72.4	53.2	47.9	57.5	46.7	39.3	39.3	21.0	37	24	1.4
ASGROW AG49XF4	4.9	XF/SR	60.3	69.9	80.6	65.2	53.7	48.0	60.0	54.0	34.4	38.3	20.9	35	25	1.7
ARMOR 46-F15S	4.6	XTFlex/STS	60.2		76.7	65.9	59.1	51.9	59.3	48.7	32.6	39.4	21.2	40	26	1.5
ARMOR 48-E95	4.8	Enlist/E3	59.9		76.6	69.6	53.7	47.2	58.9	53.1	36.1	38.9	22.2	36	25	1.7
Golden Harvest GH4775E3S	4.7	E3/STS	59.7		87.6	64.5	54.3	46.3	56.7	48.7	37.3	39.2	21.7	35	24	1.6
ASGROW AG48XF3	4.8	XF/SR	59.7	69.3	85.6	70.0	50.4	43.1	60.0	48.8	35.8	39.1	20.4	39	26	1.4
Dyna-Gro S47XF23S	4.7	XTFlex	59.6	68.9	81.9	70.3	52.2	44.5	59.9	49.1	33.4	38.8	21.0	37	24	1.4
DM 46F54S	4.6	XTFlex	59.6		84.9	66.3	53.3	48.1	52.5	52.7	34.3	38.6	21.4	35	23	2.0
Xitavo XO 4894E	4.8	Enlist E3	59.5	69.4	80.0	68.1	47.0	51.5	58.4	52.0	38.0	40.2	21.2	37	23	1.7
STINE 46EG92	4.6	E3, STS	59.4		78.5	69.6	50.1	50.1	58.1	50.1	29.8	40.2	22.2	35	24	1.9
Golden Harvest GH4944XFS	4.9	XTFlex/STS	59.3		88.8	65.7	47.9	44.7	58.8	49.8	31.6	39.3	20.5	33	25	1.3
DM 48F53	4.8	XTFlex	59.0		86.3	58.9	49.1	46.1	63.9	49.9	42.5	36.8	21.7	33	25	1.7
NUTECH 47N11BE	4.7	E3	59.0		66.4	60.2	61.5	50.0	59.3	56.5	41.9	39.4	21.4	36	24	2.3
USG 7463XF	4.6	XTFlex	58.9		85.5	65.9	51.6	49.0	56.7	44.7	36.7	38.6	21.0	38	23	1.4

continued

Table 6. (continued)

Variety	MG	Herbicide Technologies	State Average*		DavieSS	Simpson	Calloway	Caldwell	Woodford	Fayette	Late Planted	Protein	Oil	Height	Maturity Date	Lodging*
			2024	2023-24							Caldwell					
			Yield (bu/a)													
Integra XF4634S	4.6	XTFlex/STS	58.9		77.2	66.0	53.9	48.0	57.7	50.7	33.8	38.3	20.8	40	26	1.4
ASGROW AG47XF5	4.7	XF/SR	58.3		82.2	67.7	50.0	43.7	62.3	43.7	37.1	38.8	21.4	38	24	1.3
PB 4726 E3 S	4.7	E3, STS	58.2		69.5	58.8	56.6	49.1	61.7	53.7	31.7	39.0	21.6	35	25	1.6
Golden Harvest GH4864XFS	4.8	XTFlex/STS	58.2		78.5	70.3	53.4	44.4	52.8	49.8	34.0	39.9	21.3	37	25	1.7
Innqvictis A4664XF	4.6	XTFlex	58.1		63.0	62.8	57.2	53.2	57.3	55.3	33.8	38.4	21.7	34	22	2.1
Innqvictis A4924XF	4.9	XTFlex	57.9		67.6	69.4	54.8	44.6	59.0	52.2	37.5	39.3	21.5	33	25	1.8
HS 48E40	4.8	XTFlex	57.9		80.7	58.2	52.0	46.2	59.9	50.3	34.4	38.7	21.6	34	23	1.5
Fortus 4655ES	4.6	E3, STS	57.8		73.8	69.2	51.5	43.7	56.5	52.5	30.3	39.9	21.7	36	24	1.7
PB 4624 E3 S	4.6	E3, STS	57.8		75.4	65.5	54.6	48.3	53.3	50.0	35.0	40.2	22.1	34	24	1.9
ARMOR 46-E75S	4.6	Enlist/E3/STS	57.4		73.9	70.4	54.0	44.4	51.0	50.6	34.5	39.9	22.1	32	24	1.4
Golden Harvest GH4995E3S	4.9	E3/STS	57.3		74.2	64.8	58.0	42.8	53.6	50.2	33.4	39.0	21.9	31	26	1.4
APEX AE4640S	4.6	E3, STS	56.9		71.8	66.0	59.5	43.0	52.0	49.0	35.9	40.7	22.3	32	24	1.9
USG 7474XFS	4.7	XTFlex/STS	56.4	69.6	79.8	61.7	47.3	44.5	54.5	50.3	34.9	40.3	20.4	31	24	1.5
Innqvictis B4904E	4.9	Enlist E3	56.3		64.0	65.3	59.4	44.6	56.5	48.2	29.1	39.2	21.9	33	26	1.6
STINE 46EE20	4.6	E3	55.7		78.2	58.6	49.2	47.7	52.9	47.6	33.0	40.5	22.2	33	24	1.5
USG 7495XFS	4.9	XTFlex/STS	54.2		78.7	56.8	45.9	35.9	55.5	52.7	34.2	38.1	21.2	36	27	1.9
Innqvictis A4814XF	4.8	XTFlex	53.4		69.6	69.9	44.9	37.8	53.5	44.7	34.4	39.4	21.3	32	25	1.7
STINE 48EE20	4.8	E3	51.8	64.0	68.5	50.3	44.7	39.3	60.7	47.4	32.0	39.8	21.2	38	25	1.9
Xitavo XO 4772E	4.7	Enlist E3	51.0		58.0	57.7	47.8	37.1	55.2	50.3	33.8	40.6	21.1	34	26	1.8
Average			58.8	69.4	78.6	65.5	53.0	46.9	58.3	50.7	35.5	39.2	21.3	36	25	1.6
C.V. (%)			8.4	7.5	8.4	8.0	7.8	10.4	8.6	5.6	15.2					
LSD (0.10)			6.6	3.4	12.7	10.1	8.0	9.4	9.7	5.5	10.4					

* Summary of six full season trials (DavieSS, Simpson, Calloway, Caldwell, Woodford and Fayette). Late planted trial not included in state average.

Protein and Oil values (NIR) from three reps at Woodford County location.

Height and maturity date measured at Woodford County location (three reps).

Planting date: DavieSS - 4/24/24; Simpson - 4/25/24; Calloway - 4/26/24; Caldwell - 4/27/24; Woodford - 4/29/24; Fayette - 5/1/24; Late Caldwell 6/24/24; Late Fayette - 6/27/24.

Harvest date: DavieSS - 10/9/24; Simpson - 10/11/24; Calloway - 9/19/24; Caldwell - 9/18/24; Woodford - 10/6/24; Fayette - 10/7/2024; Late Planted Caldwell - 10/24/24; Late Fayette - delayed harvest/freeze damage.

Lodging scale: 1 = no lodging, 5 = 100% lodging.

Late planted trial data highly variable - do not use for variety selection.

2024 Kentucky Soybean Variety Performance Trial

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