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University of Kentucky
College of Agriculture,
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Agricultural Experiment Station

2022 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 2022, forty soybean trials were planted at the eight test locations across Kentucky (Figure 1). Test locations, planting, and harvest dates are shown in Table 1.

Tables

Methods

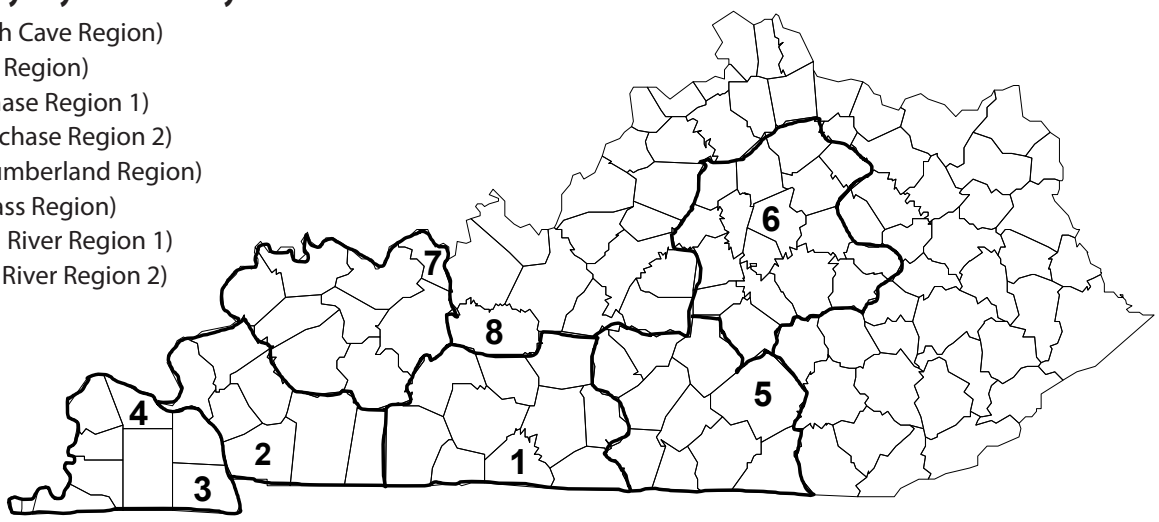
All trials were planted in a randomized complete block design by maturity group with a no-till plot planter (Haldrup SNT-25, 6-rows – Haldrup USA). The trials (Tables 4-8) had three replications (plots) for each variety. The individual plots were 20 feet long and six rows wide with 15 inches between rows. Four to five viable seeds per foot of row were planted at a depth of 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 ft.

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.

Yield is reported in bushels (60 pounds) per acre adjusted to 13 percent moisture. An electronic weight and moisture monitor (HarvestMaster HM800 GrainGage system, Juniper Systems, Inc., USA) located on the combine was used to re-

Figure 1. 2022 Kentucky Soybean Variety Performance Trials test sites.

1. Allen County (Mammoth Cave Region)
2. Trigg County (Pennyrile Region)
3. Calloway County (Purchase Region 1)
4. McCracken County (Purchase Region 2)
5. Pulaski County (Lake Cumberland Region)
6. Fayette County (Bluegrass Region)
7. Hancock County (Green River Region 1)
8. Grayson County (Green River Region 2)



cord 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 percent down; 4 = all plants over considerably or 50 percent down; 5 = over 50 percent to all plants down.

Maturity date. Maturity dates were recorded at the Fayette County location. A variety was considered mature when 99 percent 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 Fayette County location, just prior to harvest.

Seed samples. Protein, Oil – whole seed. Variety protein and oil concentrations are reported on the basis of 13 percent moisture. The samples were collected from 3 replicated plots at the Trigg Co. location and were analyzed with a NIR spectrophotometer (DA 7250, Perten Instruments, Sweden). The data were statistically analyzed with Agrobase GEN II statistical software.

Interpretation

An important step in profitable soybean production is selecting the best varieties for each management system. The Kentucky Soybean Variety Performance Trials are conducted to provide information useful in making this selection.

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 several 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 at several locations in the state is the best indicator of its production potential. The data presented in Tables 4-8 list the yields from individual locations, as well as the state average from all trial locations for 2022 and 2021-22. It is recommended to use the average state summary data which provides 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-yielding double-crop. The full-season environment that maximizes yield is a better indicator of performance than late-planted soybeans that have reduced yields. The data from two years, analyzed across years and locations, predict performance of a variety more accurately than a single, full-season, or double-crop test.

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 4-8 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

March had above normal temperatures and below normal precipitation. A late season winter storm brought snow accumulation throughout much of the state. April had slightly cooler temperatures and slightly higher levels of precipitation. The month of May had much warmer temperatures than average and normal levels of precipitation. June was also warmer, but drier than normal. July was warmer than normal and saw significant rainfall near the end of the month. August had normal temperature and precipitation. September was dry and had near normal temperatures. The late summer dry conditions limited the seed filling period across much of the state. October was very dry and cooler, which favored timely harvest of soybeans. Some later maturing soybeans were affected by freezing temperatures in mid-October which interrupted late seed filling and dry down. Detailed weather data for all test locations are presented in Table 3.

Special Notes

In 2022, the test site in Grayson County was subject to deer damage. Significant defoliation was observed near a tree line. The test site in McCracken County was unfortunately exposed to Dicamba, drift which affected the variety trial. Early and mid-maturity groups seemed more affected than later maturing varieties. The data were not included in the yield data analysis in the State Summary column. There were emergence issues at the Pulaski Co site due to extreme wet conditions and plots with noted unsatisfactory stands were deleted from the data set.

Soybean Production Information

As of November 9, 2022, soybean production for Kentucky was forecast at 98.9 million bushels, down 4% from 2021. Yield was estimated at 51 bushels per acre, down 5.0 bushels from a year ago. Acreage for harvest as beans was estimated at 1.94 million acres, up 100,000 acres from the previous year. (Source: October Crop Production, Kentucky – News Release USDA, NASS, Kentucky Field Office, November 9, 2022).

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, Jason Robertson, and the Murray State farm crew.

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Table 1. Locations, planting, and harvest dates for the 2022 Kentucky Soybean Variety Performance Tests.

REGION	TEST SITE	COLLABORATORS	PLANTING DATES	HARVEST DATES
Bluegrass	Fayette County	Matt Peak, farm manager, University of Kentucky Research Farm	5/2/2022	MG 2 & 3: 9/26; MG 4 Early & Late, MG 5: 10/19
Green River	Hancock County	Joe Hagman, soybean producer, and Evan Tate, UK Ext. Ag. & Nat Resources agent	5/12/2022	MG 2 & 3: 10/4; MG 4 Early & Late, MG 5: 10/14
	Grayson County	Darell Roof, soybean producer, and Whitney Carman, UK Ext. Ag. & Nat Resources agent	4/28/2022	MG 2 & 3: 9/20; MG 4 Early & Late, MG 5: 10/5
Lake Cumberland	Pulaski County	Chris Pierce, soybean producer, and Trent Adkins, UK Ext. Ag. & Nat Resources agent	5/5/2022	MG 2 & 3: 10/7; MG 4 Early & Late, MG 5: 10/7
Mammoth Cave	Allen County	Rex Shaw, soybean producer and Adam Huber, UK Ext. Ag. & Nat Resources agent	5/13/2022	MG 2 & 3: 10/14; MG 4 Early & Late, MG5: 10/18
Pennyrile	Trigg County	Barry Alexander, soybean producer, and Sam Cofield, UK Ext. Ag. & Nat Resources agent	4/29/2022	MG 2 & 3: 9/21; MG 4 Early & Late, MG 5: 10/6
Purchase	Calloway County	Dr. Megan Taylor, assistant professor, Agronomy, Murray State University	5/10/2022	MG 2 & 3: 9/22; MG 4 Early & Late, MG 5: 10/11
	McCracken County	Josh Goodwin, soybean producer, and Samantha Anderson, UK Ext. Ag. & Nat Resources agent	4/29/2022	MG 2 & 3: 9/22; MG 4 Early & Late, MG 5: 10/10

Table 2. 2022 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	*Phytophtora soja*[D]		Sudden death syndrome		
				Resistance gene	Field tolerance			
AgriGold - agrigold.com								
AGRIGOLD G4094XF	4.0	XF	PI88788	1a	MT	MT		AgriShield Max, Saltro
AGRIGOLD G4144XF	4.1	XF	PI88788	1a	MR	MT		AgriShield Max, Saltro
AGRIGOLD G4350XF	4.3	XF	PI88788	1c	MS	MR		AgriShield Max, Saltro
AGRIGOLD G4151E3	4.1	E3	PI88788	NG	MS	MS		AgriShield Max, Saltro
BASF - agriculture.basf.us								
XO 3752E	3.7	Enlist	3, 14	1k	MR	MR		ObviousPlus, Poncho, Votivo, Ilevo, Relenya
XO 3922E	3.9	Enlist	3, 14	1k	MR	MS		ObviousPlus, Poncho, Votivo, Ilevo, Relenya
XO 4132E	4.1	Enlist	3, 14	NG	MS	MR		ObviousPlus, Poncho, Votivo, Ilevo, Relenya
XO 4522E	4.5	Enlist	3, 14	NG	MS	MR		ObviousPlus, Poncho, Votivo, Ilevo, Relenya
XO 4772E	4.7	Enlist	3, 14	NG	MR	MS		ObviousPlus, Poncho, Votivo, Ilevo, Relenya
Bayer Asgrow - cropscience.bayer.com								
ASGROW AG30XF2	3.0	XF	R3	1c	5	MR		Acceleron F&I
ASGROW AG38XF1	3.8	XF	R3	1c	5	MS		Acceleron F&I
ASGROW AG38XF3	3.8	XF	R3	1c	5	MS		Acceleron F&I
ASGROW AG40XF1	4.0	XF/SR	R3	1c	5	MS		Acceleron F&I
ASGROW AG45XF3	4.5	XF/SR	R3	1c	5	MR		Acceleron F&I
ASGROW AG46XF3	4.6	XF/SR	R3	1c	5	MR		Acceleron F&I
ASGROW AG47XF3	4.7	XF/SR	R3	1a	4	MR		Acceleron F&I
ASGROW AG48XF3	4.8	XF/SR	R3	1c	5	MR		Acceleron F&I
ASGROW AG49XF3	4.9	XF	R3	1c	5	MR		Acceleron F&I + Ilevo
Brevant™ Seeds - brevant.com								
B392EE	3.9	Enlist E3	PI88788	1k	MR	MR		Lumigen, Luminesa, ILeVo
B402EE	4.0	Enlist E3	PI88788	NA	MS	MR		Lumigen, Luminesa, ILeVo
B421EE	4.2	Enlist E3	PI88788	NA	MS	MR		Lumigen, Luminesa, ILeVo
B452EE	4.5	Enlist E3	PI88788	NA	MR	MR		Lumigen, Luminesa, ILeVo
B472EE	4.7	Enlist E3	PI88788	NA	MR	MR		Lumigen, Luminesa, ILeVo
Channel Seed - channel.com								
CHANNEL 3521RXF	3.5	XTFlex	R	Rps1c	5	5		Acceleron Fungicide + Insecticide + Illevo
CHANNEL 3322RXF	3.3	XTFlex	R	None	6	4		Acceleron Fungicide + Insecticide + Illevo
CHANNEL 3823RXF	3.8	XTFlex	R	Rps1c	5	4		Acceleron Fungicide + Insecticide + Illevo
CHANNEL 4223RXF	4.2	XTFlex	R	Rps1c	5	3		Acceleron Fungicide + Insecticide + Illevo
Dyna-Gro Seed - nutrienagsolutions.com								
DYNA-GRO S38XF22S	3.8	XTFlex/STS	MR3	1a	MT	MR	FLS - MR	Equity VIP, Saltro, Vayantis
DYNA-GRO S3961STS	3.9	CONV	R3	None	MT	MR		Equity VIP, Saltro, Vayantis
DYNA-GRO S39EN19	3.9	Enlist E3	R3, MR14	None	MT	MR	FLS - MR	Equity VIP, Saltro, Vayantis
DYNA-GRO S39XF41	3.9	XTFlex/STS	MR3	None	MT	MS	FLS - MR	Equity VIP, Saltro, Vayantis
DYNA-GRO S4122STS	4.1	CONV	MR3	None	MT	MR	FLS - R	Equity VIP, Saltro, Vayantis
DYNA-GRO S41EN72	4.1	Enlist E3	R3, MR14	None	MT	MR-MS	FLS - MR	Equity VIP, Saltro, Vayantis
DYNA-GRO S42XF93S	4.2	XTFlex/STS	MR3	1a	MT	MR	FLS - R	Equity VIP, Saltro, Vayantis
DYNA-GRO S45ES10	4.5	Enlist E3/STS	R3, MR14	None	MT	MR-MS	FLS - R	Equity VIP, Saltro, Vayantis
DYNA-GRO S45XF02	4.5	XTFlex/STS	MR3	1k	MT	MR	FLS - MR	Equity VIP, Saltro, Vayantis

Table 2. (continued)

VARIETY NAME	Maturity group	Herbicide technologies[B]	Disease resistance traits[C]				Other[C,E]	Seed treatment(s)
			Soybean cyst nematode resistance	*Phytophtora soja*[D]		Sudden death syndrome		
				Resistance gene	Field tolerance			
DYNA-GRO S46ES91	4.6	Enlist E3/STS	R3, MR14	None	MT	MR	FLS - MR	Equity VIP, Saltro, Vayantis
DYNA-GRO S46XF31S	4.6	XTFlex/STS	R3, MR14	1c	MT	MR-MS	FLS - MS	Equity VIP, Saltro, Vayantis
DYNA-GRO S4751STS	4.7	CONV	S	None	MT	MR	FLS - R	Equity VIP, Saltro, Vayantis
DYNA-GRO S47XF23S	4.7	XTFlex/STS	R3	1c	MT	MR-MS	FLS - MS	Equity VIP, Saltro, Vayantis
DYNA-GRO S48EN73	4.8	Enlist E3	R3	None	MT	MR-MS	FLS - MS	Equity VIP, Saltro, Vayantis
Farmers Business Network - www.fbn.com								
PALOMA PL2E440	4.4	E3	PI88788	Rps1a/Rps1t	7/10	6/10		FBN Custom Blend
PALOMA PL2E472	4.7	E3	PI88788					FBN Custom Blend
PALOMA PL2E502	5.0	E3	PI88788					FBN Custom Blend
Golden Harvest - goldenharvestseeds.com								
GH 3762E3S	3.7	E3/STS	MR3	Rps 1c	MT	T	FLS -T	Cruiser Maxx, Vibrance, Saltro
GH 3902E3S	3.9	E3/STS	R3	Rps 1c	MT	T	FLS -T	Cruiser Maxx, Vibrance, Saltro
GH 4343XFS	4.3	XTFlex/STS	MR3	Rps 1c	T	MT	FLS - MS	Cruiser Maxx, Vibrance, Saltro
GH 4433E3S	4.4	E3/STS	MR3, MR14	Rps 1c	MT	MT	FLS - T	Cruiser Maxx, Vibrance, Saltro
GH 4882XFS	4.8	XTFlex/STS	MR3	Rps 1k	MT	MT	FLS -T	Cruiser Maxx, Vibrance, Saltro
GROWMARK, INC - FS HiSoy Soybean Brand - growmarkfs.com								
HS 28F20	2.8	Xtend	R3	NONE	MT	MR	STEM CANKER - R	Acceleron I&F, Saltro
HS 35E10	3.5	E3/Enlist	R3, MR14	1k	MT	MR	STEM CANKER - R	Acceleron I&F, Saltro
HS 35F20	3.5	Xtend	R3, MR14	NONE	MT	MR	STEM CANKER - R	Acceleron I&F, Saltro
HS 37E10	3.7	E3/Enlist	R3, MR14	1k	MT	MR	STEM CANKER - R	Acceleron I&F, Saltro
HS 38F20	3.8	Xtend	R3, MR14	NONE	MT	MR	STEM CANKER - R	Acceleron I&F, Saltro
HS 40F20	4.0	Xtend	R3	1c	MT	MR	STEM CANKER - R	Acceleron I&F, Saltro
HS 41E20	4.2	E3/Enlist	R3	NONE	MT	MR	STEM CANKER - R	Acceleron I&F, Saltro
HS 42E10	4.2	E3/Enlist	R3, MR14	NONE	MT	MR	STEM CANKER - R	Acceleron I&F, Saltro
HS 44F20	4.4	Xtend	R3, MR14	1c	MT	MR	STEM CANKER - R	Acceleron I&F, Saltro
HS 48E10	4.8	E3/Enlist	R3, MR14	NONE	MT	MR	STEM CANKER - R	Acceleron I&F, Saltro
HS 48F20	4.8	Xtend	R3, MR14	1a	MT	MR	STEM CANKER - R	Acceleron I&F, Saltro
Local Seed Company - localseed.com								
Revere 3908XFS	3.9	XTFlex/STS						Radius Premium
Revere 4128XFS	4.1	XTFlex/STS						Radius Premium
Revere 3908XFS	4.3	Xtend/STS						Radius Premium
Innotech 4324E3	4.3	Enlist E3						Radius Premium
Revere 4415XF	4.4	XTFlex						Radius Premium
Revere 4526XFS	4.5	XTFlex/STS						Radius Premium
Revere 4606XFS	4.6	XTFlex/STS						Radius Premium
Revere 4727XFS	4.7	XTFlex/STS						Radius Premium
Revere 4795XS	4.7	Xtend/STS						Radius Premium
Innotech 4737E3	4.7	Enlist E3						Radius Premium
Revere 4806XS	4.8	Xtend/STS						Radius Premium
Revere 4826XF	4.8	XTFlex						Radius Premium
Revere 4925XFS	4.9	XTFlex/STS						Radius Premium
Revere 5029XF	5.0	XTFlex						Radius Premium

Table 2. (continued)

VARIETY NAME	Maturity group	Herbicide technologies[B]	Disease resistance traits[C]				Other[C,E]	Seed treatment(s)
			Soybean cyst nematode resistance	*Phytophtora soja*[D]		Sudden death syndrome		
				Resistance gene	Field tolerance			
NK Seeds - www.syngenta-us.com								
NK37-V4E3S	3.7	Enlist	R	Rps1c	good	good		Cruiser Extreme
NK43-Y9XFS	4.3	XTFlex	R	Rps1c	good	good		Cruiser Maxx + Vibrance + Saltro
NuTech Seed - nutechseed.com								
NUTECH 34N02E	3.4	E3	PEKING	1k	MT	MT		Luminesa, Gaucho, Ilevo
NUTECH 35N03E	3.5	E3	PI88788	1k	MT	MT		Luminesa, Gaucho, Ilevo
NUTECH 37N01E	3.7	E3	PI88788		MT	MT		Luminesa, Gaucho, Ilevo
NUTECH 39N04E	3.9	E3	PI88788		MT	MT		Luminesa, Gaucho, Ilevo
NUTECH 39N07E	3.9	E3	PI88788	1k	MT	MT		Luminesa, Gaucho, Ilevo
NUTECH 40N02E	4.0	E3	PI88788		MT	MT		Luminesa, Gaucho, Ilevo
NUTECH 43N04E	4.3	E3	PI88788		MT	MT		Luminesa, Gaucho, Ilevo
NUTECH 45N09E	4.5	E3	PI88788		MT	MT		Luminesa, Gaucho, Ilevo
NUTECH 47N04E	4.7	E3	PI88788		MT	MT		Luminesa, Gaucho, Ilevo
Partners Brand Seed - partnersbrandseed.com								
PB 3323 E3 S	3.3	E3, STS	R3, MR14	Rps 1k	MR	MR	FLS - MR	Alert 2020, Nvincible
PB 3923 E3 S	3.9	E3, STS	R3, MR14	Rps 1c	MR	MT	FLS - MR	Alert 2020, Nvincible
PB 423 E3 STSn	4.2	E3, STS	R3, MR14	NA	MR	MR	FLS - MR	Alert 2020, Nvincible
Pioneer Hi-Bred International, Inc. - pioneer.com								
PIONEER P42A84E	4.2	ENLIST	3,14		MT	T	STEM CANKER - R	LUMIGEN
PIONEER P45A79E	4.5	ENLIST	3, 14		T	MT	STEM CANKER - R	LUMIGEN
PIONEER P48A14E	4.8	ENLIST	3,14		MT	T	STEM CANKER - R	LUMIGEN
Seed Consultants - seedconsultants.com								
Seed Consultants SC 7372ETM	3.7	Enlist	PI88788	NG	5	5		Lumigen, Ilevo
Seed Consultants SC 7381ETM	3.8	Enlist	PI88788	NG	7	5		Lumigen, Ilevo
Seed Consultants SC 7412ETM	4.2	Enlist	PI88788	NG	4	6		Lumigen, Ilevo
Seed Consultants SC 7421ETM	4.2	Enlist	PI88788	1c	4	5		Lumigen, Ilevo
Seed Consultants SC 7462ETM	4.6	Enlist	PI88788	NG	6	6		Lumigen, Ilevo
Stewart Seeds - stewartseeds.com								
STEWART 3531XF	3.5	XTFlex	PI88788	Rps1c	MR	MS		Acceleron Standard
STEWART 3731XF	3.7	XTFlex	PI88788	Rps1c	MR	MS		Acceleron Standard
STEWART 3843XF	3.8	XTFlex	PI88788	Rps1c	MR	MR		Acceleron Standard
STEWART 4053XF	4.0	XTFlex	PI88788	Rps1c	MR	MR		Acceleron Standard
STEWART 4353XF	4.3	XTFlex	PI88788	Rps1c	MR	MR		Acceleron Standard
STEWART 4533XF	4.5	XTFlex	PI88788	Rps1c	MR	MR		Acceleron Standard
STEWART 4730XF	4.7	XTFlex	PI88788	Rps1c	MR	MR		Acceleron Standard
Stine Seed Company - stineseed.com								
STINE 36EE12	3.6	E3/Pub	R		MT/R			Cruiser Maxx
STINE 39EA02	3.9	E3/Pub	R		MT/R			Cruiser Maxx
STINE 39EC22	3.9	E3/Pub	R		T/MT			Cruiser Maxx
STINE 41EB32	4.1	E3/Pub	R		T			Cruiser Maxx
STINE 41EE62	4.1	E3/Pub	R		T/MT			Cruiser Maxx
STINE 44EC20	4.4	E3/Pub	R		MT/R			Cruiser Maxx

Table 2. (continued)

VARIETY NAME	Maturity group	Herbicide technologies[B]	Disease resistance traits[C]				Other[C,E]	Seed treatment(s)
			Soybean cyst nematode resistance	*Phytophtora soja*[D]		Sudden death syndrome		
				Resistance gene	Field tolerance			
STINE 46EE20	4.6	E3/Pub	R		T			Cruiser Maxx
STINE 47EE02	4.7	E3/Pub	R		T			Cruiser Maxx
STINE 48EE20	4.8	E3/Pub	R		T			Cruiser Maxx
STINE 49EE02	4.9	E3/Pub	R		T			Cruiser Maxx
STINE 44EE20	4.9	E3/Pub	S		T			Cruiser Maxx
STINE 50EE12	5.0	E3/Pub	S		T			Cruiser Maxx
UniSouth Genetics, Inc. - usgseed.com								
USG 7293XFS	2.9	XTFlex/STS	R3, MR14		MR	MR	SC-R	Carboxin, Metalaxyl, Imidacloprid, Ipconazole
USG 7392XFS	3.9	XTFlex/STS	HR3, MS14	NG	MR	MR	SC-R	Carboxin, Metalaxyl, Imidacloprid, Ipconazole
USG 7461XFS	4.6	XTFlex/STS	R3, MR14	Rps1c	MS	MR	SC-R, EXC	Carboxin, Metalaxyl, Imidacloprid, Ipconazole
USG 7463XFS	4.6	XTFlex/STS	S	Rps1c	MR	MR	Cercospora - MR, FLS - MR, SC-R	Carboxin, Metalaxyl, Imidacloprid, Ipconazole
University of Kentucky								
ESSEX (check)	5.0	CONV-PUB						none
PENNYRILE (check)	4.7	CONV-PUB						none
University of Missouri								
UMO S19-3530RY	4.3	RR2Y	S				IC, Excluder	Warden
UMO S17-2193C	4.7	Conv	S			S	SC, Excluder	Warden
UMO S16-13165C	4.7	Conv	R	Rps1c	R		BSR, SC, Excluder	Warden
UMO S17-2066C	4.9	Conv	S			S		Warden
UMO S18-6097C	5.0	Conv	R				IC, Excluder	Warden
UMO S17-2509C	5.0	Conv	S					Warden
UMO S18-6328C	5.1	Conv	R					Warden
UMO S16-9478C	5.2	Conv	R				BSR, SC, Excluder	Warden
UMO S16-15170C	5.3	Conv	R	Rps1c	R	R	BSR, SC, Excluder	Warden
Winfield United - www.winfieldunited.com								
ARMOR 39-F73	3.9	Xtend FleX	PI88.788	NG	M	MR		Warden CX
ARMOR 46-F76	4.6	Xtend FleX	PI88.788	Rps 1c	MS	MR		Warden CX
ARMOR 39-E75	3.9	Enlist/E3	PI88.788	NG	MR	MR		Warden CX
ARMOR 47-E03	4.7	Enlist/E3	PI88.788	NG	M	M		Warden CX

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

[B] Conv/CONV: conventional soybean variety; Extend/Xtend/X/XT: dicamba-tolerant soybean variety; E3/Enlist: variety tolerant to Enlist Duo™ herbicide; PUB: public release variety; RR1: first generation Roundup Ready (glyphosate) soybean variety (original trait, introduced in 1996); RR2: second generation Roundup Ready 2 Yield soybean variety (introduced in 2009) ; SR/STS: sulfonylurea-tolerant soybean variety; XF/XTFlex/Xtend Flex/XTFlex: 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 *Phytophtora 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 trial locations.

Location		Allen County	Calloway County	Fayette County	Grayson County
Region		Mammoth Cave	Purchase	Bluegrass	Lincoln Trail
GPS coordinates		36°46'35.5"N 86°18'29.4"W	36°36'54.3"N 88°21'03.4"W	38°07'26.1"N 84°29'39.1"W	37°24'59.5"N 86°21'43.4"W
Ag. practice		No-till	No-till	No-till	Minimal tillage
Previous crop		Corn	Wheat cover crop	Corn	Soybean
Planting date		5/13/2022	5/10/2022	5/2/2022	4/28/2022
SCN (eggs/cup of soil, 250 cm3)		0	250	0	125
Precipitation (in) & temperature °F (average - max/min)	**April**	5.8 (56.8 - 83.1/31.6)	7.1 (56.6 - 82.2/32.1)	3.7 (53.6 - 81.7/28.2)	3.9 (53.7 - 81.6/27.4)
	May	2.8 (68.8 - 87.9/48.5)	4.1 (68.8 - 87.7/46.5)	4.0 (67.1 - 85.9/48.0)	2.4 (66.8 - 87.3/45.0)
	June	3.3 (75.6 - 97.4/51.9)	1.7 (75.6 - 97.8/52.8)	1.7 (74.6 - 95.1/54.7)	1.7 (72.9 - 94.2/48.8)
	July	7.0 (80.0 - 99.8/63.9)	3.7 (71.1 - 98.3/63.1)	7.3 (77.4 - 95.2/62.7)	6.4 (77.9 - 95.0/58.9)
	August	4.1 (76.1 - 91.2/57.0)	4.9 (77.3 - 91.9/59.1)	4.3 (74.6 - 89.4/58.8)	5.8 (75.3 - 91.1/54.8)
	September	1.7 (69.5 - 94.4/37.0)	1.5 (70.6 - 98.2/40.9)	0.7 (67.8 - 91.5/41.0)	2.1 (67.8 - 93.1/37.9)
	October	2.1 (56.9 - 80.7/28.4)	1.3 (58.4 - 83.1/27.5)	1.6 (55.4 - 77.6/31.5)	1.1 (54.5 - 79.3/24.2)
Soil Properties:					
Soil color (field observations)		brown red	brown red	black	brown red
Soil type (USDA soil survey)		Crider silt loam	Grenada silt loam	Lanton silty clay loam	Sadler silt loam
Slope (USDA soil survey)		2 to 6%	0 to 2%	0%	2 to 6%
Soil texture		silt loam	silt loam	silty clay loam	silt loam
Sand (%)		4.00	5.60	16.44	7.60
Silt (%)		74.70	77.40	56.46	75.6
Clay (%)		21.30	17.00	27.10	16.80
CEC (meq/100g)		8.24	9.79	26.74	9.04
K (meq/100g)		0.43	0.35	0.34	0.15
Ca (meq/100g)		3.33	6.29	24.80	12.30
Mg (meq/100g)		0.37	1.09	1.81	0.53
Na (meq/100g)		0.05	0.08	0.06	0.07
Soil water pH		4.94	5.82	6.10	7.09
Fertility:					
Macronutrients (lbs/ac)					
P		218	99	410	33
K		327	248	233	104
Ca		1530	2651	9201	4677
Mg		112	289	467	135
Zn		5	6.1	3.7	1.4
B		0.56	0.48	1.16	0.16
Mn		512	572	42	538
C & N					
Total_C (%)		0.822	0.927	2.126	1.014
Total_N (%)		0.083	0.094	0.193	0.093
Ratio C/N		9.90	9.86	11.02	10.90
Calculated organic matter content (OM= total C/1.72, %) 0-12in		0.478	0.539	1.236	0.590

Table 3. (continued)

Location		Hancock County	McCracken County	Pulaski County	Trigg County
Region		Green River	Pennyrile - 1	Lake Cumberland	Pennyrile - 2
GPS coordinates		37°53'06.8"N 86°41'08.1"W	36°57'25.2"N 88°36'18.2"W	37°07'24.7"N 84°49'12.7"W	36°56'35.7"N 87°43'50.0"W
Ag. practice		No-till	No-till	No-till	Minimal tillage
Previous crop		Corn	Soybean	Soybean	Corn, wheat cover crop
Planting date		5/12/2022	5/11/2022	5/5/2022	4/29&30/2022
SCN (eggs/cup of soil, 250 cm3)		0	750	0	750
Precipitation (in) & temperature °F (average - max/min)	**April**	6.1 (54.3 - 82.8/29.5)	5.8 (56.6 - 82.3/32.4)	3.0 (53.6 - 84.1/25.3)	8.1 (55.3 - 80.9/29.4)
	May	3.1 (67.8 - 88.7/45.5)	3.1 (69.1 - 90.3/46.3)	6.0 (66.0 - 87.0/42.2)	3.5 (67.5 - 88.5/42.6)
	June	2.2 (73.8 - 95.8/49.4)	3.9 (75.7 - 97.0/52.0)	2.5 (72.8 - 94.1/47.8)	3.4 (74.4 - 97.1/47.6)
	July	9.1 (78.4 - 97.1/60.0)	4.5 (79.4 - 95.7/61.0)	9.4 (77.0 - 94.9/59.6)	1.3 (80.6 - 100.8/59.1)
	August	5.3 (75.2 - 90.2/56.3)	3.9 (75.9 - 92.5/56.2)	3.2 (73.1 - 90.0/52.6)	3.6 (75.5 - 93.3/54.5)
	September	0.3 (67.8 - 93.9/35.8)	0.4 (69.4 - 97.7/38.3)	1.5 (65.2 - 91.7/33.7)	1.4 (68.5 - 99.1/34.5)
	October	1.3 (55.2 - 80.2/26.7)	1.8 (57.0 - 81.2/24.8)	1.1 (52.9 - 77.4/24.6)	1.1 (56.4 - 83.2/26.9)
Soil Properties:					
Soil color (field observations)		brown red	brown	light brown	brown red
Soil type (USDA soil survey)		Weinbach silt loam	Loring silt loam	Mountview silt loam	Crider silt loam
Slope (USDA soil survey)		0 to 2%	2 to 6%	6 to 12%	2 to 6%
Soil texture		silt loam	silt loam	silt loam	silt loam
Sand (%)		7.00	6.23	9.90	4.00
Silt (%)		72.60	73.70	67.40	77.00
Clay (%)		20.40	20.60	22.70	21.30
CEC (meq/100g)		5.10	11.04	5.35	8.93
K (meq/100g)		0.30	0.35	0.15	0.47
Ca (meq/100g)		3.62	7.77	4.30	7.03
Mg (meq/100g)		0.75	1.14	0.51	0.51
Na (meq/100g)		0.06	0.10	0.04	0.04
Soil water pH		6.26	5.65	6.47	6.25
Fertility:					
Macronutrients (lbs/ac)					
P		40	31	52	68
K		228	255	102	385
Ca		1605	3272	2009	3242
Mg		211	314	152	153
Zn		1.3	1	1.4	2.7
B		0.25	0.52	0.16	0.28
Mn		400	336	192	548
C & N					
Total_C (%)		0.685	0.831	1.097	0.824
Total_N (%)		0.058	0.082	0.096	0.084
Ratio C/N		11.81	10.13	11.43	9.81
Calculated organic matter content (OM= total C/1.72, %) 0-12in		0.398	0.483	0.638	0.479

Table 4. 2022 Kentucky Soybean Variety Trial - Maturity Group II (2.0 - 2.9).

Variety	MG	Herbicide Technologies	State Average*	Calloway	Trigg	Fayette	Hancock	McCracken	Grayson	Pulaski	Allen	Protein	Oil	Height	Maturity Date
			Yield (bu/a)									%	%	(In)	September
HS 28F20	2.8	Xtend	47.7	42.5	43.8	57.4	55.1	36.6	29.4	62.3	54.5	38.1	22.7	35	14
USG 7293XFS	2.9	XTFlex/STS	47.0	38.4	49.3	63.6	44.8	36.6	30.5	57.3	55.7	40.3	21.7	34	14
Average			**47.4**	**40.5**	**46.5**	**60.5**	**50.0**	**36.6**	**30.0**	**59.8**	**55.1**	**39.2**	**22.2**	**34**	**14**
C.V. (%)			6.2	3.3	2.6	7.0	5.7	9.9	12.8	3.3	5.1	0.7	0.6		
LSD (0.10)			2.2	7.6	6.9	24.0	16.1	20.6	21.8	11.0	16.1	1.5	0.8		

* Summary of eight trials - (Calloway, Trigg, Fayette, Hancock, McCracken, Grayson, Pulaski, Allen counties).
Protein and Oil values (NIR) from 3 reps at Trigg County location.
Lodging (%) = 0%
Height and maturity date measured at Fayette Co. location (3 reps).
Planting date: Calloway - 5/10/22; Trigg - 4/29/22; Fayette - 5/2/22; Hancock - 5/12/22; McCracken - 5/11/22; Grayson - 4/28/22; Pulaski - 5/5/22; Allen - 5/13/22.
Harvest Date: Calloway - 9/22/22; Trigg - 9/21/22; Fayette - 9/26/22; Hancock - 10/4/22; McCracken - 9/22/22; Grayson - 9/20/22; Pulaski - 10/7/22; Allen - 10/14/22.

Table 5. 2022 Kentucky Soybean Variety Trial - Maturity Group III (3.0 - 3.9).

Variety	MG	Herbicide Technologies	State Average*		Calloway	Trigg	Fayette	Hancock	McCracken	Grayson	Pulaski	Allen	Protein	Oil	Height	Maturity Date	Lodging*
			2022	2021-22													
			Yield (bu/a)										%	%	(In)	September	
Dyna-Gro S39EN19	3.9	Enlist E3	63.2	70.1	47.2	73.4	63.1	71.8	45.2	51.2	61.1	74.3	39.4	22.0	32	21	1.2
Channel 3823RXF	3.8	XTFlex	62.4		54.2	74.0	56.5	81.3	38.2	52.7	56.4	61.4	37.7	21.8	34	23	1.2
STINE 39EA02	3.9	E3/Pub	62.1		47.6	72.5	62.3	70.7	38.6	48.3	60.5	72.9	38.4	22.4	33	21	1.0
ARMOR 39-E75	3.9	Enlist/E3	61.9	69.4	38.9	68.5	64.2	81.0	40.7	41.2	62.6	76.8	37.5	22.9	29	23	1.3
HS 35E10	3.5	E3/Enlist	61.9		43.4	67.3	56.3	70.1	44.4	58.7	65.2	72.1	38.6	23.7	29	17	1.5
XO 3922E	3.9	Enlist	61.4		47.0	75.4	55.6	76.4	37.9	44.5	62.9	67.8	37.1	23.3	28	22	1.4
Dyna-Gro S3961STS	3.9	CONV	61.1	67.0	46.6	76.1	62.4	71.5	37.8	50.4	64.4	56.0	40.1	20.6	35	22	1.0
USG 7392XFS	3.9	XTFlex/STS	61.0	68.7	46.7	72.1	55.1	76.6	39.4	49.7	60.1	66.3	40.5	21.5	35	23	1.3
NK37-V4E3S	3.7	Enlist	60.6		41.1	64.3	61.4	78.0	42.9	51.5	53.7	74.0	37.2	23.0	37	22	1.8
NUTECH 34N02E	3.4	E3	60.0		50.7	59.3	63.5	69.0	32.2	59.2	46.6	72.1	38.4	23.6	32	17	1.2
PB 3923 E3 S	3.9	E3, STS	60.0		43.0	64.5	59.5	72.1	34.3	50.8	57.8	72.0	36.6	23.4	33	22	1.3
NUTECH 37N01E	3.7	E3	59.7	66.9	44.2	64.1	66.0	72.1	42.2	49.0	60.4	61.9	39.1	22.0	33	22	1.0
NUTECH 39N07E	3.9	E3	59.1		40.4	65.9	59.6	71.4	39.2	52.7	56.6	66.7	37.9	22.1	31	21	1.1
Dyna-Gro S38XF22S	3.8	XTFlex/STS	58.9		41.5	67.4	61.0	69.4	37.5	44.6	52.2	76.2	38.2	23.6	34	21	1.0
B392EE	3.9	Enlist E3	58.8		40.6	64.3	63.8	72.4	31.2	47.2	61.3	62.3	38.5	22.0	33	21	1.1
Seed Consultants SC 7381ETM	3.8	Enlist	58.7	66.3	44.7	64.9	56.6	68.5	40.6	41.2	62.7	72.5	38.9	22.0	30	21	1.0

Table 5. (continued)

Variety	MG	Herbicide Technologies	State Average*		Calloway	Trigg	Fayette	Hancock	McCracken	Grayson	Pulaski	Allen	Protein	Oil	Height	Maturity Date	Lodging*
			2022	2021-22	Yield (bu/a)								%	%	(In)	September	
STEWART 3843XF	3.8	XTFlex	58.7		49.4	67.9	56.1	81.4	41.1	52.7	42.9	60.5	38.3	21.7	33	21	1.2
Seed Consultants SC 7372ETM	3.7	Enlist	58.7	65.6	45.8	66.5	66.6	69.2	48.5	48.5	54.5	59.9	38.2	22.5	31	21	1.0
STINE 39EC22	3.9	E3/Pub	58.6	65.9	37.8	73.1	51.8	68.7	38.3	44.9	64.4	69.6	37.2	23.3	27	22	1.4
HS 38F20	3.8	Xtend	58.6		35.9	59.4	64.2	75.5	26.9	49.8	53.8	71.3	37.6	22.8	32	21	1.1
GH 3902E3S	3.9	E3/STS	58.2		40.3	62.3	62.5	69.0	36.3	55.1	52.9	65.0	37.5	22.9	37	22	2.1
NUTECH 35N03E	3.5	E3	57.9	64.9	40.6	71.4	57.6	66.4	35.3	45.6	49.7	73.8	38.2	23.4	31	18	1.1
ARMOR 39-F73	3.9	Xtend FleX	57.9	66.5	45.7	71.6	52.9	71.0	50.5	42.1	51.0	70.7	37.6	22.1	32	25	1.1
HS 37E10	3.7	E3/Enlist	57.5		42.9	68.3	51.8	62.4	38.3	54.4	54.0	68.8	38.4	23.9	30	18	1.0
NUTECH 39N04E	3.9	E3	57.4	66.5	40.3	63.6	53.3	70.8	37.0	42.7	60.7	70.5	38.5	22.6	27	16	1.1
XO 3752E	3.7	Enlist	57.3		44.6	64.8	48.8	68.8	46.7	47.7	64.1	62.5	38.9	23.7	29	19	1.2
STINE 36EE12	3.6	E3/Pub	57.2	64.2	43.1	70.7	55.5	66.1	41.7	41.0	49.2	74.8	39.3	23.7	30	20	1.1
HS 35F20	3.5	Xtend	56.7		38.1	61.1	51.6	69.6	26.4	40.9	66.8	69.1	39.9	22.3	32	18	1.4
Revere 3908XFS	3.9	XTFlex/STS	56.7	64.3	43.0	69.6	58.6	69.1	43.2	39.6	54.3	62.4	40.2	21.7	35	22	1.1
GH 3762E3S	3.7	E3/STS	55.8	64.5	37.7	66.8	60.5	60.5	38.8	44.0	57.5	63.6	36.8	23.4	36	21	1.2
Dyna-Gro S39XF41	3.9	XTFlex/STS	55.6	66.0	38.4	63.6	57.9	59.2	39.3	50.5	58.3	61.6	39.4	21.9	33	23	1.2
Asgrow AG38XF1	3.8	XF	54.3	62.4	38.1	63.2	53.8	57.6	34.3	52.2	54.6	60.4	39.1	22.5	35	21	1.0
STEWART 3731XF	3.7	XTFlex	54.2	60.1	41.7	53.7	58.8	60.0	33.0	45.5	56.6	63.3	41.3	21.4	32	20	1.4
PB 3323 E3 S	3.3	E3, STS	53.8		35.2	63.0	46.2	65.3	34.9	48.7	54.5	63.4	38.2	23.6	29	17	1.0
Channel 3322RXF	3.3	XTFlex	52.9		50.6	50.8	48.0	53.4	30.2	48.8	57.2	61.1	39.6	21.9	30	17	1.0
Asgrow AG38XF3	3.8	XF	52.6		41.0	58.7	52.7	59.9	39.7	42.5	61.3	52.0	40.9	21.3	31	19	1.0
Channel 3521RXF	3.5	XTFlex	50.6	59.8	46.2	63.5	55.1	54.5	58.3	41.9	42.9	50.1	39.9	22.5	27	19	1.1
STEWART 3531XF	3.5	XTFlex	48.2	57.5	41.8	58.9	42.9	49.2	37.0	38.7	51.0	55.1	39.3	22.5	27	16	1.0
Asgrow AG30XF2	3.0	XF	46.2	52.1	40.4	47.9	49.9	56.4	38.7	34.0	46.7	48.0	41.0	21.1	31	17	1.0
Average			**57.6**	**64.4**	**43.0**	**65.5**	**57.0**	**68.1**	**38.9**	**47.3**	**56.5**	**65.7**	**38.7**	**22.5**	**32**	**20**	**1.2**
CV (%)			9.9	8.8	9.7	7.7	12.5	8.8	18.7	11.9	10.5	8.4					
LSD (0.10)			2.9	4.0	8.1	9.9	13.8	11.5	14.0	10.9	11.4	10.6					

* Summary of seven trials - (Calloway, Trigg, Fayette, Hancock, Grayson, Pulaski, Allen counties). McCracken excluded.
Protein and Oil values (NIR) from 3 reps at Trigg County location.
Height and maturity date measured at Fayette Co. location (3 reps).
Planting date: Calloway - 5/10/22; Trigg - 4/29/22; Fayette - 5/2/22; Hancock - 5/12/22; McCracken - 5/11/22; Grayson - 4/28/22; Pulaski - 5/5/22; Allen - 5/13/22.
Harvest Date: Calloway - 9/22/22; Trigg - 9/21/22; Fayette - 9/26/22; Hancock - 10/4/22; McCracken - 9/22/22; Grayson - 9/20/22; Pulaski - 10/7/22; Allen - 10/14/22.
Lodging scale: 1 = no lodging, 5 = >50% lodging.

McCracken data highly variable - Dicamba drift damage - do not use for variety selection.

Table 6. 2022 Kentucky Soybean Variety Trial - Maturity Group IV Early (4.0 - 4.5).

Variety	MG	Herbicide Technologies	State Average*		Calloway	Trigg	Fayette	Hancock	McCracken	Grayson	Pulaski	Allen	Protein	Oil	Height	Maturity Date	Lodging*
			2022	2021-22	Yield (bu/a)								%	%	(In)	September	
GH 4433E3S	4.4	E3/STS	65.6		47.9	70.2	62.8	82.0	45.8	52.3	57.8	86.3	39.5	21.3	30	31	1.1
PIONEER P42A84E	4.2	ENLIST	64.7		53.8	68.7	56.5	69.7	49.1	58.1	60.0	86.1	37.3	22.2	36	28	1.3
Revere 4299XS	4.3	Xtend/STS	64.3	71.5	53.0	72.7	57.7	70.1	48.9	47.7	57.6	91.5	37.3	22.4	37	30	1.1
B452EE	4.5	Enlist E3	63.3		42.5	67.0	67.5	77.3	51.1	47.6	58.5	82.8	36.2	22.8	37	30	1.2
NUTECH 45N09E	4.5	E3	63.2		42.2	65.7	68.0	72.4	48.4	60.8	55.3	78.0	36.5	22.9	37	30	1.3
B421EE	4.2	Enlist E3	63.2	71.1	44.7	74.0	54.7	72.6	43.2	56.2	58.8	81.2	36.7	23.7	33	28	1.8
XO 4132E	4.1	Enlist	63.1		42.4	66.4	56.0	80.6	43.8	55.6	59.6	81.3	36.5	23.7	35	27	1.7
STINE 41EE62	4.1	E3/Pub	63.0		41.4	68.2	57.0	79.7	40.9	49.2	61.9	83.9	36.7	23.9	31	28	1.6
AGRIGOLD G4144XF	4.1	XF	63.0		54.7	67.3	66.0	76.8	41.2	52.4	52.0	72.0	37.8	21.9	35	31	1.7
ASGROW AG45XF3	4.5	XF/SR	62.9		48.3	70.0	59.0	80.4	31.0	60.5	50.0	72.4	37.4	22.8	36	31	1.4
NUTECH 43N04E	4.3	E3	62.2	70.7	52.5	70.1	55.2	76.9	45.9	51.5	51.2	77.6	36.7	23.9	32	28	1.7
GH 4343XFS	4.3	XTFlex/STS	61.8		50.2	69.8	58.5	77.5	46.4	56.0	50.4	70.2	37.7	22.5	36	31	1.0
HS 40F20	4.0	Xtend	61.7		43.8	62.3	60.4	78.3	47.2	48.6	54.7	83.8	38.4	22.1	34	28	1.1
Revere 4526XFS	4.5	XTFlex/STS	61.7		52.7	69.2	55.3	81.7	33.7	50.5	46.2	76.2	36.2	22.7	36	31	1.4
XO 4522E	4.5	Enlist	61.5		43.6	60.1	58.2	76.1	36.9	54.7	57.9	80.0	37.6	23.0	34	31	1.1
DYNA-GRO S41EN72	4.1	Enlist E3	61.5	69.9	42.4	63.8	61.4	76.2	54.6	51.0	51.0	84.7	36.6	23.7	35	28	1.5
AGRIGOLD G4094XF	4.0	XF	61.2		49.7	66.5	59.8	76.6	30.5	53.8	47.5	74.7	36.8	24.0	35	28	1.3
STINE 41EB32	4.1	E3/Pub	61.2	69.1	33.8	67.2	52.7	82.1	47.2	51.3	61.1	80.4	38.8	22.7	30	28	1.1
Revere 4128XFS	4.1	XTFlex/STS	60.9		47.1	70.1	70.1	66.6	43.7	48.6	50.8	73.1	38.1	21.8	35	32	1.9
DYNA-GRO S4122STS	4.1	CONV	60.9	68.7	39.5	64.0	60.2	70.5	38.5	61.9	54.0	76.0	38.8	21.9	38	26	1.7
DYNA-GRO S45XF02	4.5	XTFlex/STS	60.7		47.5	65.6	63.5	69.7	41.2	49.4	50.6	78.9	37.9	22.3	37	32	1.1
HS 44F20	4.4	Xtend	60.6		48.6	70.3	59.0	72.9	35.9	46.4	54.4	72.7	37.7	22.9	37	32	1.2
DYNA-GRO S45ES10	4.5	Enlist E3/STS	60.5	69.0	50.8	66.4	46.8	78.1	44.5	54.8	52.0	74.7	37.4	23.1	33	30	1.2
Revere 4415XF	4.4	XTFlex	60.4	68.8	44.1	67.8	61.4	59.5	45.1	55.0	51.8	82.9	39.1	21.7	37	30	1.2
PIONEER P45A79E	4.5	ENLIST	59.9		41.4	55.4	63.6	79.2	45.8	52.1	49.6	77.9	37.4	23.3	33	30	1.3
AGRIGOLD G4151E3	4.1	E3	59.9		47.8	64.2	48.9	82.5	43.3	51.0	50.7	73.9	36.7	23.6	35	28	1.8
NK43-Y9XFS	4.3	XTFlex	59.8		42.9	67.5	55.5	72.8	39.9	48.0	54.7	77.3	37.7	22.7	36	31	1.0
Innotech 4324E3	4.3	Enlist E3	59.7		51.8	67.2	56.0	63.2	51.7	48.0	52.0	79.6	38.1	23.6	35	28	1.2
Seed Consultants SC 7421ETM	4.2	Enlist	59.4		42.7	63.7	62.9	69.9	36.4	47.3	59.7	69.6	37.3	23.5	36	28	1.8
B402EE	4.0	Enlist E3	59.4		45.9	61.4	60.5	73.8	37.0	47.5	53.6	73.1	36.4	23.1	32	27	1.1

Table 6. (continued)

Variety	MG	Herbicide Technologies	State Average*		Calloway	Trigg	Fayette	Hancock	McCracken	Grayson	Pulaski	Allen	Protein	Oil	Height	Maturity Date	Lodging*
			2022	2021-22													
			Yield (bu/a)										%	%	(In)	September	
STINE 44EC20	4.4	E3/Pub	58.8	65.9	45.3	62.5	57.8	72.6	32.3	49.5	45.7	78.6	38.7	22.4	34	30	1.3
NUTECH 40N02E	4.0	E3	58.7		42.5	60.0	57.7	70.9	29.7	47.2	54.1	78.7	38.3	22.8	30	26	1.1
Seed Consultants SC 7412ETM	4.2	Enlist	58.5		46.0	59.6	49.8	70.9	35.0	51.0	55.1	77.0	37.9	23.2	30	24	1.1
HS 41E20	4.2	E3/Enlist	58.4		41.5	66.5	51.2	73.9	48.3	46.2	46.4	83.2	35.7	24.1	35	29	1.7
DYNA-GRO S42XF93S	4.2	XTFlex/STS	58.3		45.5	64.8	60.7	67.5	41.1	54.2	47.5	67.7	38.0	22.1	37	30	1.5
PALOMA PL2E440	4.4	E3	58.0		48.4	59.6	58.9	64.6	42.7	47.6	53.3	73.6	36.4	22.8	32	30	1.7
AGRIGOLD G4350XF	4.3	XF	57.9		46.7	64.5	59.0	75.2	36.4	48.8	45.0	65.7	37.8	21.5	38	30	1.2
CHANNEL 4223RXF	4.2	XTFlex	57.7		47.8	67.3	52.4	71.6	37.6	48.1	53.4	63.2	38.5	22.7	38	28	1.0
STINE 44EE20	4.4	Enlist E3	57.7		44.5	60.1	56.5	67.2	38.8	46.6	54.2	74.5	37.4	23.7	35	29	1.2
HS 42E10	4.2	E3/Enlist	57.4		43.0	62.6	54.5	71.8	38.5	49.0	51.0	69.8	37.8	22.6	32	29	1.0
STEWART 4053XF	4.0	XTFlex	56.7		41.3	54.5	56.5	62.8	39.5	52.4	60.0	69.7	38.1	22.4	34	27	1.1
STEWART 4533XF	4.5	XTFlex	55.9		47.6	64.9	56.5	64.4	39.6	45.2	49.7	62.8	39.1	22.9	38	33	1.2
STEWART 4353XF	4.3	XTFlex	54.9		46.1	60.6	55.5	59.8	43.9	46.5	50.9	64.6	37.9	23.1	39	29	1.0
PB 423 E3 STSn	4.2	E3, STS	54.8	63.8	46.2	52.3	56.4	62.5	34.5	43.5	45.1	77.2	37.7	23.0	32	29	1.0
ASGROW AG40XF1	4.0	XF/SR	53.7	63.6	41.1	49.5	54.6	65.0	35.7	44.7	52.5	68.5	37.7	23.3	36	27	1.0
UMO S19-3530RY	4.3	R2Y	50.1		36.9	47.9	52.5	48.4	32.8	45.3	51.2	68.2	36.6	23.4	40	28	1.1
Average			**60.0**	**68.4**	**45.7**	**64.3**	**57.9**	**72.1**	**41.2**	**50.7**	**53.1**	**73.8**	**37.6**	**22.9**	**34**	**29**	**1.3**
CV (%)			8.8	8.1	8.2	8.6	10.6	6.9	21.7	11.4	10.0	6.9					
LSD (0.10)			2.6	3.6	7.2	10.5	11.5	9.3	17.1	10.8	10.2	9.8					

* Summary of seven trials - (Calloway, Trigg, Hancock, Grayson, Pulaski, Fayette and Allen counties). McCracken excluded.
Protein and Oil values (NIR) from 3 reps at Trigg County location.
Height and maturity date measured at Fayette Co. location (3 reps).
Planting date: Calloway - 5/10/22; Trigg - 4/29/22; Fayette - 5/2/22; Hancock - 5/12/22; McCracken - 5/11/22; Grayson - 4/28/22; Pulaski - 5/5/22; Allen - 5/13/22.
Harvest Date: Calloway - 10/11/22; Trigg - 10/6/22; Fayette - 10/19/22; Hancock - 10/14/22; McCracken - 10/10/22; Grayson - 10/5/22; Pulaski - 10/7/22; Allen - 10/18/22.
Lodging scale: 1 = no lodging, 5 = >50% lodging.

McCracken data highly variable - Dicamba drift damage - do not use for variety selection.

Table 7. 2022 Kentucky Soybean Variety Trial - Maturity Group IV Late (4.6 - 4.9).

Variety	MG	Herbicide Technologies	State Average*		Calloway	Trigg	Fayette	Hancock	McCracken	Grayson	Pulaski	Allen	Protein	Oil	Height	Maturity Date	Lodging*
			2022	2021-22													
			Yield (bu/a)										%	%	(In)	October	
Revere 4795XS	4.7	Xtend/STS	64.3	71.9	53.0	73.1	71.3	78.0	45.9	55.5	57.9	79.8	37.1	22.9	42	7	1.2
Seed Consultants SC 7462ETM	4.6	Enlist	63.2		44.9	66.0	71.4	72.5	44.8	60.0	63.9	82.0	36.8	22.8	40	5	1.3
ASGROW AG48XF3	4.8	XF/SR	62.9		50.4	68.8	61.5	81.3	52.2	63.0	53.2	73.0	38.2	22.8	39	10	1.4
NUTECH 47N04E	4.7	E3	62.4		48.2	67.8	65.7	79.4	44.9	56.5	61.4	75.3	36.4	22.1	38	7	1.3
ASGROW AG49XF3	4.9	XF	62.1		55.0	72.7	60.5	80.3	44.7	56.5	54.6	72.5	37.3	22.5	42	12	1.4
STINE 46EE20	4.6	E3/Pub	62.0	70.9	41.9	58.1	65.9	75.2	45.0	60.2	66.5	82.9	37.4	22.7	36	5	1.2
USG 7463XFS	4.6	XTFlex/STS	61.5		51.2	66.3	67.7	64.1	47.5	52.8	55.6	86.4	37.9	22.1	40	7	1.3
GH 4882XFS	4.8	XTFlex/STS	61.4		50.3	62.6	68.0	76.2	41.9	55.7	60.0	76.4	36.6	23.4	36	10	1.8
B472EE	4.7	Enlist E3	61.3		51.6	59.4	65.2	76.7	44.0	52.5	65.1	75.6	37.0	22.4	37	6	1.1
PIONEER P48A14E	4.8	ENLIST	60.8		44.8	62.0	67.1	79.9	50.4	52.5	51.7	78.2	37.4	22.0	42	9	1.4
Revere 4606XFS	4.6	XTFlex/STS	60.8	70.5	48.0	58.8	68.4	73.6	48.5	52.2	57.0	79.5	37.2	22.2	41	7	1.5
USG 7461XFS	4.6	XTFlex/STS	60.6	70.1	52.8	69.4	63.3	62.7	44.7	57.9	55.0	79.2	36.5	22.1	43	8	1.4
HS 48E10	4.8	E3/Enlist	60.6	66.4	48.8	59.9	65.8	76.4	49.3	53.9	57.2	73.4	37.9	21.6	43	8	2.3
DYNA-GRO S46XF31S	4.6	XTFlex/STS	60.4	70.0	46.0	57.2	68.9	78.6	45.0	57.2	60.5	70.0	36.8	22.3	43	8	1.2
Revere 4806XS	4.8	Xtend/STS	60.4	70.4	48.1	70.7	63.4	75.4	49.5	51.7	51.5	72.7	38.1	23.0	40	8	1.1
Revere 4727XFS	4.7	XTFlex/STS	60.2		54.7	68.3	66.5	66.9	43.0	51.3	52.5	78.2	37.1	22.3	42	8	1.8
DYNA-GRO S47XF23S	4.7	XTFlex/STS	60.0		44.6	67.1	63.9	77.7	44.0	58.8	55.7	67.9	36.7	23.1	40	8	1.2
ASGROW AG46XF3	4.6	XF/SR	59.9		48.5	60.6	65.2	75.0	42.9	62.0	55.9	68.8	37.6	23.4	42	7	1.4
XO 4772E	4.7	Enlist	59.6		47.3	59.5	66.3	76.0	44.4	55.0	54.3	73.9	37.5	22.4	40	7	1.5
Revere 4826XF	4.8	XTFlex	59.6		52.2	65.0	65.8	75.9	47.0	44.2	54.0	72.2	38.2	23.0	40	8	1.2
ARMOR 46-F76	4.6	Xtend FleX	58.8		41.5	66.5	62.9	79.7	45.1	55.4	44.6	74.2	36.8	22.2	43	8	1.5
Revere 4925XFS	4.9	XTFlex/STS	58.3		44.8	61.6	61.7	71.2	42.7	55.9	55.1	73.3	38.2	21.8	42	10	1.4
HS 48F20	4.8	Xtend	58.2		42.5	63.0	61.4	78.1	45.0	51.3	53.9	70.2	37.3	22.2	40	9	1.0

Table 7. (continued)

Variety	MG	Herbicide Technologies	State Average*		Calloway	Trigg	Fayette	Hancock	McCracken	Grayson	Pulaski	Allen	Protein	Oil	Height	Maturity Date	Lodging*
			2022	2021-22													
			Yield (bu/a)										%	%	(In)	October	
DYNA-GRO S4751STS	4.7	CONV	58.0	68.3	43.7	52.3	66.2	65.8	43.3	56.2	61.8	74.8	37.1	22.1	39	9	1.9
ARMOR 47-E03	4.7	Enlist/E3	57.9		43.7	55.1	58.6	73.8	45.6	57.3	53.4	75.5	37.4	22.3	37	7	1.4
STINE 48EE20	4.8	E3/Pub	57.6	67.7	37.6	58.5	65.3	79.0	43.2	48.8	54.7	73.6	37.5	22.4	38	8	1.6
STINE 47EE02	4.7	E3/Pub	57.5		40.4	61.1	64.8	72.7	45.7	48.5	55.2	71.6	38.3	22.5	39	7	1.3
STINE 49EE02	4.9	E3/Pub	57.1		43.9	56.2	61.2	78.4	41.6	51.1	52.9	71.7	39.1	21.4	38	8	1.7
STEWART 4730XF	4.7	XTFlex	57.1	67.5	41.1	54.6	68.2	65.8	50.1	50.8	55.5	70.9	36.1	22.9	44	8	1.1
DYNA-GRO S48EN73	4.8	Enlist E3	55.3		43.7	56.9	61.9	63.9	35.5	49.8	51.4	79.5	37.8	22.0	37	7	1.9
ASGROW AG47XF3	4.7	XF/SR	55.3		37.5	55.2	58.3	70.9	41.3	47.8	56.6	74.8	37.1	22.2	43	8	1.3
PALOMA PL2E472	4.7	E3	55.3		47.1	61.1	63.3	59.8	50.3	45.2	47.7	67.5	35.8	23.8	34	4	1.2
Innotech 4737E3	4.7	Enlist E3	54.5		45.8	51.1	54.3	74.6	47.0	44.6	46.5	72.3	38.8	21.4	35	8	1.4
UMO S17-2193C	4.7	Conv	53.1	64.9	40.4	53.3	54.1	66.0	38.9	51.3	49.1	71.5	36.3	22.7	45	9	1.5
DYNA-GRO S46ES91	4.6	Enlist E3/STS	52.3	64.7	47.7	53.2	57.3	63.2	39.9	47.2	46.4	63.5	39.3	21.9	43	7	1.2
UMO S17-2066C	4.9	Conv	50.1		41.0	53.7	50.7	61.8	42.1	38.8	45.6	67.2	36.6	21.5	39	9	2.3
UMO S16-13165C	4.7	Conv	49.3		40.7	51.0	51.7	59.5	37.8	46.8	52.9	54.3	38.3	21.7	49	10	1.5
PENNYRILE (check)	4.7	CONV-PUB	37.3	45.3	27.3	38.8	37.0	48.4	26.7	37.0	36.9	45.9	39.3	23.0	44	5	1.4
Average			**58.1**	**66.8**	**45.6**	**60.4**	**62.7**	**72.0**	**44.2**	**52.5**	**54.3**	**72.9**	**37.4**	**22.4**	**40**	**8**	**1.4**
CV (%)			8.5	7.6	9.5	8.3	6.8	8.5	7.7	11.0	9.6	6.4					
LSD (0.10)			2.3	3.4	8.3	9.7	8.1	11.5	6.6	11.0	10.1	8.8					

* Summary of eight trials - (Calloway, Trigg, Hancock, Grayson, Pulaski, McCracken, Fayette and Allen counties).
Protein and Oil values (NIR) from 3 reps at Trigg County location.
Height and maturity date measured at Fayette Co. location (3 reps).
Planting date: Calloway - 5/10/22; Trigg - 4/29/22; Fayette - 5/2/22; Hancock - 5/12/22; McCracken - 5/11/22; Grayson - 4/28/22; Pulaski - 5/5/22; Allen - 5/13/22.
Harvest Date: Calloway - 10/11/22; Trigg - 10/6/22; Fayette - 10/19/22; Hancock - 10/13/22; McCracken - 10/10/22; Grayson - 10/5/22; Pulaski - 10/7/22; Allen - 10/18/22.
Lodging scale: 1 = no lodging, 5 = >50% lodging.

Table 8. 2022 Kentucky Soybean Variety Trial - Maturity Group V (5.0 - 5.9).

Variety	MG	Herbicide Technologies	State Average*		Calloway	Trigg	Fayette	Hancock	McCracken	Grayson	Pulaski	Allen	Protein	Oil	Height	Maturity Date	Lodging*
			2022	2021-22	Yield (bu/a)								%	%	(In)	October	
Revere 5029XF	5.0	XTFlex	59.8		51.5	62.4	62.8	67.2	53.0	44.7	58.4	78.6	38.2	22.2	45	10	2.2
UMO S17-2509C	5.0	Conv	57.1		48.0	54.9	61.0	73.9	44.6	46.1	56.7	71.8	39.4	21.8	38	10	2.9
STINE 50EE12	5.0	E3/Pub	56.3		45.3	56.2	61.3	78.8	34.5	45.8	57.3	71.3	38.1	21.5	38	11	1.8
UMO S18-6097C	5.0	Conv	55.9		45.3	65.5	58.1	72.9	42.8	42.4	52.9	66.9	39.2	22.1	39	10	1.9
PALOMA PL2E502	5.0	E3	55.4		38.1	53.4	63.9	67.4	37.8	47.0	59.2	76.0	37.7	22.4	46	15	1.4
UMO S18-6328C	5.1	Conv	54.0		45.4	52.3	53.3	66.8	44.7	48.1	50.4	71.1	39.0	21.6	38	10	4.1
UMO S16-9478C	5.2	Conv	52.2	61.8	44.1	50.5	54.0	67.7	39.2	47.2	47.0	67.8	38.6	21.7	38	12	3.6
UMO S16-15170C	5.3	Conv	51.0	61.7	46.7	53.9	51.7	58.3	41.9	35.1	48.2	72.5	38.7	20.6	45	13	1.4
ESSEX (check)	5.0	CONV-PUB	46.0	51.3	39.6	46.0	52.6	61.0	30.6	23.4	50.8	63.9	40.8	21.9	32	7	1.1
Average			**54.2**	**58.2**	**44.9**	**55.0**	**57.6**	**68.2**	**41.0**	**42.2**	**53.4**	**71.1**	**38.9**	**21.8**	**39**	**11**	**2.2**
CV (%)			8.1	7.3	7.6	7.9	5.9	7.4	11.6	12.2	7.3	6.9					
LSD (0.10)			5.9	4.0	7.1	8.8	7.0	10.3	9.8	10.2	8.2	10.1					

* Summary of eight trials - (Calloway, Trigg, Hancock, Grayson, Pulaski, McCracken, Fayette and Allen counties).
Protein and Oil values (NIR) from 3 reps at Trigg County location.
Height and maturity date measured at Fayette Co. location (3 reps).
Planting date: Calloway - 5/10/22; Trigg - 4/29/22; Fayette - 5/2/22; Hancock - 5/12/22; McCracken - 5/11/22; Grayson - 4/28/22; Pulaski - 5/5/22; Allen - 5/13/22.
Harvest Date: Calloway - 10/11/22; Trigg - 10/6/22; Fayette - 10/19/22; Hancock - 10/13/22; McCracken - 10/10/22; Grayson - 10/5/22; Pulaski - 10/7/22; Allen - 10/18/22.
Lodging scale: 1 = no lodging, 5 = >50% lodging.

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