University of Kentucky
College of Agriculture, Food and Environment
Agricultural Experiment Station

2020 Kentucky Soybean Variety Performance Tests

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The Kentucky Soybean Variety Performance Tests are conducted to provide an unbiased and objective estimate of the relative performance of soybean varieties commercially available in Kentucky. This information may be used by growers and seed producers to aid in selecting varieties that will give the highest total production in a specific situation. Soybean cultivars in the 2020 tests were entered by soybean growers, commercial companies, and state and federal institutions.

Forty-five soybean tests were planted in 2020 in Kentucky, at the nine test locations. Test locations, planting and harvest dates are shown in Table 1.

Table 1. Locations, planting and harvest dates for the 2020 Kentucky Soybean Variety Performance Tests.

Region	Test Site	Collaborators	Planting Date(S)	Ag. Practice	Harvest Dates
Bluegrass	Fayette County	C.Venard	5/12/2020	No-till	MG II: 09/23, MG III: 10/01; MG IV Early, IV Late and V: 10/22
Green River	Hancock County	Mr. Hagman, soybean producer, and Evan Tates, UK Ext. Ag. & Nat Resources agent	6/8/2020	No-till	MG II, III & V: 11/02; MG IV Early & IV Late: 11/03
	Mulhenberg County	Mr. Miller, soybean producer, and Mr. Simpson, UK Ext. Ag. & Nat Resources agent	6/13/2020	Tillage	MG II & III: 10/17; MG IV Late & V: 11/8; MG IV Early: 11/9
Lake Cumberland	Cumberland County	Mr. Mims, soybean producer, and Mr. Guffey & Ms.	6/7/2020	No-till	MG II & III: 10/14; MG IV Early, IV Late & V: 11/18
Lincoln Trail	Meade County	Mr. Straney, soybean producer, and Mr. Mills, UK Ext. Ag. & Nat Resources agent	6/11/2020	No-till	MG II & III: 11/06; MG IV Early, IV Late & V: 11/07
Mammoth Cave	Allen County	Mr. Shaw, soybean producer and Mr. Huber, UK Ext. Ag. & Nat Resources agent	6/6/2020	No-till	MG II & III: 10/08; MG IV Early, IV Late & V: 11/17
Pennyrile	Caldwell County	Scott Peek, UKREC Farm manager	6/1/2020	No-till	MG II & III: 10/07; MG IV Early: 11/13; MG IV Late & V: 11/12
	Christian County	Mr. Askew, soybean producer, and Mr. Futrell, UK Ext. Ag. & Nat Resources agent	6/15/2020	No-till	MG II & III: 10/15; MG IV Early: 10/16; MGV: 11/13; MG IV Late: 11/16
Purchase	Calloway County	Dr. Ferguson, Pr. Murray State University	6/3/2020	No-till	MG II & III: 10/06; MG V: 11/09; MG IV Early & IV Late: 11/10

Methods

All tests 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 tests (Tables 5-11) had three replications (plots) for each variety. The individual plots were 15.5 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. Table 2 is a seeding rate planting guide for full-season and double-crop soybeans. Seeding rates should be adjusted on standard germination rates as well as expected stand losses. Stand losses are typically more severe in damp, cool conditions with heavy residues or with soil crusting. Stand losses are typically less with warm conditions and adequate soil moisture. All test sites were treated with fertilizers, lime, and herbicides before planting following current IPM and fertilizer/lime recommendations (see UK publication *A Comprehensive Guide to Soybean Management in Kentucky* [ID-249]). Seed source and varietal information are located in Table 3. 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 3). The plots were maintained as weed-free as possible during the growing season. All plots were mechanically end-trimmed.

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.

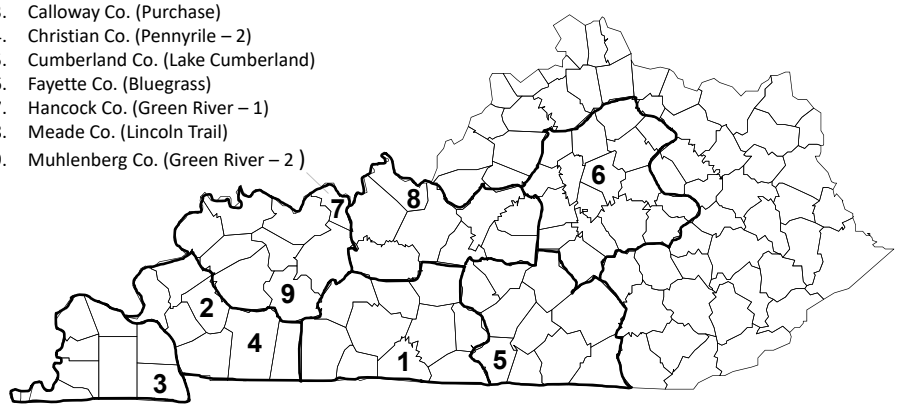
Yield is reported in bushels (60 pounds) per acre adjusted to 13 percent moisture. An electronic weight and moisture moni-

Tables

Performance Tests:

Kentucky Soybean Variety Performance Trials - 2020 test sites

1. Allen Co. (Mammoth Cave)
2. Caldwell Co. (Pennyrile – 1)
3. Calloway Co. (Purchase)
4. Christian Co. (Pennyrile – 2)
5. Cumberland Co. (Lake Cumberland)
6. Fayette Co. (Bluegrass)
7. Hancock Co. (Green River – 1)
8. Meade Co. (Lincoln Trail)
9. Muhlenberg Co. (Green River – 2)



tor (HarvestMaster HM800 GrainGage system, Juniper Systems, Inc., USA) located on the combine was used to record weight and moisture readings for each plot. Data were collected with a field PC connected to the monitor in the 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 dates were recorded at the Fayette County location. A variety was considered mature when 99 percent of the pods have turned their normal mature color. One to two weeks of good drying weather may be needed beyond the date given before ready to combine.

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, at harvest.

Disease scouting. Diseases may cause yield loss if soybean plants are infected prior to flowering. Planting disease-resistant or disease-tolerant varieties will help eliminate this possible yield loss. Growers should review Table 3 for disease resistance/tolerance ratings. In addition to the company specifications, the test plot fields were scouted every other week during the soybean growing season for diseases. During the 2020 season, significant sudden death syndrome (SDS) was observed at the Hancock County test site mid- to late August. Frogeye leaf spot (FLS) was also observed at all locations, but the ratings were very low. FLS and SDS ratings were performed and analyzed by Dr. Carl Bradley, UK Professor and Extension Specialist in Plant Pathology, and Ms. Kelsey Mehl, Agriculture Extension Associate at the Hancock test site.

Protein, Oil. Variety protein and oil concentrations will be reported on the basis of 13 percent moisture. The 2020 samples were collected at Fayette County, Caldwell County, and Calloway County, and will be analyzed with a NIR spectrophotometer (DA 7250, Perten Instruments, Sweden) as soon as possible. The data will be 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 Tests 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 Tests 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 a period of years and at several locations in the state is the best indicator of its production potential (see the University of Kentucky publication Agronomy Notes, Volume 21, No. 3, "Using Performance Test Results in Soybean Variety Selection in Kentucky," and UK ID-249). The data presented in Table 4 have been averaged across 2018-2019-2020 full-season years and locations and are recommended to evaluate variety relative performances. This table is also recommended for selecting varieties for maximum yield in double-crop systems in Kentucky. Better-yielding full-season varieties are also the better-yielding double-crop varieties (Pfeiffer, Todd. 1987. Applied Agricultural Research, Vol. 2, No. 3, pp. 141-145). The full-season environment that maximizes yield is a better indicator of performance than late-planted soybeans that have reduced yields. The data from three full-season tests, 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 through 11 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 do differ in yielding ability.

Yield is only one factor to consider in selecting a variety for a production system. Oil and protein contents, date of maturity, lodging resistance, disease resistance, availability of time and equipment, economic management, and weed control costs need to be considered as well.

Varieties with oil and protein levels that are eligible for premium prices are available in some markets. Oil and protein levels are influenced by variety and weather (primarily temperature) during seed filling (UK ID-249). We recommend that growers create a list of varieties that meet their needs for agronomic characteristics: yield, maturity group, soybean cyst nematode resistance, etc. Then, using the protein and oil data from Table 4, varieties that have the highest average oil and protein concentrations should be selected. This approach should help with selecting varieties that have the best chance of producing acceptable yield and meet the oil and protein standards.

The data are presented by maturity groups based on the information provided by the seed sources (Table 3). Due to weather patterns at a location, maturity alone can affect yield; this impact will be reflected by large differences in the maturity group averages. Selecting varieties from several maturity groups can reduce the impact of these maturity group fluctuations (UK ID-249). The date of a 50 percent chance of a fall killing frost is important in determining which variety should be planted. The dates, presented along with Tables 4 to 11, are average dates over a long term. Actual dates will vary from year to year. For the dates of a one year out of 10 chance of a fall killing frost, subtract 13 to 18 days from the average dates. For maximum yield, a variety must mature before the first killing frost in the fall.

In case 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 (https://plantpathology.ca.uky.edu/extension/soybean-cyst-nematode). 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–2020

March 2020 saw exceptionally wet conditions across Kentucky, with a monthly state average of 6.50 in. Most of the rain fell during the first half of the month. Rain throughout the month was accompanied by occasional bouts of severe weather (damaging winds, hail, tornadoes), most all situated across the western half of Kentucky. Above normal temperatures, sunshine, and breezy conditions dried out soils. Temperatures for the period averaged 52 degrees across the state, 6 degrees warmer than normal.

April was much drier. Kentucky saw occasional rounds of widespread showers. The state averaged 2.14 in. through the 19th. The latter weeks of April saw numerous rounds of widespread showers. By the end of the month, the state average sat at 4.76 inches of rain. April was a cool month with the state average temperature about three degrees below normal, and numerous instances of frost and subfreezing temperatures.

Below normal temperatures was the norm for much of the first half of May. Late-season frosts were prevalent throughout the month. The most significant event came on May 9th: temperatures dipped into the upper 20s to middle 30s. On the 11th, temperatures reached the upper 40s to middle 50s, and were back in the upper 70s to middle 80s by the 14th. Monthly rainfall totals ranged from 2 to 5 inches. Saturated soils and exceptional runoff led to flooding for portions of the Bluegrass Region. The summer-like pattern toward the end of the month resulted in near daily rounds of scattered showers and storms. The month ended with dry days with sunny skies and low humidity, which allowed dry periods to finish planting.

The extended period of dry weather starting in late May led the U.S. Drought Monitor to introduce an area of abnormally dry conditions across Western and Central Kentucky, but not for very long as the last week of June averaged 2.25 inches, with numerous rounds of showers and storms. Torrential rain fell with some substantial flooding on Sunday the 28th across North Central and South Central Kentucky. Overall, the state averaged 4.83 inches for June, which is about a half inch above normal.

In July, the state rainfall averaged 5.13 inches. An active pattern carried through most of the month. July started with Western Kentucky averaging 2 inches over the first week. Activity ramped up over the latter couple of weeks, with daily rounds of rainfall and typical summertime pattern. Overall, crop conditions were all running in the fair/good/excellent categories according to the USDA July 2020 Crop Progress and Condition Report.

Temperatures were below normal in August, and precipitation above normal with a state monthly average of over five inches. Heavy rainfall and slow storm movements lead to some localized flooding. August closed with the remnants of Hurricane Laura through the Lower Ohio Valley, bringing widespread rainfall to the area. The extra rainfall benefited crops across the area with the August 30th edition of the Kentucky Crop Progress and Condition report showing 84 percent of soybeans in the good to excellent category for crop condition.

In September, Kentucky saw above normal temperatures and precipitations. The state averaged 3.70 inches for September, which is about a third of an inch above normal for this time of year. Most of the rain in September fell over the first week of the month, with daily rounds of showers and storms. The state averaged 2.11 inches for this week alone. Rainfall returned the second weekend of September as the state averaged about an inch, with some counties receiving 4 to 5 inches, leading to significant flash flooding. Temperatures only ran slightly above normal for the month, quite different from 2019 when the state saw its second warmest September on record.

Temperatures finished slightly below normal for October. We experienced our fair share of ups and downs, typical for the fall season in Kentucky. We observed seven days reaching 80 degrees, while freezing temperatures occurred on October 5th and 16th. Drought conditions worsened through mid-month, and October finished excessively wet across the region.

Table 2. Planting guide for full-season and double-crop soybeans

Full-season soybeans

Target stand plant/acre	Germination rate	Assumed stand loss	Final seeding rate (seeds/acre)	Row spacing (in.) 7.5	15	30
				seeds per foot		
100,000	95%	5%	110,803	1.6	3.2	6.4
		10%	116,959	1.7	3.4	6.7
		20%	131,579	1.9	3.8	7.6
		30%	150,376	2.2	4.3	8.6
	90%	5%	116,959	1.8	3.4	6.7
		10%	123,457	1.8	3.5	7.1
		20%	138,889	2.0	4.0	8.0
		30%	158,730	2.3	4.6	9.1
	85%	5%	123,839	1.8	3.6	7.1
		10%	130,719	1.9	3.8	7.5
		20%	147,059	2.1	4.2	8.4
		30%	168,067	2.4	4.8	9.6

Double-crop soybeans

Target stand plant/acre	Germination rate	Assumed stand loss	Final seeding rate (seeds/acre)	Row spacing (in.) 7.5	15	30
				seeds per foot		
140,000	95%	5%	155,125	2.2	4.5	8.9
		10%	163,743	2.3	4.7	9.4
		20%	184,211	2.6	5.3	10.6
		30%	210,526	3.0	3.0	12.1
	90%	5%	163,743	2.3	7.4	9.4
		10%	172,840	2.5	5.0	9.9
		20%	194,444	2.8	5.6	11.2
		30%	222,222	3.2	6.4	12.8
	85%	5%	173,375	2.5	5.0	10.0
		10%	183,007	2.6	5.3	10.5
		20%	205,882	3.0	5.9	11.8
		30%	235,294	3.4	6.8	13.5

Sources: UKAg Weather Center (http://weather.uky.edu/); KY Mesonet (http://www.kymesonet.org/historical_data.php); the National Weather Service (https://www.drought.gov/drought/), and the National Integrated Drought Information System (NOAA/NIDIS https://www.drought.gov/drought/).

Detailed precipitation and temperature information at each test location is provided next to Tables 5 through 11, in the Agronomic Information sections. The data were collected using WatchDog 2900ET weather stations positioned at each field, and analyzed with the SpecWare 9 Pro Software (Spectrum Technologies, Inc.) or collected through the Mesonet network (www.kymesonet.org).

Soybean Production Information

This progress report from the Kentucky Agricultural Experiment Station is published with approval from the Director.

As of November 10, 2020, soybean production for Kentucky was forecast at 101 million bushels, up 30 percent from 2019. Yield was estimated at 55 bushels per acre, up 9.0 bushels from a year ago. Acreage for harvest as beans was estimated at 1.84 million acres, up 150,000 acres from the previous year. (Source: November Crop Production, Kentucky–News Release

USDA, NASS, Kentucky Field Office, November 10, 2020).

The University of Kentucky offers a series of publications, blogs, and websites that contain detailed information for soybean and grain production practices in Kentucky:

- KyGrains.info–The Farmer's Resource for Grain Production in Kentucky
- *A Comprehensive Guide to Soybean Management in Kentucky* (ID-249): http://www2.ca.uky.edu/agcomm/pubs/ID/ID249/ID249.pdf
- Kentucky Pest Newsletter: http://plantpathology.ca.uky.edu/extension/kpn
- University of Kentucky Cooperative Extension Services: https://extension.ca.uky.edu/
- Soybean Variety Performance Tests website: http://pss.ca.uky.edu/extension/soybean-variety-trials
- The University of Kentucky Grain Crops website (http://graincrops.ca.uky.edu/) provides links to all Kentucky variety test publications and related resources (http://graincrops.ca.uky.edu/variety-testing)

Kentucky State Seed Law

The Kentucky State Seed Law requires all seed exposed, offered for sale, or sold in Kentucky to be labeled as to a) kind and variety for each agricultural seed component present in excess of 5 percent of the whole, and b) the percentage by weight of each component. All soybean seed blends should be labeled as to the percentage of each variety that makes up the mixture. All soybean seed must be labeled by variety name; the term "variety unknown" may no longer be used in place of a variety designation for soybeans.

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- The National Institute of Food and Agriculture, US Department of Agriculture, Hatch Project KY006099 under accession number 101341
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- University of Kentucky:
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  - Sara Carter, James Dollarhide, Gene Hahn, and Joshua Duckworth
  - Dr. Carl Bradley and Ms. Kelsey Mehl
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  - Ted Walker, John Stanhope and the Service Center crew at Spindletop North Farm and Princeton UKREC for their service all year long
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Table 3. Company specifications for the varieties in the 2020 Kentucky Soybean Variety Performance Tests[A].

Variety/Brand name	MG	Soybean Technologies[B]	Disease Resistance Traits[C]						Seed treatments
			Soybean Cyst Nematode Resistance	Phytophtora sojae[D]		Sudden Death Syndrome	Stem Canker	Other[E]	
				Resistance Gene	Field ToleranceE				
AgriGold Soybean - www.agrigold.com									
AGRIGOLD G2900RX	2.9	Xtend	MR14, PI88		MR	MT	R		inoculant, SALTRO®, Fungicide, and Insecticide
AGRIGOLD G3620RX	3.6	Xtend	PI88		MR	MR	R		inoculant, SALTRO®, Fungicide, and Insecticide
AGRIGOLD G3722RX	3.7	Xtend	MR14, PI88		MR	MR	R		inoculant, SALTRO®, Fungicide, and Insecticide
AGRIGOLD G3850RX	3.8	Xtend	PI88, 788		MR	MR	R		inoculant, SALTRO®, Fungicide, and Insecticide
AGRIGOLD G4190RX	4.1	Xtend	MR14, PI88		MR	MR	R		inoculant, SALTRO®, Fungicide, and Insecticide
AGRIGOLD G4255RX	4.2	Xtend	PI88, 788		MR	MR	R		inoculant, SALTRO®, Fungicide, and Insecticide
AGRIGOLD G4318RX	4.3	Xtend	PI88, 788		MR	MR	R		inoculant, SALTRO®, Fungicide, and Insecticide
AGRIGOLD G4620RX	4.6	Xtend	PI88, 788		MR	MR	R		inoculant, SALTRO®, Fungicide, and Insecticide
Armor Seed - www.armorseed.com									
ARMOR 39-D30	3.9	RRX				MR	MR		Warden® CX
ARMOR 44-D19	4.4	RRX				MR	MR		Warden® CX
ARMOR 44-D49	4.4	RRX				M	R		Warden® CX
ARMOR 44-D92	4.4	RRXS	R3, MR14	RPS 1C	MR	MR	R		Warden® CX
ARMOR 46-D09	4.6	RRXS	R3, MR14	RPS 1C	MR	R	R		Warden® CX

continued

Table 3. continued

Variety/Brand name	MG	Soybean Technologies[B]	Disease Resistance Traits[C]						Seed treatments
			Soybean Cyst Nematode Resistance	Phytophtora sojae[D]		Sudden Death Syndrome	Stem Canker	Other[E]	
				Resistance Gene	Field ToleranceE				
ARMOR 48-D25	4.8	RRXS	R3, MR14	RPS 1C	MR	MR	R		Warden® CX
ARMOR 49-D14	4.9	RRX					R		Warden® CX
ARMOR 50-D50	5.0	RRX							Warden® CX
ARMOR 42-E11	4.2	E3							Warden® CX
ARMOR 44-E44	4.4	E3							Warden® CX
ARMOR 46-E50	4.6	E3							Warden® CX
ARMOR 47-E02	4.7	E3							Warden® CX
ARMOR 48-E81	4.8	E3							Warden® CX
ARMOR 51-E53	5.1	E3							Warden® CX
ASGROW Bayer Crop Sciences - www.cropscience.bayer.com									
ASGROW AG29X9	2.9	RR2X	R3	C	MT	MR			Acceleron®, ILEVO®
ASGROW AG33X0	3.3	RR2X	R3	C	T	MR	MR		Acceleron®, ILEVO®
ASGROW AG36X6	3.6	RR2X	R3	C	MT	MR	MR		Acceleron®, ILEVO®
ASGROW AG37X9	3.7	RR2X	R3	A	T	MR	R		Acceleron®, ILEVO®
ASGROW AG38X8	3.8	RR2X	R3	C	MT	MR	MR		Acceleron®, ILEVO®
ASGROW AG39X0	3.9	RR2X	R3	C	MT	MR	MR		Acceleron®, ILEVO®
ASGROW AG39X7	3.9	RR2X/SR	R3	C	MT	MR	MR		Acceleron®, ILEVO®
ASGROW AG42X9	4.2	RR2X	R3	A	T	MR	R		Acceleron®, ILEVO®
ASGROW AG43X0	4.3	RR2X/SR	R3	C	MT	MR	R		Acceleron®, ILEVO®
ASGROW AG46X0	4.6	RR2X/SR	R3	C	MT	MR	R		Acceleron®, ILEVO®
ASGROW AG47X9	4.7	RR2X	R3	A	MS	MR	R		Acceleron®, ILEVO®
ASGROW AG48X7	4.8	RR2X/SR	R3	C	MR	MR	R		Acceleron®, ILEVO®
ASGROW AG48X9	4.8	RR2X/SR	R3	C	T	MR	R		Acceleron®, ILEVO®
BASF - agriculture.basf.us									
CZ 4240GTLL	4.2	LLGT27	R3	Rps 1A	MR	MR	R		Obvious® Plus, Poncho®, Votivo®, ILeVo®
CZ 4241GTLL	4.2	LLGT27							Obvious® Plus, Poncho®, Votivo®, ILeVo®
CZ 4770X	4.7	Xtend	R3	NR	MR	MR			Obvious® Plus, Poncho®, Votivo®, ILeVo®
CZ 4730X	4.7	Xtend	R3	Rps 1C	MR	MR	R		Obvious® Plus, Poncho®, Votivo®, ILeVo®
CZ 4810X	4.8	Xtend	R3	Rps 1C	MR	MS	R		Obvious® Plus, Poncho®, Votivo®, ILeVo®
Blue River Organic Seed - blueriverorgseed.com									
BLUE RIVER e4993	4.9	Feed		MT	MS				
BLUE RIVER 41DC8	4.1	Feed							
BLUE RIVER 49CK9	4.9	Feed							
Brevant™ Seeds - brevant.com									
B389EE	3.8	Enlist/LL/RR2	R3, R14	Rps1k	MR	MT	T		Lumisena®, Evergol Energy, Gaucho, Biological
B400EE	4.0	Enlist/LL/RR2	R3, R14	None	MR	T	T		Lumisena®, Evergol Energy, Gaucho, Biological
B390EE	3.9	Enlist/LL/RR2	R3, R15	None	R	T	T		Lumisena®, Evergol Energy, Gaucho, Biological
B420EE	4.2	Enlist/LL/RR2	R3, R16	Rps1c	MR	MT	T		Lumisena®, Evergol Energy, Gaucho, Biological
B430EE	4.3	Enlist/LL/RR2	R3, R17	None	Not Rated	MT	T		Lumisena®, Evergol Energy, Gaucho, Biological
B459EE	4.5	Enlist/LL/RR2/STS	R3, R18	None	MR	MT	T		Lumisena®, Evergol Energy, Gaucho, Biological
B460EE	4.6	Enlist/LL/RR2	R3, R19	None	MS	MT	T		Lumisena®, Evergol Energy, Gaucho, Biological
B470EE	4.7	Enlist/LL/RR2	R3, R14	Rps1a	MS	MS	T		Lumisena®, Evergol Energy, Gaucho, Biological
Caverndale Farms Brand Seed - www.caverndalefarms.com									
CAVERNDALE CF 383 E3 STSn	3.8	E3	R3,MR14	Rps 1k	MR	MR	R	Frogeye Leaf Spot- MR	"TEN- Imidacloprid, Metalxyl, Thiabendazole, N-Hibit, Tag Team LCO, Fludioxonil"
CAVERNDALE CF 423 E3 STSn	4.2	E3	R3,MR14	NA	MR	NA	R	Frogeye Leaf Spot- MR	"TEN- Imidacloprid, Metalxyl, Thiabendazole, N-Hibit, Tag Team LCO, Fludioxonil"
CAVERNDALE CF 453 E3	4.5	E3	88788	NA	NA	MR	R	Frogeye Leaf Spot- MR	"TEN- Imidacloprid, Metalxyl, Thiabendazole, N-Hibit, Tag Team LCO, Fludioxonil"

continued

Table 3. continued

Variety/Brand name	MG	Soybean Technologies[B]	Disease Resistance Traits[C]						Seed treatments
			Soybean Cyst Nematode Resistance	Phytophtora sojae[D]		Sudden Death Syndrome	Stem Canker	Other[E]	
				Resistance Gene	Field ToleranceE				
CAVERNDALE CF 473 E3 STSn	4.7	E3	R3,MR14	NA	MR	NA	R	Frogeye Leaf Spot- MR	"TEN- Imidacloprid, Metalxyl, Thiabendazole, N-Hibit, Tag Team LCO, Fludioxonil"
CAVERNDALE CF 461 LL/GT27/STSn	4.6	GTLL27	R3,MR14	Rps 1k	MR	NA	R	Frogeye Leaf Spot- MR	"TEN- Imidacloprid, Metalxyl, Thiabendazole, N-Hibit, Tag Team LCO, Fludioxonil"
Channel Seed - www.channel.com									
CHANNEL 3821R2X/SR	3.8	RR2/Xtend/SR	3	1C	R		R		Acceleron®, Insecticide, Ilevo®
CHANNEL 4218R2X/SR	4.2	RR2/Xtend/SR	3	1C	MT	R	R		Acceleron®, Insecticide, Ilevo®
CHANNEL 4519R2X/SR	4.5	RR2/Xtend/SR	3	1C	MT	MT	R		Acceleron®, Insecticide, Ilevo®
DONMARIO Seeds - www.donmario.com									
DM 40X61	4.0	RR2X	R-PI88788			8	R		Equity® VIP
DM 45X61	4.5	RR2X	R-PI88788				R		Equity® VIP
DM 49X13	4.9	RR2X	S				R		Equity® VIP
DM 48E73	4.8	Enlist	S		8		R		Equity® VIP
GROWMARK Seeds - www.growmarkfs.com									
HS 41X70	4.1	Xtend	3, 14	None	MT	MR	R		Acceleron®, Insecticide, Fungicide
HS 43E00	4.3	E3	3, 14	None	MT	MR	R		Acceleron®, Insecticide, Fungicide
HS 45E00	4.5	E3	3, 14	Rps 1A	MT	MR	R		Acceleron®, Insecticide, Fungicide
HS 46X90	4.6	Xtend	3, 14	Rps 1C	MT	MR	R		Acceleron®, Insecticide, Fungicide
HS 48E00	4.8	E3	3, 14	None	MT	MR	R		Acceleron®, Insecticide, Fungicide
HS 49X60	4.9	Xtend	3, 14	Rps 1C	MT	MR	R		Acceleron®, Insecticide, Fungicide
LG Seeds - www.lgseeds.com									
LG SEEDS LGS3600RX	3.6	Xtend - STS	R-3, MR14	None	MR	MR	R	Frogeye Leaf Spot- MR	
LG SEEDS LGS3733RX	3.7	Xtend - STS	R-3	Rps1c	MR	MR	R		
LG SEEDS LGS3840RX	3.8	Xtend - STS	R-3, MR14	Rps1c	MR	MR	R		
LG SEEDS LGS4464RX	4.4	Xtend - STS	R-3	None	MR	MR	MR	Frogeye Leaf Spot- MR	
LG SEEDS LGS4632RX	4.6	Xtend - STS	R-3	None	MR	MT	R	Frogeye Leaf Spot- MR	
LG SEEDS LGS4899RX	4.8	Xtend - STS	R-3, MR14	Rps1c	MR	MR	R	Frogeye Leaf Spot- MR	
Local Seed Company - localseed.com									
LS3906GL	3.9	LLGT27							Radius Premium
LS3976X	3.9	Xtend							Radius Premium
LS4299XS	4.2	Xtend/STS							Radius Premium
LS4407X	4.4	Xtend							Radius Premium
LS4565XS	4.5	Xtend/STS							Radius Premium
LS4583X	4.5	Xtend							Radius Premium
LS4607XS	4.6	Xtend/STS							Radius Premium
LS4706GL	4.7	LLGT27							Radius Premium
LS4795XS	4.7	Xtend/STS							Radius Premium
LS4806XS	4.8	Xtend/STS							Radius Premium
LS4999X	4.9	Xtend							Radius Premium
LS5009XS	5.0	Xtend/STS							Radius Premium
LS5087X	5.0	Xtend							Radius Premium
LS5386X	5.3	Xtend							Radius Premium
ZS3898E3S	3.8	Enlist/STS							Radius Premium
ZS5098E3	5.0	Enlist							Radius Premium
Mission Seed Solutions - www.innvictisseed.com									
MISSION A4448X	4.4	RR2/Xtend/STS	3, 14	1c	T	T	R	R-Root Knot Nematode	ReVize® PBI
MISSION A4618X	4.6	RR2/Xtend/STS	3, 14	1c	T	MT	R		ReVize® PBI
MISSION A4828X	4.8	RR2/Xtend/STS	3, 14		MT	MT	R		ReVize® PBI
MISSION A4950X	4.9	RR2/Xtend	3, 14		T	T	R		ReVize® PBI
NuTech Seed - nutechseed.com									
NUTECH 36N03E	3.6	E3	PI88788	Rps 1k					Lumisena®
NUTECH 39N04E	3.9	E3	PI88788						Lumisena®
NUTECH 39N05E	3.9	E3	PI88788						Lumisena®
NUTECH 41N03E	4.1	E3	PI88788						Lumisena®
NUTECH 43N04E	4.3	E3	PI88788						Lumisena®
NUTECH 45N04E	4.5	E3	PI88788						Lumisena®
NUTECH 46N02E	4.6	E3	PI88788						Lumisena®

continued

Table 3. continued

Variety/Brand name	MG	Soybean Technologies[B]	Disease Resistance Traits[C]						Seed treatments
			Soybean Cyst Nematode Resistance	Phytophtora sojae[D]		Sudden Death Syndrome	Stem Canker	Other[E]	
				Resistance Gene	Field Tolerance[E]				
Nutrien Ag Solutions - nutrienagsolutions.com									
DYNA-GRO S38XS21	3.8	XT/STS	R3, MR14	1c	MT	MR	R		Equity® VIP, SALTRO®
DYNA-GRO S3961STS	3.9	CONV	R3, MR14		MT	MR	MR		Equity® VIP, SALTRO®
DYNA-GRO S39EN19	3.9	E3	R3, MR14		MT	MR	R	Frogeye Leaf Spot- MR	Equity® VIP, SALTRO®
DYNA-GRO S41ES80	4.1	E3/STS	R3, MR14		MT	MR	R	Frogeye Leaf Spot- MR	Equity® VIP, SALTRO®
DYNA-GRO S41XS98	4.1	XT/STS	R3, MR14		MT	MR	MR	Frogeye Leaf Spot- MS	Equity® VIP, SALTRO®
DYNA-GRO S43EN61	4.3	E3	R3, MR14		MT	MR	R	Frogeye Leaf Spot- R	Equity® VIP, SALTRO®
DYNA-GRO S43XS70	4.3	XT/STS	R3, MR14	1c	MT	MR	R	Frogeye Leaf Spot- MR	Equity® VIP, SALTRO®
DYNA-GRO S45ES10	4.5	E3/STS	R3, MR14		MT	MR	R	Frogeye Leaf Spot- R	Equity® VIP, SALTRO®
DYNA-GRO S46ES91	4.6	E3/STS	R3, MR14		MT	MR	R	Frogeye Leaf Spot- MR	Equity® VIP, SALTRO®
DYNA-GRO S46XS60	4.6	XT/STS	R3, MR14	1c	MT	R	R	Frogeye Leaf Spot- MR	Equity® VIP, SALTRO®
DYNA-GRO S46XT80	4.6	XTEND	R3, MR14	1c	T	R	MR	Frogeye Leaf Spot- R	Equity® VIP, SALTRO®
DYNA-GRO S4751STS	4.7	CONV	S		MT	MR	R	Frogeye Leaf Spot- MR	Equity® VIP, SALTRO®
DYNA-GRO S48XT56	4.8	XTEND	R3, MR14	1a	MT	R	R	Frogeye Leaf Spot- MR	Equity® VIP, SALTRO®
DYNA-GRO S48XT90	4.8	XTEND	S		MT	MR	R	Frogeye Leaf Spot- R	Equity® VIP, SALTRO®
Pioneer - www.pioneer.com									
PIONEER P31A22X	3.1	RR2X	3, 14	1k	T	MR			LumiGEN™
PIONEER P33A53X	3.3	RR2X	3, 14	1c	T	MR			LumiGEN™
PIONEER P36A83X	3.6	RR2X	3, 14	1a	T	MR	MR		LumiGEN™
PIONEER P39A58X	3.9	RR2X	3, 14	1k	T	T	T		LumiGEN™
PIONEER P42A96X	4.2	RR2X	3, 14	1c	T	MR	MR		LumiGEN™
PIONEER P44A72BX	4.4	RR2X/STS	3, 14		T	T	MR		LumiGEN™
PIONEER P46A86X	4.6	RR2X	3, 14		MT	T	MR		LumiGEN™
PIONEER P48A60X	4.8	RR2X	3, 14		MT	MR	MR		LumiGEN™
Progeny Ag - www.progenyag.com									
PROGENY 4241 E3	4.2	Enlist	R3, MR14	1a			R		
PROGENY 4265 RXS	4.2	Xtend/STS	R3, MR14	1c		MR	R		
PROGENY 4444 RXS	4.4	Xtend/STS	R3, MR14	1c		MR/MS	R		
PROGENY 4505 RXS	4.5	Xtend/STS	MR3			MR	R		
PROGENY 4620 RXS	4.6	Xtend/STS	R3, MR14	1a		MR	R		
PROGENY 4682 E3	4.6	Enlist	S	1c			R		
PROGENY 4602 LR	4.6	Liberty Link GT27	R3, MR14			MR	R		
PROGENY 4700 RXS	4.7	Xtend/STS	MR3			MR	R		
PROGENY 4775 E3S	4.7	Enlist/STS	R3, MR14	S			R		
PROGENY 4816 RX	4.8	Xtend	R3	1a		MR	R		
PROGENY 4821 RX	4.8	Xtend	R3, MR14	1c		MR	R		
PROGENY 4851 RX	4.8	Xtend	R3, MR14	1		MR	MR		
PROGENY 4807 E3S	4.8	Enlist/STS	R3, MR14			MR	R		
PROGENY 4970 RX	4.9	Xtend	S			MR	R		
PROGENY 4902 E3	4.9	Enlist	R3, MR14	1c		MR	R		
PROGENY 4908 E3S	4.9	Enlist/STS	MR3			MR	R		
PROGENY 5016 RXS	5.0	Xtend/STS	R3, MR14	1a		MR	R		
PROGENY 5170 RX	5.1	Xtend	R3, RM14	1c, 1k		MR	R		
PROGENY 5252 RX	5.2	Xtend	S	1k		MR	R		
PROGENY 5211 E3	5.2	Enlist	S				R		
Seed Consultants - www.seedconsultants.com									
SEED CONSULTANTS SC 3399L™	3.9	LL	3, 14		R	S			Lumisena®
SEED CONSULTANTS SCS 9393RR™	3.9	R2Y	3, 14	1k	MS	T			Lumisena®
SEED CONSULTANTS SC 8399X™	3.9	X	3, 14		R	T			Lumisena®
SEED CONSULTANTS SC 7381E™	3.8	E3							Lumisena®
SEED CONSULTANTS SC 7421™	4.2	E3							Lumisena®
Stewart Seeds - www.seedconsultants.com									
STEWART 3628R2X	3.6	RR2/Xtend	PI88788	1c	MS	MS	MR		Acceleron® Standard
STEWART 3830R2X	3.8	RR2/Xtend	PI88788	1c	MR	MS	MR		Acceleron® Standard
STEWART 4029R2X	4.0	RR2/Xtend	PI88788	1c	MR	MR	MR		Acceleron® Standard
STEWART 4228R2X	4.2	RR2/Xtend/SR	PI88788	1c	MS	MS	MR		Acceleron® Standard
STEWART 4527R2X	4.5	RR2/Xtend/SR	PI88788	1c	MR	MR	MR		Acceleron® Standard
STEWART 4927R2X	4.9	RR2/Xtend/SR	PI88788	1c	MR	MR	MR		Acceleron® Standard
Stratton Seed - gostrattonseed.com									
GO SOY 41C19	4.1	Conventional	3, 14		R	R	R		CruiserMaxx® Vibrance®
GO SOY 48C17S	4.8	Conventional/ STS	3, 14			R	R		CruiserMaxx® Vibrance®
AGS GS42X19S	4.2	Xtend STS	3, 14		R	R	R		CruiserMaxx® Vibrance®

continued

Table 3. continued

Variety/Brand name	MG	Soybean Technologies[B]	Disease Resistance Traits[C]						Seed treatments
			Soybean Cyst Nematode Resistance	Phytophtora sojae[D]		Sudden Death Syndrome	Stem Canker	Other[E]	
				Resistance Gene	Field ToleranceE				
AGS GS47X19	4.7	Xtend	3, 14		R	R	R		CruiserMaxx® Vibrance®
GO SOY 38E21S	3.8	Enlist/STS	3, 14		R	R	R		CruiserMaxx® Vibrance®
GO SOY 433E21	4.3	Enlist	3, 14		R	R	R		CruiserMaxx® Vibrance®
GO SOY 463E20S	4.6	Enlist/STS	3, 14		R	R	R		CruiserMaxx® Vibrance®
GO SOY 481E19	4.8	Enlist	3, 14		R	R	R		CruiserMaxx® Vibrance®
Taylor Seed / Agri-Technology Solutions - taylorseedfarms.com									
TAYLOR SEED T4641 ES	4.6	E3	MR3, MR14	Rps 1a					CruiserMaxx®
TAYLOR SEED T4990XS XTEND	4.9	Xtend							CruiserMaxx®
TAYLOR SEED T4880X XTEND	4.8	Xtend	R3, MR14	Rps 1a	MR	MR	R		CruiserMaxx®
TAYLOR SEED T4400XS	4.4	Xtend	MR3, MR14	Rps 1c	MR	MR	MR		CruiserMaxx®
Stine Seed Company - www.stineseed.com									
STINE 39EA02	3.9	E3							
STINE 46EB22	4.6	E3							
STINE 48EB02	4.8	E3							
STINE 41EB32	4.1	E3							
STINE 40EB22	4.3	E3							
UniSouth Genetics - www.usgseed.com									
USG 7447XTS	4.4	RR2X	R3, MR14	Rps 1c	MR	MR	MS		Ipconazole/Metalaxyl/ Imidicloprid
USG 7461XTS	4.6	RR2X	MR3		MR	MR	R		Ipconazole/Metalaxyl/ Imidicloprid
USG 7470XT	4.7	RR2X	R3, MR14	Rps 1c	MR	MR	R		Ipconazole/Metalaxyl/ Imidicloprid
USG 7489XT	4.8	RR2X	R3, MR14	Rps 1a	MR	MR	R		Ipconazole/Metalaxyl/ Imidicloprid
USG 7496XTS	4.9	RR2X	R3, MR14	Rps 1a	MR	MR	R		Ipconazole/Metalaxyl/ Imidicloprid
University of Kentucky									
ESSEX (long term check-released 1974)	5.0	CONV-PUB							none
PENNYRILE (long term check-released 1987)	4.7	CONV-PUB							none
University of Missouri									
UNIVERSITY OF MISSOURI S15-5904RY	4.5	R2Y					R		Warden® RTA
UNIVERSITY OF MISSOURI S15-3847R	4.6	RR1	R3	1c			R		Warden® RTA
UNIVERSITY OF MISSOURI S16-5540R	4.6	RR1	R-2, 3, 5				S	Chloride excluder, R-KNM, R-Reniform	Warden® RTA
UNIVERSITY OF MISSOURI S16-14730C	4.7	CONV	R-3; MR-2,5				R	MR- RKN	Warden® RTA
UNIVERSITY OF MISSOURI S15-3772RY	4.8	R2Y		1a			S		Warden® RTA
UNIVERSITY OF MISSOURI S16-14379C	4.8	CONV					R		Warden® RTA
UNIVERSITY OF MISSOURI S16-7875C	4.9	CONV					R	R-Reniform	Warden® RTA
UNIVERSITY OF MISSOURI S16-11644C	4.9	CONV	R-2; MR-2,3				S	Chloride excluder, R-RKN	Warden® RTA
UNIVERSITY OF MISSOURI S16-7922C	4.9	CONV	MR-2,3,5				R	Chloride excluder, R-RKN, MR-Reniform	Warden® RTA
UNIVERSITY OF MISSOURI S16-3747RY	5.0	R2Y	MR-2,3; R-5				R	MR-Reniform	Warden® RTA
UNIVERSITY OF MISSOURI S16-3739RY	5.2	R2Y					R		Warden® RTA
UNIVERSITY OF MISSOURI S16-15809C	5.2	CONV						Chlorid excluder, R-RKN, MR-Reniform	Warden® RTA
UNIVERSITY OF MISSOURI S16-11651C	5.3	CONV	R-5; MR-2,3				R	Chloride excluder	Warden® RTA
UNIVERSITY OF MISSOURI S16-15170C	5.3	CONV	R-5; MR-2				R		Warden® RTA
VIRTUE Seeds - virtueseeds.com									
V 4220 S	4.2	CONV	R3-MS, R14S	RPS 1C	8	7	R		Equity® VIP
V 4520 S	4.5	CONV	R3-MS, R14S	RPS 1A	8	7	R		Equity® VIP
V 4921 S	4.9	CONV		RPS 1 K	8	8	R		Equity® VIP

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; Feed: Feed soybean variety; GT/GT27: variety tolerant to both glyphosate and glufosinate; LL: Liberty Link herbicide (glufosinate) tolerant soybean variety ; PUB: Public release variety; RR/RR1: first generation Roundup Ready (glyphosate) soybean variety (original trait, introduced in 1996); RR2/R2Y: second generation Roundup Ready 2 Yield soybean variety (introduced in 2009) ; SR/STS/STSn: sulfonylurea-tolerant soybean variety

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 yound seedlings of tolerant soybean varieties must be protected with a fungicde since field tolerance develops after early seedling growh stages.

E FLS: Frogeye Leaf Spot, RKN: Root Knot Nematode

Table 4. 2020 Kentucky Soybean Variety Performance Tests, State Summary - Recommended Table

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020	Technologies
MATURITY GROUP II (relative MG 2.0-2.9)					
ASGROW AG29X9	62.3	61.1		1.6	RR2X
AGRIGOLD G2900RX	60.2	60.9	55.9	2.1	Xtend
GROUP II AVERAGE	**61.2**	**61.0**	**55.9**	**1.9**	
LSD (0.10)	4.3	2.6			
C.V.	5.0	4.5			
MATURITY GROUP III (relative MG 3.0-3.9)					
DYNA-GRO S38XS21	**71.1**			2.1	XT/STS
DYNA-GRO S39EN19	70.6	70.3		1.6	E3
STINE 39EA02	70.4	68.8		1.7	E3
ARMOR 39-D30	70.3			3.4	RRX
ASGROW AG37X9	70.3	70.3	**65.9**	2.4	RR2X
PIONEER P36A83X	70.1			1.7	RR2X
LS3906GL	70.1			2.4	LLGT27
LS3976X	69.8	70.3		2.6	Xtend
STEWART 3830R2X	69.6	69.6		1.8	RR2/Xtend
STEWART 3628R2X	69.5	67.1		2.2	RR2/Xtend
AGRIGOLD G3850RX	69.4	67.3		2.4	Xtend
SEED CONSULTANTS SC 7381E™	69.2			1.4	E3
NUTECH 39N04E	68.8			1.3	E3
SEED CONSULTANTS SC 3399L™	68.6	**71.0**		2.7	LL
B390EE	68.5			1.5	Enlist/LL/RR2
ASGROW AG39X0	68.2	69.6		2.3	RR2X
AGRIGOLD G3722RX	68.1	69.0	64.8	2.7	Xtend
PIONEER P39A58X	68.0			1.7	RR2X
AGRIGOLD G3620RX	67.5	67.7		1.9	Xtend
ASGROW AG36X6	67.4			1.9	RR2X
ASGROW AG38X8	67.4	67.7	64.4	1.7	RR2X
ZS3898E3S	67.1			1.9	Enlist/STS
LG SEEDS LGS3840RX	67.0			1.8	Xtend - STS
GO SOY 38E21S	67.0			1.5	Enlist/STS
ASGROW AG39X7	66.9	67.9	64.4	1.7	RR2X/SR
CAVERNDALE CF 383 E3 STSn	66.8			1.2	E3
LG SEEDS LGS3733RX	66.7			2.4	Xtend - STS
NUTECH 39N05E	66.6			1.6	E3
B389EE	66.5			1.7	Enlist/LL/RR2
LG SEEDS LGS3600RX	66.2			1.8	Xtend - STS
ASGROW AG33X0	65.5			2.0	RR2X
NUTECH 36N03E	65.5			1.3	E3
DYNA-GRO S3961STS	65.0			1.5	CONV
SEED CONSULTANTS SC 8399X™	64.8	66.9	64.9	2.4	X
PIONEER P33A53X	64.6	65.2		1.4	RR2X
CHANNEL 3821R2X/SR	64.4			2.5	RR2/Xtend/SR
PIONEER P31A22X	62.9	62.9		3.4	RR2X
SEED CONSULTANTS SCS 9393RR™	62.9	66.4	63.3	1.4	R2Y
GROUP III AVERAGE	**67.6**	**68.1**	**64.6**	**2.0**	
LSD (0.10)	4.2	2.9	2.3		
C.V.	4.7	4.5	4.5		
MATURITY GROUP IV EARLY (relative MG 4.0-4.5)					
NUTECH 43N04E	**74.6**			2.0	E3
AGRIGOLD G4255RX	72.6			2.1	Xtend
DYNA-GRO S45ES10	72.5			2.0	E3/STS
STINE 41EB32	72.5			2.0	E3
DM 45X61	72.4			3.0	RR2X
LG SEEDS LGS4464RX	72.1			2.1	Xtend - STS
ARMOR 44-D49	72.1			3.2	RRX
STEWART 4527R2X	71.6	**72.4**	**70.6**	2.2	RR2/Xtend/SR
PROGENY 4444 RXS	71.5	69.1	66.4	3.0	Xtend/STS
ARMOR 44-E44	71.2			1.9	E3
AGRIGOLD G4318RX	71.0			2.6	Xtend
DYNA-GRO S41XS98	71.0	70.1	67.5	1.9	XT/STS
USG 7447XTS	70.9			2.3	RR2X

continued

Table 4. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020	Technologies
ASGROW AG43X0	70.8	71.6		1.9	RR2X/SR
HS 41X70	70.5			2.0	Xtend
CHANNEL 4519R2X/SR	70.4	70.9		2.0	RR2/Xtend/SR
MISSION A4448X	70.4			2.4	RR2/Xtend/STS
ARMOR 44-D92	70.3	71.3		2.1	RRXS
STEWART 4228R2X	70.2	69.7	66.7	2.1	RR2/Xtend/SR
DYNA-GRO S43XS70	70.2	69.7		2.1	XT/STS
SEED CONSULTANTS SC 7421™	70.1			2.2	E3
B400EE	70.1			1.4	Enlist/LL/RR2
B430EE	70.1			2.7	Enlist/LL/RR2
NUTECH 45N04E	70.0			1.9	E3
STINE 40EB22	69.9			2.1	E3
PROGENY 4505 RXS	69.9			3.0	Xtend/STS
PROGENY 4265 RXS	69.6	70.0		2.1	Xtend/STS
LS4299XS	69.6	70.7		2.1	Xtend/STS
LS4583X	69.6	68.1		2.1	Xtend
ARMOR 44-D19	69.5			2.3	RRX
DYNA-GRO S41ES80	69.5			1.8	E3/STS
AGRIGOLD G4190RX	69.4			2.0	Xtend
NUTECH 41N03E	69.4			1.5	E3
CAVERNDALE CF 423 E3 STSn	69.4			1.8	E3
GO SOY 433E21	69.2			3.3	Enlist
PROGENY 4241 E3	69.2			1.4	Enlist
DYNA-GRO S43EN61	69.1			2.1	E3
V 4520 S	69.1			2.0	CONV
CHANNEL 4218R2X/SR	69.0	69.4	65.5	2.0	RR2/Xtend/SR
CZ 4241GTLL	68.9			1.8	LLGT27
HS 45E00	68.9			1.7	E3
B459EE	68.8			1.7	Enlist/LL/RR2/STS
LS4565XS	68.7	69.1		2.7	Xtend/STS
V 4220 S	68.6			2.4	CONV
TAYLOR SEED T4400XS	68.3			2.2	Xtend
PIONEER P44A72BX	68.2	68.9	67.0	2.3	RR2X/STS
CZ 4240GTLL	68.1			1.1	LLGT27
B420EE	68.0			2.5	Enlist/LL/RR2
ARMOR 42-E11	67.8			2.3	E3
DM 40X61	67.7			2.3	RR2X
CAVERNDALE CF 453 E3	67.4			2.8	E3
PIONEER P42A96X	67.4	69.0	68.3	1.6	RR2X
GO SOY 41C19	67.3			2.4	Conventional
HS 43E00	66.9			2.3	E3
LS4407X	66.7	67.2		2.6	Xtend
AGS GS42X19S	66.5	64.5		1.7	Xtend STS
BLUE RIVER 41DC8	65.7			1.4	Feed
STEWART 4029R2X	64.7	66.6		1.9	RR2/Xtend
ASGROW AG42X9	63.7	66.3	63.8	2.6	RR2X
UNIVERSITY OF MISSOURI S15-5904RY	58.4			2.6	R2Y
GROUP IV EARLY AVERAGE	**69.3**	**69.2**	**67.0**	**2.2**	
LSD (0.10)	5.4	3.4	2.7		
C.V.	5.9	5.2	5.0		
MATURITY GROUP IV LATE (relative MG 4.6-4.9)					
B460EE	**70.8**			2.6	Enlist/LL/RR2
LG SEEDS LGS4632RX	70.5			2.8	Xtend - STS
USG 7461XTS	70.5			2.6	RR2X
USG 7489XT	70.5			1.4	RR2X
HS 46X90	70.4	68.6		1.7	Xtend
HS 49X60	70.3	68.1	65.8	1.9	Xtend
ARMOR 48-D25	70.2	69.3		1.8	RRXS
LS4795XS	70.2	67.1		1.7	Xtend/STS
PIONEER P46A86X	70.1			2.4	RR2X
PIONEER P48A60X	70.0	**70.8**	**68.7**	2.5	RR2X
PROGENY 4816 RX	69.9	68.7	67.0	1.7	Xtend
MISSION A4618X	69.7			2.4	RR2/Xtend/STS
LG SEEDS LGS4899RX	69.6	68.9		1.7	Xtend - STS

continued

Table 4. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020	Technologies
ASGROW AG46X0	68.9	66.4		1.9	RR2X/SR
NUTECH 46N02E	68.8			1.8	E3
DYNA-GRO S48XT90	68.8			2.8	XTEND
LS4806XS	68.8			1.6	Xtend/STS
B470EE	68.7			2.2	Enlist/LL/RR2
LS4999X	68.6	66.0		2.1	Xtend
PROGENY 4807 E3S	68.5			3.5	Enlist/STS
USG 7496XTS	68.5	67.0	64.6	2.4	RR2X
BLUE RIVER e4993	68.5	65.8		2.5	Feed
ARMOR 46-E50	68.4			1.7	E3
AGRIGOLD G4620RX	68.3			1.9	Xtend
HS 48E00	68.3			2.9	E3
STEWART 4927R2X	68.1	65.5	63.1	2.3	RR2/Xtend/SR
PROGENY 4775 E3S	67.9			1.8	Enlist/STS
DYNA-GRO S46XS60	67.9	68.4		1.8	XT/STS
ARMOR 47-E02	67.8			2.0	E3
PROGENY 4700 RXS	67.8			3.0	Xtend/STS
BLUE RIVER 49CK9	67.7			2.0	Feed
DYNA-GRO S48XT56	67.7	67.7	64.5	1.6	XTEND
ASGROW AG48X7	67.7			2.0	RR2X/SR
TAYLOR SEED T4990XS XTEND	67.4			2.1	Xtend
DYNA-GRO S46ES91	67.4			2.0	E3/STS
V 4921 S	67.3			2.1	CONV
ARMOR 46-D09	67.2	66.1		2.1	RRXS
TAYLOR SEED T4641ES	67.1			2.0	E3
TAYLOR SEED T4880X XTEND	67.1			1.4	Xtend
DYNA-GRO S4751STS	67.1			2.0	CONV
MISSION A4950X	67.0			2.7	RR2/Xtend
PROGENY 4821 RX	66.8	65.9		2.1	Xtend
LS4607XS	66.8			2.6	Xtend/STS
ASGROW AG48X9	66.6	67.2	65.9	1.6	RR2X/SR
PROGENY 4851 RX	66.5			3.9	Xtend
ARMOR 49-D14	66.4			2.9	RRX
AGS GS47X19	66.3			2.4	Xtend
DYNA-GRO S46XT80	65.9	66.9		2.4	XTEND
ASGROW AG47X9	65.8	67.6	66.0	1.8	RR2X
CZ 4770X	65.6			2.3	Xtend
MISSION A4828X	65.4			3.1	RR2/Xtend/STS
PROGENY 4970 RX	65.3			2.6	Xtend
USG 7470XT	65.2	65.9		2.4	RR2X
GO SOY 48C17S	65.2	62.2		3.4	Conventional/STS
CZ 4810X	65.1			2.6	Xtend
GO SOY 481E19	65.0			1.9	Enlist
PROGENY 4620 RXS	64.9	65.3	63.3	3.4	Xtend/STS
PROGENY 4902 E3	64.7			3.0	Enlist
STINE 46EB22	64.7			1.9	E3
DM 48E73	64.4			1.7	Enlist
PROGENY 4682 E3	64.3			2.3	Enlist
UNIVERSITY OF MISSOURI S16-14730C	64.3			2.4	CONV
ARMOR 48-E81	64.2			3.5	E3
CZ 4730X	64.1			2.1	Xtend
DM 49X13	63.9			2.5	RR2X
LS4706GL	63.7			1.7	LLGT27
GO SOY 463E20S	63.4			2.3	Enlist/STS
PROGENY 4602 LR	63.2			2.0	Liberty Link GT27
UNIVERSITY OF MISSOURI S15-3772RY	62.8			2.2	R2Y
UNIVERSITY OF MISSOURI S16-14379C	62.8			2.1	CONV
CAVERNDALE CF 473 E3 STSn	62.6			2.0	E3
UNIVERSITY OF MISSOURI S16-7922C	62.5			4.6	CONV
CAVERNDALE CF 461 LL/GT27/STSn	62.5			2.8	GTLL27
STINE 48EB02	62.2			2.4	E3
UNIVERSITY OF MISSOURI S16-7875C	61.5			4.6	CONV
UNIVERSITY OF MISSOURI S16-5540R	61.2			4.6	RR1
PROGENY 4908 E3S	59.5			2.1	Enlist/STS
UNIVERSITY OF MISSOURI S15-3847R	59.4			3.4	RR1
UNIVERSITY OF MISSOURI S16-11644C	59.1			4.6	CONV
PENNYRILE (long term check-released 1987)	49.7	50.3	48.0	2.5	CONV-PUB

continued

Table 4. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020	Technologies
GROUP IV LATE AVERAGE	**66.2**	**66.3**	**63.7**	**2.4**	
LSD (0.10)	4.3	3.0	2.4		
C.V.	4.9	4.8	4.7		
MATURITY GROUP V (relative MG 5.0-5.9)					
ARMOR 50-D50	**67.2**			2.5	RRX
LS5009XS	65.9			2.6	Xtend/STS
PROGENY 5170 RX	65.7	**67.9**		2.8	Xtend
PROGENY 5211 E3	65.5			2.3	Enlist
PROGENY 5016 RXS	64.9	66.8	65.7	2.3	Xtend/STS
LS5386X	64.8			1.7	Xtend
ARMOR 51-E53	64.8			2.6	E3
LS5087X	64.5	64.3		2.7	Xtend
UNIVERSITY OF MISSOURI S16-15170C	63.2			1.9	CONV
ZS5098E3	61.5			2.5	Enlist
PROGENY 5252 RX	60.3	62.9	60.2	2.2	Xtend
UNIVERSITY OF MISSOURI S16-3739RY	60.2			4.2	R2Y
UNIVERSITY OF MISSOURI S16-11651C	58.5			4.1	CONV
UNIVERSITY OF MISSOURI S16-3747R	58.3			4.0	R2Y
UNIVERSITY OF MISSOURI S16-15809C	57.7			4.0	CONV
ESSEX (long term check-released 1974)	55.6	57.6	54.7	3.2	CONV-PUB
GROUP V AVERAGE	**62.4**	**63.9**	**60.2**	**2.9**	
LSD (0.10)	4.8	3.0	2.3		
C.V.	5.7	5.0	4.7		

[A] *Within a maturity group, shaded yield are not significantly different (0.10) from the highest yielding cultivar (bold) of that maturity group and year column.*

[B] *The 2020 yield data were collected at the Allen Co., Caldwell Co., Calloway Co., Christian Co., Cumberland Co., Fayette Co., Hancock Co., Muhlenberg Co., and Meade Co. test sites. The 2019 yield data were collected in Allen Co. (except for the Maturity Group II - no data), Caldwell Co., Calloway Co., Christian Co., Cumberland Co., Fayette Co., Meade Co., and McLean Co. The 2018 yield data were collected at the Caldwell Co., Calloway Co., Fayette Co., Henderson Co., Logan Co., and Meade Co. locations.*

[C] *The 2018-2020 oil and protein samples were collected at the Caldwell Co., Calloway Co., and Fayette Co. test sites.*

Table 5. 2020 Kentucky Soybean Variety Performance Tests - Bluegrass Region, Fayette County

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020	PLANT HEIGHT (IN.) 2020	MATURITY DATE 2020	POD COLOR (R8)
MATURITY GROUP II (relative MG 2.0-2.9)							
AGRIGOLD G2900RX	**47.7**	45.0	46.8	1.0	31	16	Tan
ASGROW AG29X9	45.2	41.9		1.0	29	16	Tan
GROUP II AVERAGE	**46.4**	**43.4**		**1.0**	**30 in.**	**Sept. 16th**	
LSD (0.10)	4.3	1.4					
C.V.	3.7	3.9					
MATURITY GROUP III (relative MG 3.0-3.9)							
DYNA-GRO S38XS21	**68.5**			1.0	34	20	Brown tan
B389EE	65.5			1.0	30	28	Brown gold
SEED CONSULTANTS SC 3399L™	65.0	71.2		1.0	32	28	Brown
ASGROW AG39X7	64.3	61.2	62.2	1.0	33	20	Brown
LG SEEDS LGS3733RX	63.2			1.0	33	20	Brown tan
SEED CONSULTANTS SC 8399X™	63.1	62.1	**63.3**	1.0	34	28	Brown gold
DYNA-GRO S39EN19	62.9	59.3		1.0	29	20	Brown tan
GO SOY 38E21S	62.7			1.0	25	25	Gold
PIONEER P39A58X	61.5			1.0	32	25	Brown tan
CHANNEL 3821R2X/SR	60.0			1.0	32	28	Brown
LS3906GL	59.5			1.0	31	28	Gold
LG SEEDS LGS3600RX	59.5			1.0	34	20	Brown tan
SEED CONSULTANTS SC 7381E™	58.9			1.0	22	15	Grey
DYNA-GRO S3961STS	58.8			1.0	30	28	Brown gold
AGRIGOLD G3850RX	58.3	59.2		1.0	36	20	Gold
ARMOR 39-D30	58.2			1.3	34	28	Gold
ASGROW AG33X0	57.9			1.0	30	20	Tan
CAVERNDALE CF 383 E3 STSn	57.7			1.0	24	20	Gold
AGRIGOLD G3722RX	57.6	57.9	56.4	1.0	33	27	Brown
LS3976X	57.6	58.6		1.3	31	28	Gold
SEED CONSULTANTS SCS 9393RR™	57.1	58.4	59.3	1.0	36	20	Gold
STEWART 3830R2X	57.0	63.2		1.0	30	28	Tan grey
NUTECH 39N05E	56.4			1.0	27	25	Brown
STEWART 3628R2X	56.4	47.3		1.0	29	20	Grey
AGRIGOLD G3620RX	56.0	58.3		1.0	28	20	Tan
ASGROW AG36X6	55.9			1.0	27	20	Grey
PIONEER P31A22X	55.8	57.9		1.3	30	20	Brown
ASGROW AG39X0	55.7	56.8		1.0	33	20	Tan
ASGROW AG37X9	55.5	62.4	62.4	1.0	29	20	Tan
ASGROW AG38X8	55.5	59.9	60.9	1.0	32	22	Grey
PIONEER P36A83X	55.1			1.0	30	20	Brown gold
B390EE	54.5			1.0	29	20	Tan grey
NUTECH 36N03E	53.9			1.0	26	28	Gold
PIONEER P33A53X	53.8	57.2		1.0	28	20	Brown gold
STINE 39EA02	53.5	55.6		1.0	28	20	Tan
LG SEEDS LGS3840RX	53.1			1.0	34	20	Tan
ZS3898E3S	51.8			1.0	32	20	Grey
NUTECH 39N04E	51.3			1.0	28	20	Tan
GROUP III AVERAGE	**58.1**	**59.2**	**60.8**	**1.0**	**30 in.**	**Sept. 23rd**	
LSD (0.10)	3.2	2.3	1.8				
C.V.	5.2	5.3	5.0				
MATURITY GROUP IV EARLY (relative MG 4.0-4.5)							
CAVERNDALE CF 423 E3 STSn	**73.5**			1.0	38	36	Tan
STINE 40EB22	70.4			1.0	35	32	Brown Gold
MISSION A4448X	69.7			1.0	38	36	Brown
B459EE	69.1			1.0	32	30	Brown Gold
DYNA-GRO S43EN61	68.8			1.0	35	32	Brown Gold
BLUE RIVER 41DC8	68.6			1.0	39	30	Brown
DM 45X61	68.3			1.0	33	35	Grey
AGRIGOLD G4318RX	68.2			1.3	38	35	Brown
ARMOR 44-D92	68.1	61.8		1.3	39	36	Grey Brown
DYNA-GRO S43XS70	67.8	55.4		1.7	41	40	Brown Tan
B430EE	67.6			2.0	31	30	Brown Gold
GO SOY 433E21	67.1			1.3	33	32	Brown Gold
STINE 41EB32	67.1			1.0	30	30	Brown Gold
PROGENY 4505 RXS	66.9			1.7	40	40	Brown
ARMOR 44-D49	66.4			1.0	37	35	Brown
NUTECH 45N04E	66.3			1.0	31	31	Brown
DYNA-GRO S41ES80	66.2			1.0	27	33	Tan
PROGENY 4241 E3	65.9			1.0	32	30	Brown Gold
AGS GS42X19S	65.7	55.3		1.0	31	31	Tan
CZ 4241GTLL	65.5			1.0	38	30	Brown Gold
LS4565XS	65.4	64.2		1.0	40	35	Brown Gold
LS4583X	65.2	61.7		1.0	33	35	Tan

continued

Agronomic Information – Bluegrass Region, Fayette County

GPS coordinates	38°07'08.9"N, 84°29'22.9"W
Soil type	Silt loam Sand: 10.15% Silt: 70.11% Clay: 19.74% CEC: 26.02meq/100g Plant available water: 25.7% Field capacity water: 45.66% Wilting point water: 19.96%
Slopes	0-6%
Previous crop	corn
Soil test (2/28/2020)	pH 6.02, P 384 lb/a, K 365 lb/a
SCN test	125 (low)
Fertilizer/lime applied	none
Agricultural practice	no-till
Pre-planting herbicides	Canopy, Forfeit 280SL (glufosinate) 4/3/2020; Sharpen, Fierce EZ 4/22/2020
Planting date	5/12/2020
Post-emergence herbicides	FirstRate, Reflex, Fusion 6/20/2019
Harvest dates	MG II: 09/23, MG III: 10/01; MG IV Early, IV Late and V: 10/22
50% frost killing	10/26

Climate – Bluegrass Region, Fayette County

Month	Total Monthly Precip. (in.)	Temperatures: Monthly Average (F)	Temperatures: Highest Recorded (F)	Temperatures: Lowest Recorded (F)
May (5/14-5/31)	5.67	68	91	48
June	3.31	72	91	41
July	4.67	77	95	54
August	4.36	72	91	49
September	3.09	65	90	36
October (10/1-10/23)	2.52	57	82	27

Data source: weather station – on-site

Table 5. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020	PLANT HEIGHT (IN.) 2020	MATURITY DATE 2020	POD COLOR (R8)
DYNA-GRO S45ES10	65.2			1.0	38	33	Brown
LS4299XS	65.2	**69.9**		1.3	33	30	Brown
LG SEEDS LGS4464RX	64.8			1.3	32	35	Brown
PROGENY 4444 RXS	64.4	66.3	68.9	1.7	33	35	Brown
HS 43E00	64.0			1.0	39	33	Brown
CAVERNDALE CF 453 E3	63.5			1.3	30	35	Grey
ARMOR 42-E11	63.4			1.0	33	30	Brown Gold
GO SOY 41C19	63.2			1.0	38	30	Tan
HS 45E00	63.0			1.0	28	36	Tan
ARMOR 44-D19	62.9			1.0	32	30	Brown
PROGENY 4265 RXS	62.9	62.1		1.3	34	35	Brown Gold
USG 7447XTS	62.1			1.7	36	35	Brown Gold
PIONEER P44A72BX	62.0	66.9	66.1	1.3	35	35	Grey
SEED CONSULTANTS SC 7421™	61.9			1.0	36	27	Brown Tan
ASGROW AG43X0	61.5	58.3		1.0	31	35	Tan
NUTECH 43N04E	61.5			1.0	33	30	Brown Gold
B400EE	61.2			1.0	38	35	Gold
NUTECH 41N03E	60.9			1.0	34	30	Brown Tan
STEWART 4527R2X	60.6	65.4	**69.5**	1.0	32	35	Brown Gold
DM 40X61	60.5			1.0	32	35	Grey
AGRIGOLD G4255RX	60.3			1.0	32	35	Brown
PIONEER P42A96X	60.3	55.3	62.7	1.0	32	30	Brown Gold
CHANNEL 4218R2X/SR	59.8	64.7	66.5	1.0	36	35	Brown
ARMOR 44-E44	59.7			1.0	36	40	Gold
HS 41X70	58.9			1.3	35	30	Tan
V 4520 S	58.9			1.0	38	30	Brown
B420EE	58.8			1.3	31	30	Gold
STEWART 4029R2X	58.6	56.2		1.0	31	28	Brown Gold
LS4407X	58.6	61.9		1.0	30	40	Tan
STEWART 4228R2X	58.3	54.0	55.8	1.0	37	32	Brown Gold
CHANNEL 4519R2X/SR	58.2	66.4		1.0	31	35	Brown Gold
V 4220 S	56.9			1.0	34	30	Brown
CZ 4240GTLL	56.6			1.0	31	30	Brown
AGRIGOLD G4190RX	55.9			1.0	34	30	Tan
DYNA-GRO S41XS98	55.6	49.2	55.4	1.0	32	30	Tan
ASGROW AG42X9	54.5	60.8	64.3	1.3	41	30	Brown
UNIVERSITY OF MISSOURI S15-5904RY	50.8			1.7	36	35	Brown Gold
TAYLOR SEED T4400XS	48.7			1.0	36	32	Brown
GROUP IV EARLY AVERAGE	**62.9**	**60.8**	**63.7**	**1.1**	**34 in.**	**Oct. 2nd**	
LSD (0.10)	5.9	3.5	2.6				
C.V.	8.9	7.7	6.8				
MATURITY GROUP IV LATE (relative MG 4.6-4.9)							
STEWART 4927R2X	**69.9**	54.8	60.0	1.0	42	39	Tan
PROGENY 4908 E3S	68.9			1.0	39	42	Grey
PROGENY 4816 RX	66.6	56.0	58.8	1.0	35	40	Tan
UNIVERSITY OF MISSOURI S15-3847R	66.5			1.7	41	40	Brown
HS 49X60	66.3	58.2	58.8	1.0	32	40	Tan
GO SOY 481E19	65.9			1.3	37	38	Tan
BLUE RIVER e4993	65.8	67.5		1.3	37	38	Brown
USG 7470XT	65.8	**70.6**		1.7	37	38	Grey
MISSION A4618X	65.6			1.0	36	39	Grey
USG 7496XTS	65.1	62.8	61.2	1.3	39	38	Brown
LS4999X	65.0	60.7		1.0	34	38	Brown
USG 7461XTS	64.8			1.0	35	40	Tan Gold
PROGENY 4700 RXS	64.4			1.3	33	42	Brown
PIONEER P48A60X	64.3	69.7	**67.3**	1.0	33	40	Tan
ARMOR 48-E81	64.3			1.3	36	38	Gold
DYNA-GRO S46XT80	64.2	62.4		1.3	33	40	Gold
TAYLOR SEED T4990XS XTEND	64.2			1.0	35	38	Gold Tan
NUTECH 46N02E	64.1			1.0	27	38	Gold
B470EE	64.1			1.0	29	42	Tan
PROGENY 4807 E3S	63.9			1.0	31	42	Grey
ARMOR 47-E02	63.8			1.0	36	40	Tan
DYNA-GRO S46ES91	63.8			1.0	34	39	Grey
USG 7489XT	63.6			1.0	31	39	Gold
LG SEEDS LGS4632RX	63.2			1.0	34	40	Brown
AGRIGOLD G4620RX	63.1			1.0	37	40	Tan
DYNA-GRO S48XT90	63.0			1.0	37	40	Tan
BLUE RIVER 49CK9	62.9			1.3	34	38	Brown
PROGENY 4902 E3	62.7			1.0	31	38	Grey
DM 49X13	62.6			1.0	36	40	Tan Gold
PROGENY 4775 E3S	62.2			1.0	35	38	Grey
TAYLOR SEED T4641ES	62.0			1.3	34	40	Gold
ARMOR 49-D14	61.8			1.3	34	40	Tan Gold

continued

Table 5. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020	PLANT HEIGHT (IN.) 2020	MATURITY DATE 2020	POD COLOR (R8)
HS 48E00	61.7			1.0	30	38	Grey
ASGROW AG48X7	61.3			1.3	35	42	Tan
PIONEER P46A86X	61.3			1.0	40	38	Brown Grey
PROGENY 4821 RX	61.2	58.8		1.3	34	42	Brown
PROGENY 4851 RX	61.2			1.7	35	40	Tan
CAVERNDALE CF 473 E3 STSn	60.8			1.3	38	40	Grey
DYNA-GRO S48XT56	60.3	66.9	65.5	1.0	34	38	Gold
ARMOR 46-D09	60.0	57.3		1.0	36	40	Tan
MISSION A4828X	59.7			1.7	43	40	Grey
UNIVERSITY OF MISSOURI S16-7875C	59.7			2.3	40	42	Gold
LS4607XS	59.4			1.0	36	38	Gold
ASGROW AG47X9	58.9	57.9	63.2	1.0	32	40	Brown
GO SOY 463E20S	58.4			1.0	36	40	Grey
HS 46X90	58.3	61.7		1.3	33	38	Grey
UNIVERSITY OF MISSOURI S16-14730C	58.0			1.0	35	39	Tan
PROGENY 4970 RX	57.9			1.3	34	42	Tan Gold
ARMOR 46-E50	57.9			1.0	33	39	Gold
STINE 46EB22	57.6			1.0	35	40	Tan
UNIVERSITY OF MISSOURI S16-7922C	56.8			3.0	51	42	Gold
B460EE	56.7			1.0	32	42	Grey
GO SOY 48C17S	56.7	50.2		2.3	44	40	Gold
AGS GS47X19	56.7			1.0	35	40	Tan Gold
UNIVERSITY OF MISSOURI S16-11644C	56.1			2.7	40	50	Gold
CZ 4810X	56.1			1.3	35	38	Grey
LS4706GL	56.0			1.0	36	40	Grey
UNIVERSITY OF MISSOURI S16-14379C	55.7			1.0	35	42	Gold
CAVERNDALE CF 461 LL/GT27/STSn	55.6			1.0	32	40	Brown
PROGENY 4602 LR	55.6			1.0	28	38	Tan
UNIVERSITY OF MISSOURI S16-5540R	55.5			2.3	46	42	Gold
ARMOR 48-D25	55.4	62.0		1.0	31	42	Tan
UNIVERSITY OF MISSOURI S15-3772RY	55.2			1.3	41	38	Tan
LS4806XS	55.1			1.0	32	40	Gold
TAYLOR SEED T4880X XTEND	55.0			1.0	28	40	Tan
MISSION A4950X	55.0			1.3	41	39	Gold Tan
PROGENY 4620 RXS	55.0	59.4	58.9	1.0	35	40	Gold
V 4921 S	54.8			1.0	32	42	Tan
LG SEEDS LGS4899RX	54.8	61.3		1.0	33	38	Tan Gold
PROGENY 4682 E3	54.6			1.0	33	40	Grey
DM 48E73	54.2			1.0	29	38	Tan
CZ 4770X	53.9			1.0	33	42	Gold
CZ 4730X	52.9			1.3	28	39	Gold
STINE 48EB02	52.4			1.0	30	37	Gold
LS4795XS	51.8	50.0		1.0	31	38	Gold
DYNA-GRO S46XS60	50.2	57.4		1.0	41	38	Brown
DYNA-GRO S4751STS	50.2			1.0	30	40	Tan
ASGROW AG48X9	48.8	55.5	59.5	1.0	34	39	Tan
ASGROW AG46X0	47.1	48.2		1.3	36	40	Gold
PENNYRILE (long term check-released 1987)	47.0	44.9	45.3	1.7	43	40	Gold
GROUP IV LATE AVERAGE	**59.5**	**58.9**	**59.9**	**1.2**	**35 in.**	**Oct. 10th**	
LSD (0.10)	3.6	3.0	2.2				
C.V.	5.7	5.3	4.8				
MATURITY GROUP V (relative MG 5.0-5.9)							
PROGENY 5170 RX	**70.6**	**72.0**		1.3	37	42	Brown
ARMOR 50-D50	67.9			1.0	39	42	Gold Brown
ZS5098E3	66.7			1.0	43	40	Grey Brown
ARMOR 51-E53	66.4			1.0	44	42	Grey
PROGENY 5016 RXS	66.0	69.7	**64.3**	1.3	36	43	Gold Brown
UNIVERSITY OF MISSOURI S16-15170C	63.5			1.0	38	52	Brown
LS5087X	63.3	66.4		1.0	38	40	Tan
LS5386X	61.9			1.0	37	43	Brown
PROGENY 5211 E3	61.8			1.0	34	39	Grey
PROGENY 5252 RX	61.1	62.9	56.1	1.0	36	50	Brown
LS5009XS	58.3			1.0	36	40	Tan
UNIVERSITY OF MISSOURI S16-3747R	57.0			2.0	48	50	Brown
UNIVERSITY OF MISSOURI S16-11651C	56.3			2.7	45	50	Gold
UNIVERSITY OF MISSOURI S16-3739RY	56.0			2.0	51	46	Grey
ESSEX (long term check-released 1974)	54.1	55.6	48.8	1.3	37	42	Tan
UNIVERSITY OF MISSOURI S16-15809C	51.0			3.0	52	50	Gold
GROUP V AVERAGE	**61.4**	**65.3**	**56.4**	**1.4**	**41 in.**	**Oct. 14th**	
LSD (0.10)	3.6	2.4	1.8				
C.V.	5.5	5.1	4.8				

[A] *Within a maturity group, shaded yield are not significantly different (0.10) from the highest yielding cultivar (bold) of that maturity group and year column.*

[B] *The 2018-2020 yield data were collected at the University of Kentucky Spindletop Research Farm in Fayette Co., KY.*

Table 6. 2020 Kentucky Soybean Variety Performance Tests - Green River Region, Muhlenberg and Hancock Counties

	YIELD (BU/AC)[A/B]					DISEASES (Hancock Co.)[C]	
BRAND VARIETY	2020 Hancock	2020 Muhlenberg	2019-2020	2018-2020	LODGING 2020	Fogeye Leaf Spot (% of leaf surface)	SDS Index (0-100)
MATURITY GROUP II (relative MG 2.0-2.9)							
ASGROW AG29X9	**42.9**	**69.9**	50.8		1.7	0.7	0.0
AGRIGOLD G2900RX	40.9	61.3	**52.6**	47.1	2.5	0.3	0.0
GROUP II AVERAGE	**41.9**	**65.6**	**51.7**	**47.1**	**2.1**		
LSD (0.10)	2.7	7.1	2.1			NS	NS
C.V.	2.7	4.5	4.6			163.3	NS
MATURITY GROUP III (relative MG 3.0-3.9)							
NUTECH 39N04E	**62.9**	66.9			1.2	1.7	4.9
ASGROW AG37X9	62.0	72.3	66.7	**61.4**	3.0	3.7	0.0
ARMOR 39-D30	59.7	72.3			4.3	2.0	0.0
STEWART 3830R2X	59.0	71.6	66.2		1.8	0.7	0.1
STEWART 3628R2X	57.8	69.1	64.4		2.5	1.0	0.6
B390EE	57.6	68.8			1.8	0.0	0.0
LS3976X	57.6	66.3	64.5		2.8	1.7	0.0
ASGROW AG39X0	55.5	69.4	63.6		2.0	1.0	0.0
ASGROW AG39X7	54.5	65.4	64.1	59.5	1.5	0.7	0.0
AGRIGOLD G3620RX	54.2	64.3	57.8		2.0	0.0	0.0
DYNA-GRO S39EN19	54.1	67.1	62.8		1.5	0.0	0.0
SEED CONSULTANTS SC 7381E™	54.0	67.4			1.0	0.0	0.1
ASGROW AG36X6	53.4	63.7			2.2	0.3	0.0
PIONEER P36A83X	53.2	**79.3**			2.0	3.3	0.0
DYNA-GRO S38XS21	52.1	65.0			2.2	0.0	0.0
ASGROW AG33X0	51.2	63.6			1.3	0.0	0.0
NUTECH 36N03E	51.1	63.9			1.7	0.0	0.1
AGRIGOLD G3722RX	51.1	70.6	**67.0**	57.8	3.3	0.0	0.0
LG SEEDS LGS3600RX	50.9	67.8			2.2	0.0	0.4
ZS3898E3S	50.8	66.9			2.3	0.3	0.0
PIONEER P39A58X	50.8	66.3			1.7	0.0	0.0
ASGROW AG38X8	50.7	60.6	56.9	54.4	1.7	0.0	0.0
AGRIGOLD G3850RX	50.2	71.6	61.8		2.7	2.0	0.4
SEED CONSULTANTS SC 8399X™	49.6	60.7	61.2	56.3	2.8	1.0	0.0
LS3906GL	49.0	71.1			3.3	0.0	0.3
PIONEER P33A53X	48.5	61.9	57.8		1.0	0.7	0.4
LG SEEDS LGS3840RX	47.5	73.5			1.8	0.3	0.0
CHANNEL 3821R2X/SR	47.4	65.3			2.8	0.0	0.0
STINE 39EA02	46.6	68.1	58.4		1.5	0.0	0.2
SEED CONSULTANTS SC 3399L™	46.5	67.7	60.4		2.8	0.0	0.0
LG SEEDS LGS3733RX	46.4	65.3			2.5	0.0	0.0
PIONEER P31A22X	45.8	63.2	57.9		3.0	2.0	0.4
SEED CONSULTANTS SCS 9393RR™	45.6	57.7	56.1	52.9	1.2	0.0	0.0
DYNA-GRO S3961STS	45.1	71.4			1.0	0.3	0.3
GO SOY 38E21S	44.8	67.8			1.7	0.0	0.0
B389EE	41.8	68.5			1.0	0.0	0.0
NUTECH 39N05E	41.7	71.1			1.7	0.0	2.0
CAVERNDALE CF 383 E3 STSn	38.0	67.1			1.0	0.3	0.0
GROUP III AVERAGE	**51.0**	**67.4**	**61.6**	**57.1**	**2.1**		
LSD (0.10)	4.1	4.9	2.5	2.0		1.6	NS
C.V.	6.0	5.4	5.4	5.1		198.6	454.5
MATURITY GROUP IV EARLY (relative MG 4.0-4.5)							
PROGENY 4241 E3	**76.0**	57.9			1.0	0.0	5.6
SEED CONSULTANTS SC 7421™	74.5	62.4			2.2	0.0	0.0
DYNA-GRO S45ES10	73.5	70.2			2.2	4.7	0.0
NUTECH 45N04E	72.7	64.9			2.2	0.0	0.0
ASGROW AG43X0	72.2	64.8	64.0		1.7	1.7	0.1
ARMOR 44-D19	71.4	63.6			2.2	2.0	0.0
STEWART 4527R2X	70.7	68.9	67.5	**64.2**	1.8	1.7	0.2
NUTECH 43N04E	70.5	68.3			2.0	0.0	0.1
LS4407X	70.0	53.8	60.9		2.7	1.3	8.1
LG SEEDS LGS4464RX	69.9	71.2			2.0	0.7	0.0
PROGENY 4444 RXS	69.4	67.7	64.5	59.7	3.5	0.0	0.0
CHANNEL 4519R2X/SR	69.2	68.9	**68.0**		2.2	0.3	0.5
PIONEER P44A72BX	68.6	64.0	64.1	60.6	2.0	0.0	0.7
AGRIGOLD G4318RX	68.4	70.7			2.2	1.7	2.2
MISSION A4448X	68.4	58.0			1.7	0.0	2.0
USG 7447XTS	66.5	58.9			1.8	1.0	3.1
LS4299XS	66.1	55.1	59.3		2.0	1.3	0.5
ARMOR 44-E44	66.1	72.7			1.8	0.0	0.3
NUTECH 41N03E	65.9	58.1			1.8	0.7	0.0
B420EE	65.9	61.6			2.8	0.0	0.0
HS 45E00	65.3	70.9			2.0	0.0	0.2
TAYLOR SEED T4400XS	63.7	69.2			2.2	0.7	4.0
B400EE	63.7	56.9			1.0	0.0	0.0
CZ 4240GTLL	63.4	55.7			1.0	0.3	0.0

continued

Table 6. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020 Hancock	2020 Muhlenberg	2019-2020	2018-2020	LODGING 2020	DISEASES (Hancock Co.)[C] Fogeye Leaf Spot (% of leaf surface)	SDS Index (0-100)
DYNA-GRO S41ES80	63.4	59.4			2.0	0.0	0.0
ARMOR 44-D49	63.1	73.6			3.3	0.0	0.5
V 4520 S	62.1	54.9			2.0	0.7	8.3
PROGENY 4505 RXS	61.9	67.2			2.8	0.0	30.4
DYNA-GRO S41XS98	61.8	67.7	61.2	56.1	2.2	1.7	0.0
HS 41X70	61.6	64.0			1.5	1.0	0.0
ARMOR 44-D92	61.6	67.7	63.1		2.0	1.3	0.0
AGRIGOLD G4255RX	61.6	68.6			2.3	0.0	0.0
CHANNEL 4218R2X/SR	61.4	65.7	62.2	59.7	2.5	2.3	0.0
B430EE	60.8	59.9			3.2	0.0	0.0
DM 45X61	60.2	**75.0**			3.0	0.0	24.8
STEWART 4228R2X	60.2	70.4	64.9	63.1	2.3	1.3	0.4
AGRIGOLD G4190RX	60.1	61.8			1.8	0.3	0.0
DYNA-GRO S43XS70	60.0	65.9	59.4		2.0	0.0	0.0
DYNA-GRO S43EN61	59.7	63.3			2.2	0.0	0.0
V 4220 S	59.3	66.4			2.5	0.0	0.0
LS4583X	58.4	64.4	63.2		1.5	0.3	0.0
STEWART 4029R2X	58.3	59.5	64.8		2.0	0.0	4.4
AGS GS42X19S	57.9	58.3	57.2		1.2	0.3	0.0
DM 40X61	57.6	66.0			2.7	0.3	0.4
ASGROW AG42X9	57.1	54.5	59.8	56.8	2.7	0.3	0.0
PROGENY 4265 RXS	57.0	66.1	62.7		2.5	0.3	2.9
CAVERNDALE CF 453 E3	56.6	63.3			3.2	1.0	0.1
CZ 4241GTLL	56.3	71.5			1.7	0.0	0.3
ARMOR 42-E11	56.0	56.7			2.7	0.0	0.4
PIONEER P42A96X	55.1	62.2	60.2	59.0	1.7	0.0	5.8
LS4565XS	54.9	60.3	60.7		2.7	0.0	26.8
BLUE RIVER 41DC8	54.5	57.5			1.0	0.0	8.1
HS 43E00	54.3	66.6			3.2	0.0	0.0
CAVERNDALE CF 423 E3 STSn	54.2	67.2			2.0	0.0	3.4
STINE 40EB22	53.2	67.9			2.3	0.0	2.4
GO SOY 41C19	53.1	60.1			3.2	0.3	4.5
STINE 41EB32	52.8	69.7			2.2	0.0	9.3
B459EE	52.6	58.3			1.5	0.0	0.1
GO SOY 433E21	51.5	70.9			3.8	0.0	0.7
UNIVERSITY OF MISSOURI S15-5904RY	51.4	52.1			2.8	0.0	0.9
GROUP IV EARLY AVERAGE	**62.1**	**64.0**	**62.5**	**59.9**	**2.2**		
LSD (0.10)	5.5	4.7	2.8	2.4		1.5	9.2
C.V.	6.5	5.4	5.6	5.8		225.8	234.5
MATURITY GROUP IV LATE (relative MG 4.6-4.9)							
DYNA-GRO S48XT56	**65.0**	66.4	**66.6**	64.8	2.2	1.3	0.0
TAYLOR SEED T4990XS XTEND	64.2	63.4			2.0	2.0	0.6
USG 7496XTS	63.6	59.7	62.5	60.0	2.0	2.0	1.8
ASGROW AG48X9	62.8	64.1	62.1	62.0	1.5	1.7	0.0
PIONEER P46A86X	62.1	63.8			2.2	0.0	0.4
DYNA-GRO S48XT90	61.9	68.9			4.0	0.0	0.1
CZ 4730X	61.8	61.7			1.7	3.3	0.0
USG 7461XTS	61.2	68.0			3.3	4.7	0.0
DYNA-GRO S4751STS	60.8	62.4			1.8	1.0	0.2
LS4607XS	60.7	62.8			3.0	0.0	1.9
CZ 4770X	60.6	63.3			3.2	0.0	0.0
ASGROW AG46X0	59.6	66.6	59.5		1.5	1.3	0.1
UNIVERSITY OF MISSOURI S16-7922C	59.5	63.1			4.8	0.3	0.0
LS4795XS	59.5	65.3	59.8		1.7	4.7	3.0
HS 49X60	59.3	65.5	61.2	56.9	1.8	2.3	0.0
ASGROW AG48X7	59.0	66.8			2.3	1.3	0.1
LG SEEDS LGS4899RX	58.9	67.5	62.2		1.8	3.0	1.2
DM 49X13	58.6	60.4			3.0	0.0	11.2
ARMOR 46-E50	58.2	65.0			1.5	4.3	0.0
ARMOR 48-D25	58.2	66.4	62.7		1.8	1.3	0.3
PROGENY 4816 RX	58.0	66.0	57.6	59.0	1.5	1.0	0.0
TAYLOR SEED T4641ES	57.9	**71.5**			2.5	2.7	1.7
USG 7489XT	57.7	65.1			1.5	2.3	0.0
PROGENY 4700 RXS	57.6	61.8			3.5	0.0	1.3
AGS GS47X19	57.5	58.9			3.0	0.0	7.1
TAYLOR SEED T4880X XTEND	57.5	56.6			1.3	0.7	0.3
ARMOR 46-D09	57.4	62.1	59.4		2.2	2.7	0.0
PROGENY 4682 E3	57.4	61.8			2.3	0.3	5.2
CZ 4810X	57.4	65.6			3.0	1.3	0.7
B470EE	57.1	62.6			2.7	1.0	0.0
ASGROW AG47X9	57.0	65.3	64.7	62.3	1.5	0.3	0.0
CAVERNDALE CF 461 LL/GT27/STSn	56.9	62.4			2.8	0.3	0.4
DYNA-GRO S46XS60	56.6	63.4	58.6		1.8	2.3	0.0
GO SOY 48C17S	56.3	57.0	58.5		3.5	0.0	6.8
AGRIGOLD G4620RX	56.2	69.8			2.5	4.0	0.8

continued

Table 6. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020 Hancock	2020 Muhlenberg	2019-2020	2018-2020	LODGING 2020	DISEASES (Hancock Co.)[C] Fogeye Leaf Spot (% of leaf surface)	SDS Index (0-100)
LS4806XS	56.2	66.2			1.8	1.3	0.3
V 4921 S	56.2	67.4			2.7	0.0	2.8
PIONEER P48A60X	56.1	66.1	63.8	62.2	2.7	3.7	0.5
NUTECH 46N02E	56.0	63.9			1.7	1.0	0.0
UNIVERSITY OF MISSOURI S16-14379C	55.8	56.0			2.0	2.7	2.2
LG SEEDS LGS4632RX	55.6	66.7			3.8	1.7	0.6
LS4706GL	55.3	57.9			2.0	6.7	0.0
DM 48E73	54.5	64.5			2.0	2.0	0.0
UNIVERSITY OF MISSOURI S16-5540R	54.5	59.1			4.8	0.3	0.1
BLUE RIVER 49CK9	54.3	59.8			1.8	1.7	0.0
UNIVERSITY OF MISSOURI S15-3772RY	54.2	55.9			2.2	1.7	0.9
BLUE RIVER e4993	54.2	58.8	57.4		2.8	0.0	0.4
MISSION A4618X	54.0	66.0			3.0	0.0	4.7
PROGENY 4775 E3S	53.8	69.6			1.5	5.0	8.0
LS4999X	53.4	63.2	62.1		2.3	0.0	1.2
PROGENY 4851 RX	53.3	64.2			4.5	0.7	0.1
PROGENY 4620 RXS	53.3	62.8	60.5	61.6	3.0	0.3	0.1
HS 46X90	52.7	68.7	61.6		1.8	2.0	0.0
PROGENY 4970 RX	52.3	60.2			2.7	1.7	3.7
USG 7470XT	51.6	64.3	58.8		2.8	1.3	0.3
DYNA-GRO S46XT80	51.6	62.1	56.1		2.5	0.3	0.0
UNIVERSITY OF MISSOURI S16-7875C	51.4	61.5			5.0	0.0	0.0
DYNA-GRO S46ES91	51.1	61.9			1.8	7.0	1.3
UNIVERSITY OF MISSOURI S16-14730C	51.0	60.5			2.2	2.7	3.1
PROGENY 4902 E3	51.0	66.9			3.3	0.3	0.6
MISSION A4950X	50.9	62.0			3.5	2.0	2.3
ARMOR 47-E02	50.8	61.1			2.3	5.3	0.0
ARMOR 49-D14	50.1	65.1			3.3	0.3	0.4
MISSION A4828X	50.1	63.3			3.2	5.3	3.5
PROGENY 4821 RX	49.8	66.9	59.0	58.2	2.5	5.0	1.9
STEWART 4927R2X	48.8	66.7			2.5	0.0	0.4
HS 48E00	48.6	65.3			3.2	0.0	14.3
GO SOY 463E20S	48.6	58.8			2.7	5.0	12.8
CAVERNDALE CF 473 E3 STSn	48.1	57.8			1.8	5.0	0.4
UNIVERSITY OF MISSOURI S16-11644C	47.9	66.1			5.0	0.0	0.0
PROGENY 4602 LR	47.7	63.5			1.5	6.7	0.2
ARMOR 48-E81	46.9	56.0			4.2	0.0	1.5
B460EE	46.3	63.4			3.3	0.0	0.4
STINE 48EB02	44.9	59.7			2.2	0.0	10.0
PROGENY 4807 E3S	44.5	64.2			4.2	0.0	0.6
PROGENY 4908 E3S	43.9	49.1			2.0	3.3	14.1
UNIVERSITY OF MISSOURI S15-3847R	43.7	54.5			3.8	2.7	3.6
STINE 46EB22	42.1	62.2			1.7	5.0	0.4
GO SOY 481E19	41.7	61.3			1.7	2.0	11.1
PENNYRILE (long term check-released 1987)	40.3	49.3	44.5	42.5	2.5	5.3	1.2
GROUP IV LATE AVERAGE	**54.4**	**62.9**	**60.0**	**59.0**	**2.6**		
LSD (0.10)	4.7	4.7	2.6	2.3		3.7	NS
C.V.	6.4	5.5	5.8	5.8		145.7	314.6
MATURITY GROUP V (relative MG 5.0-5.9)							
UNIVERSITY OF MISSOURI S16-3739RY	**60.9**	68.1			4.7	0.0	0.4
PROGENY 5016 RXS	59.5	65.3	**60.3**	**61.7**	1.7	2.0	0.0
UNIVERSITY OF MISSOURI S16-3747R	57.5	56.5			4.5	18.3	0.0
UNIVERSITY OF MISSOURI S16-15809C	57.0	59.9			3.5	1.7	4.0
UNIVERSITY OF MISSOURI S16-15170C	55.8	66.7			1.5	0.0	5.9
UNIVERSITY OF MISSOURI S16-11651C	55.1	57.3			4.3	0.0	0.1
ARMOR 50-D50	53.9	**72.7**			3.3	4.3	0.0
LS5009XS	52.8	61.6			2.7	8.3	0.0
LS5386X	51.0	66.3			2.2	1.3	6.9
ESSEX (long term check-released 1974)	50.0	53.8	47.5	46.3	3.2	2.0	0.7
PROGENY 5170 RX	49.9	60.8	57.2		3.0	5.7	0.2
PROGENY 5211 E3	49.0	71.1			3.0	0.0	2.6
ARMOR 51-E53	47.0	68.0			2.8	2.7	0.0
LS5087X	46.1	68.8	55.7		3.7	0.7	6.2
ZS5098E3	44.3	54.9			2.7	2.3	16.4
PROGENY 5252 RX	40.8	58.9	51.0	51.9	1.8	0.3	19.9
GROUP V AVERAGE	**51.9**	**63.2**	**54.3**	**53.3**	**3.0**		
LSD (0.10)	4.7	5.5	2.8	2.4		2.9	NS
C.V.	6.6	6.3	6.3	6.2		70.1	209.3

A Within a maturity group, shaded yield are not significantly different (0.10) from the highest yielding cultivar (bold) of that maturity group and year column.

B The 2020 yield data were collected at the Hancock Co., KY andMuhlenberg Co., KY test sites, the 2019 data at the McLean Co., KY test site, and the 2018 data at the Henderson Co., KY test site.

C Significant Frogeye Leaf Spot and Sudden Death Syndrome (SDS) disease pressure was observed at the test site in Hancock County in 2020. Disease ratings were performed by Dr. Carl Bradley, Pr. and Extension Plant Pathologist, and Ms. Kelsey Meh, Agriculture Extension Associate.

Agronomic Information – Green River Region, Hancock County

GPS coordinates	37°54'39.1"N, 86°46'20.0"W
Soil type	Silt loam Sand: 35.55%, Silt: 50.6%, Clay: 13.85% CEC: 7.78meq/100g Plant available water: 20.71% Field capacity water: 31.25% Wilting point water: 10.54%
Slopes	0-6%
Previous crop	Corn
Soil test (2/20/2020)	pH 5.87, P 365 lb/a, K 344 lb/a
SCN test	4,500 (moderate)
Fertilizer/lime applied	NA
Agricultural practice	no-till
Pre-emergence herbicides	Sterling Blue, Cornerstone 5 Plus, BroadAxe XC 05/12/2020
Planting date	06/08/2020
Post-emergence herbicides	MadDog Plus 06/08/2020, Forfeit 280SL 06/11/2020
Harvest dates	MG II, III & V: 11/02; MG IV Early & IV Late: 11/03
50% frost killing	10/20

Agronomic Information – Green River Region, Muhlenberg County

GPS coordinates	37°21'06.3"N 87°17'56.1"W
Soil type	Silt loam Sand: 9.35%, Silt: 80.69%, Clay: 9.97% CEC: 7.64 meq/100g Plant available water: 27.03% Field capacity water: 36.5% Wilting point water: 9.47%
Slopes	0-2%, occasionally flooded
Previous crop	Corn
Soil test (05/15/2020)	pH 6.14, P 87 lb/a, K 206 lb/a
SCN test	250 (low)
Fertilizer/lime applied	NA
Agricultural practice	till, roll
Pre-emergence herbicides	Glyphosate, Dual II magnum (early June)
Planting date	06/13/2020
Post-emergence herbicides	Basagran 5L, Reflex, Warrant, Fusion (07/24/2020)
Harvest dates	MG II & III: 10/17; MG IV Late & V: 11/8; MG IV Early: 11/9
50% frost killing	10/22

Climate – Green River Region, Hancock County

Month	Total Monthly Precip. (in.)	Temperatures		
		Monthly Average (F)	Highest Recorded (F)	Lowest Recorded (F)
June (6/8-6/30)	4.82	75	92	63
July	2.07	79	95	62
August	5.90	74	92	56
September	4.01	68	90	44
October	5.46	57	86	32
November (11/1-11/3)	0	42	56	25

Data source: weather station – on-site

Climate – Green River Region, Muhlenberg County

Month	Total Monthly Precip. (in.)	Temperatures		
		Monthly Average (F)	Highest Recorded (F)	Lowest Recorded (F)
June (6/13-6/30)	8.0	73	90	53
July	5.4	79	92	62
August	1.9	76	93	58
September	5.3	69	88	45
October	4.2	58	85	32
November (11/1-11/9)	0	56	83	26

Data source: KY Mesonet – Greenville station

Table 7. 2020 Kentucky Soybean Variety Performance Tests - Lake Cumberland Region, Cumberland County

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2017-2020	LODGING 2020
MATURITY GROUP II (relative MG 2.0-2.9)				
AGRIGOLD G2900RX	**67.6**	74.5		1.7
ASGROW AG29X9	67.4	69.1		1.0
GROUP II AVERAGE	**67.5**	**71.8**		**1.3**
LSD (0.10)	2.2	1.6		
C.V.	2.1	2.7		
MATURITY GROUP III (relative MG 3.0-3.9)				
STINE 39EA02	**88.7**	83.9		1.7
ASGROW AG38X8	86.4	81.8	68.8	2.0
SEED CONSULTANTS SC 3399L™	84.7	87.7		3.3
AGRIGOLD G3722RX	83.5	85.8		1.7
LS3976X	82.9	**90.2**		1.7
STEWART 3628R2X	82.8	80.9		1.7
ASGROW AG37X9	82.3	88.6		2.3
AGRIGOLD G3850RX	82.1	80.2		2.3
PIONEER P36A83X	81.4			1.3
ZS3898E3S	81.3			1.7
B390EE	81.3			1.3
DYNA-GRO S38XS21	80.1			1.3
ASGROW AG39X0	79.7	86.1		1.7
ASGROW AG39X7	79.2	78.7	**69.6**	1.3
LG SEEDS LGS3840RX	79.1			1.3
DYNA-GRO S3961STS	78.8			1.0
CHANNEL 3821R2X/SR	77.9			2.7
LS3906GL	77.6			1.3
SEED CONSULTANTS SC 7381E™	77.5			1.3
SEED CONSULTANTS SCS 9393RR™	77.4	83.9	69.3	1.0
CAVERNDALE CF 383 E3 STSn	77.0			1.0
AGRIGOLD G3620RX	76.3	78.1		2.3
NUTECH 39N05E	76.0			1.7
ARMOR 39-D30	75.9			2.7
SEED CONSULTANTS SC 8399X™	75.8	75.4		2.7
ASGROW AG36X6	75.4			1.0
DYNA-GRO S39EN19	74.7	75.2		1.3
PIONEER P39A58X	74.5			1.7
LG SEEDS LGS3600RX	74.3			1.0
LG SEEDS LGS3733RX	73.8			2.0
B389EE	72.9			1.7
GO SOY 38E21S	72.8			1.3
ASGROW AG33X0	72.6			2.3
NUTECH 36N03E	72.3			1.0
NUTECH 39N04E	72.3			1.0
PIONEER P33A53X	71.0	71.6		1.7
STEWART 3830R2X	70.1	72.1		2.0
PIONEER P31A22X	66.8	72.3		3.0
GROUP III AVERAGE	**77.6**	**80.7**	**69.2**	**1.7**
LSD (0.10)	5.3	3.5	2.8	
C.V.	5.0	4.6	5.3	
MATURITY GROUP IV EARLY (relative MG 4.0-4.5)				
DM 45X61	**86.8**			3.3
NUTECH 43N04E	86.5			2.0
USG 7447XTS	85.6			1.7
CZ 4240GTLL	84.6			1.0
AGRIGOLD G4255RX	83.7			2.0
PROGENY 4444 RXS	83.4	83.8	**78.8**	3.0
BLUE RIVER 41DC8	81.8			1.3
B430EE	81.5			2.7
DYNA-GRO S43XS70	81.2	85.7		1.7
ARMOR 44-D19	80.9			2.7
STINE 41EB32	80.6			2.0
HS 41X70	80.1			2.3
AGRIGOLD G4190RX	80.0			1.7
MISSION A4448X	79.7			2.7
GO SOY 433E21	79.1			4.3
ARMOR 44-D49	78.9			3.7
CHANNEL 4218R2X/SR	78.8	88.1		1.7
DYNA-GRO S41XS98	78.7	84.3	73.9	2.0
DYNA-GRO S43EN61	78.6			2.0
LG SEEDS LGS4464RX	77.8			2.3
PIONEER P44A72BX	77.8	81.3		3.0
ARMOR 44-E44	77.8			2.0

continued

Table 7. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2017-2020	LODGING 2020
ARMOR 42-E11	77.7			2.7
PROGENY 4265 RXS	77.4	**90.8**		1.7
LS4299XS	77.4	82.2		2.0
PIONEER P42A96X	77.3	82.3		1.3
DYNA-GRO S45ES10	77.3			2.0
CZ 4241GTLL	77.3			1.7
HS 43E00	77.2			2.0
TAYLOR SEED T4400XS	76.8			2.0
NUTECH 45N04E	76.8			1.7
B459EE	76.8			1.7
CAVERNDALE CF 453 E3	76.6			2.0
CAVERNDALE CF 423 E3 STSn	76.3			2.0
V 4520 S	76.2			2.0
AGRIGOLD G4318RX	76.0			2.0
LS4565XS	75.9	83.5		3.0
GO SOY 41C19	75.8			2.7
B400EE	75.7			1.7
DM 40X61	75.4			2.0
HS 45E00	75.3			1.3
B420EE	75.2			2.3
STEWART 4228R2X	75.0	85.0	75.7	2.7
NUTECH 41N03E	74.9			1.7
STINE 40EB22	74.5			1.7
DYNA-GRO S41ES80	74.4			1.3
ASGROW AG42X9	74.1	84.5		3.0
V 4220 S	73.5			2.3
ASGROW AG43X0	73.1	85.0		2.7
PROGENY 4505 RXS	72.7			3.3
LS4583X	72.6	76.2		2.3
STEWART 4527R2X	72.0	82.5	72.3	2.3
STEWART 4029R2X	72.0	75.7		2.0
LS4407X	71.9	80.7		3.0
SEED CONSULTANTS SC 7421™	71.7			2.3
ARMOR 44-D92	71.4	82.1		2.0
PROGENY 4241 E3	71.2			1.7
AGS GS42X19S	68.7	78.9		1.7
CHANNEL 4519R2X/SR	68.6	83.0		2.0
UNIVERSITY OF MISSOURI S15-5904RY	62.4			3.0
GROUP IV EARLY AVERAGE	**76.8**	**82.9**	**75.2**	**2.2**
LSD (0.10)	4.5	3.3	2.7	
C.V.	4.3	4.3	5.1	
MATURITY GROUP IV LATE (relative MG 4.6-4.9)				
USG 7461XTS	**82.2**			3.3
B470EE	82.0			2.0
B460EE	81.7			3.0
MISSION A4618X	80.3			2.0
PROGENY 4807 E3S	80.0			3.3
DYNA-GRO S46XS60	79.2	91.5		1.7
ARMOR 48-D25	78.7	87.8		1.7
USG 7470XT	78.6	84.7		2.0
MISSION A4828X	78.4			3.0
ASGROW AG46X0	78.4	84.7		1.7
BLUE RIVER 49CK9	78.3			2.3
HS 48E00	77.3			3.0
PROGENY 4816 RX	77.2	**92.1**	84.4	1.3
USG 7489XT	76.8			1.3
PIONEER P46A86X	76.7			2.3
PROGENY 4602 LR	76.6			1.7
PROGENY 4851 RX	76.5			3.7
ARMOR 46-E50	76.4			1.7
CAVERNDALE CF 473 E3 STSn	76.3			1.7
LG SEEDS LGS4632RX	76.1			2.3
ASGROW AG47X9	76.0	78.3		1.7
PIONEER P48A60X	75.8	78.8		2.7
LG SEEDS LGS4899RX	75.6	85.6		1.7
ARMOR 49-D14	75.2			3.0
LS4607XS	75.2			2.7
ARMOR 47-E02	75.2			1.7
HS 46X90	74.7	82.2		2.0
AGS GS47X19	74.4			1.7
PROGENY 4682 E3	74.4			2.3
PROGENY 4970 RX	74.4			2.7
NUTECH 46N02E	74.4			1.3
BLUE RIVER e4993	74.4	78.8		2.3

continued

Table 7. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2017-2020	LODGING 2020
STEWART 4927R2X	74.3	79.8	80.3	2.0
DM 49X13	74.2			2.7
ASGROW AG48X7	74.2			1.3
MISSION A4950X	74.0			2.0
ASGROW AG48X9	73.9	81.4		1.0
V 4921 S	73.9			2.3
LS4806XS	73.9			1.0
DM 48E73	73.8			1.0
STINE 48EB02	73.7			2.0
AGRIGOLD G4620RX	73.5			1.7
UNIVERSITY OF MISSOURI S16-14730C	73.3			2.3
USG 7496XTS	73.0	80.5	79.5	2.0
LS4999X	72.9	72.6		1.7
PROGENY 4902 E3	72.8			4.3
DYNA-GRO S4751STS	72.7			1.7
TAYLOR SEED T4880X XTEND	72.6			1.0
LS4706GL	72.5			1.3
HS 49X60	72.4	83.9	**84.7**	1.7
PROGENY 4775 E3S	72.3			1.3
ARMOR 48-E81	72.0			2.3
LS4795XS	71.1	78.6		1.3
PROGENY 4620 RXS	71.1	77.6	77.7	4.3
CAVERNDALE CF 461 LL/GT27/STSn	70.8			3.0
ARMOR 46-D09	70.6	82.9		2.0
CZ 4730X	70.4			2.3
CZ 4810X	70.0			2.3
PROGENY 4821 RX	69.3	67.1		1.0
UNIVERSITY OF MISSOURI S15-3772RY	68.8			2.0
GO SOY 463E20S	68.7			2.0
DYNA-GRO S46XT80	68.5	76.5		2.0
GO SOY 48C17S	68.3	77.8		3.0
PROGENY 4700 RXS	68.0			3.3
GO SOY 481E19	67.9			1.3
DYNA-GRO S46ES91	67.0			2.0
PROGENY 4908 E3S	66.8			2.0
DYNA-GRO S48XT90	66.6			2.3
UNIVERSITY OF MISSOURI S16-14379C	66.3			2.3

continued

Table 7. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2017-2020	LODGING 2020
CZ 4770X	65.9			2.0
TAYLOR SEED T4641ES	65.8			1.3
TAYLOR SEED T4990XS XTEND	65.5			2.7
STINE 46EB22	65.4			1.3
UNIVERSITY OF MISSOURI S16-11644C	64.6			3.7
UNIVERSITY OF MISSOURI S16-7875C	64.3			5.0
UNIVERSITY OF MISSOURI S16-7922C	64.1			5.0
UNIVERSITY OF MISSOURI S15-3847R	64.0			3.3
UNIVERSITY OF MISSOURI S16-5540R	64.0			5.0
DYNA-GRO S48XT56	62.6	71.2	75.2	1.3
PENNYRILE (long term check-released 1987)	56.6	64.1	61.7	1.7
GROUP IV LATE AVERAGE	**72.6**	**79.9**	**77.7**	**2.2**
LSD (0.10)	4.3	3.0	3.1	
C.V.	4.3	4.1	6.0	
MATURITY GROUP V (relative MG 5.0-5.9)				
ARMOR 51-E53	**77.4**			2.0
PROGENY 5170 RX	75.7	**85.7**		2.7
LS5009XS	75.5			2.0
ZS5098E3	75.3			2.3
LS5386X	72.8			1.0
PROGENY 5252 RX	71.4	71.4		2.3
UNIVERSITY OF MISSOURI S16-15170C	71.3			2.7
LS5087X	70.4	73.3		2.7
PROGENY 5211 E3	66.3			2.0
UNIVERSITY OF MISSOURI S16-15809C	65.2			4.7
UNIVERSITY OF MISSOURI S16-3739RY	64.9			4.7
PROGENY 5016 RXS	64.6	78.0	**74.5**	2.0
UNIVERSITY OF MISSOURI S16-11651C	63.6			4.7
ESSEX (long term check-released 1974)	60.6	73.9	67.1	2.7
ARMOR 50-D50	60.6			1.3
UNIVERSITY OF MISSOURI S16-3747R	56.5			4.0
GROUP V AVERAGE	**68.3**	**76.4**	**70.8**	**2.7**
LSD (0.10)	5.5	3.1	2.5	
C.V.	5.8	4.5	5.3	

[A] *Within a maturity group, shaded yield are not significantly different (0.10) from the highest yielding cultivar (bold) of that maturity group and year column.*

[B] *The 2019-2020 yield data were collected attest sites in Cumberland Co., KY. No data were collected in the Lake Cumberland Region in 2018. The 2017 data were collecetd at test sites in Cumberland Co. and Pulaski Co., KY.*

Agronomic Information – Lake Cumberland region, Cumberland County

GPS coordinates	36°49'12.7"N, 85°28'54.6"W
Soil type	Silt loam Sand: 13.03%, Silt: 69.76%, Clay: 17.21% CEC: 11.74 meq/100g Plant available water: 22.09% Field capacity water: 37% Wilting point water: 14.91%
Slopes	2-6%
Previous crop	corn
Soil test (02/21/2020)	pH 6.04, P 231 lb/a, K 191 lb/a
SCN test	125 (low)
Agricultural practice	no-till
Pre-planting herbicides	MadDog Plus, Autority XL, Matador-S (06/06/2020)
Planting date	06/07/2020
Post-emergence herbicides	Basagran 5L, Reflex, Warrant, Fusion (07/08/2020)
Harvest date	MG II & III: 10/14; MG IV Early, IV Late & V: 11/18
50% frost killing	10/24

Climate – Lake Cumberland region, Cumberland County

Month	Total Monthly Precip. (in.)	Temperatures: Monthly Average (F)	Highest Recorded (F)	Lowest Recorded (F)
June (6/7-6/30)	5.28	73	94	61
July	3.77	78	96	61
August	6.34	75	93	58
September	5.01	68	91	41
October	2.51	58	85	32
November (11/1-11/18)	0.58	49	83	23

Data source: weather station – on-site

Table 8. 2020 Kentucky Soybean Variety Performance Tests - Lincoln Trail Region, Meade County

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020
MATURITY GROUP II (relative MG 2.0-2.9)				
ASGROW AG29X9	**76.9**	**59.8**		2.0
AGRIGOLD G2900RX	69.9	58.6	53.1	2.0
GROUP II AVERAGE	**73.4**	**59.2**		**2.0**
LSD (0.10)	10.1	3.8		
C.V.	5.8	5.8		
MATURITY GROUP III (relative MG 3.0-3.9)				
STEWART 3628R2X	**82.3**	68.3		3.0
NUTECH 39N04E	80.6			1.3
STINE 39EA02	80.1	65.4		1.3
LG SEEDS LGS3733RX	79.2			2.7
B390EE	79.1			1.0
SEED CONSULTANTS SC 7381E™	77.8			1.7
PIONEER P39A58X	77.6			2.0
LS3906GL	77.5			2.0
NUTECH 36N03E	77.2			1.0
GO SOY 38E21S	77.1			1.3
CAVERNDALE CF 383 E3 STSn	77.1			1.0
AGRIGOLD G3850RX	77.1	67.2		2.3
ARMOR 39-D30	76.7			4.7
ASGROW AG36X6	76.6			1.7
LS3976X	76.4	**68.8**		2.7
LG SEEDS LGS3840RX	76.1			2.0
STEWART 3830R2X	75.8	65.8		1.3
PIONEER P33A53X	75.4	64.2		1.3
ASGROW AG38X8	75.1	61.6	56.7	1.3
AGRIGOLD G3722RX	74.3	63.8	**64.0**	3.7
PIONEER P31A22X	74.3	60.2		5.0
DYNA-GRO S3961STS	73.6			2.0
SEED CONSULTANTS SC 8399X™	73.3	61.4	59.7	2.0
ASGROW AG39X0	73.2	65.1		3.0
ASGROW AG37X9	73.0	60.8	55.9	2.0
NUTECH 39N05E	72.9			1.7
ZS3898E3S	72.5			1.7
DYNA-GRO S38XS21	72.3			3.0
DYNA-GRO S39EN19	72.2	61.9		1.3
B389EE	72.1			1.7
PIONEER P36A83X	71.9			1.3
SEED CONSULTANTS SC 3399L™	71.8	62.0		2.3
SEED CONSULTANTS SCS 9393RR™	70.2	60.8	58.7	1.0
ASGROW AG33X0	69.7			2.7
ASGROW AG39X7	69.3	63.8	60.4	1.7
LG SEEDS LGS3600RX	68.1			1.3
AGRIGOLD G3620RX	68.1	60.7		1.3
CHANNEL 3821R2X/SR	61.7			2.7
GROUP III AVERAGE	**74.5**	**63.6**	**59.3**	**2.0**
LSD (0.10)	4.4	2.8	2.3	
C.V.	4.3	4.2	4.4	
MATURITY GROUP IV EARLY (relative MG 4.0-4.5)				
CHANNEL 4218R2X/SR	**78.8**	63.7	57.3	3.0
NUTECH 43N04E	78.1			1.7
B400EE	76.6			1.0
USG 7447XTS	76.0			2.3
V 4220 S	75.8			2.3
CZ 4240GTLL	75.3			1.0
V 4520 S	75.0			2.3
DM 40X61	74.7			3.7
ARMOR 44-E44	74.3			2.3
DYNA-GRO S41ES80	74.1			2.7
AGRIGOLD G4190RX	73.9			2.3
STEWART 4228R2X	73.8	62.1	62.5	2.7
PIONEER P42A96X	73.5	**63.9**	**65.4**	2.0
AGRIGOLD G4255RX	73.3			2.3
HS 41X70	73.2			3.0
STINE 41EB32	73.1			2.0
LG SEEDS LGS4464RX	72.9			3.0
ASGROW AG43X0	71.2	63.4		2.7
LS4299XS	70.9	63.1		2.7
ARMOR 44-D19	70.3			3.7
ARMOR 44-D92	69.9	62.9		3.0
AGRIGOLD G4318RX	69.8			3.0

continued

Table 8. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020
ARMOR 44-D49	69.5			4.3
TAYLOR SEED T4400XS	69.4			3.3
DM 45X61	69.4			4.0
DYNA-GRO S43XS70	69.3	60.8		3.3
GO SOY 433E21	69.3			4.3
CHANNEL 4519R2X/SR	69.1	62.8		2.0
DYNA-GRO S41XS98	68.6	60.4	64.5	2.0
PROGENY 4265 RXS	68.2	61.5		2.7
STEWART 4527R2X	67.9	62.3	62.2	4.0
LS4407X	67.5	59.3		3.0
DYNA-GRO S45ES10	67.3			2.0
CAVERNDALE CF 453 E3	67.2			2.0
PROGENY 4444 RXS	67.2	58.7	61.1	3.7
SEED CONSULTANTS SC 7421™	67.1			3.3
B430EE	67.0			2.7
CAVERNDALE CF 423 E3 STSn	67.0			1.7
AGS GS42X19S	66.7	56.9		2.7
PROGENY 4241 E3	66.2			2.7
NUTECH 41N03E	66.1			1.7
LS4565XS	66.1	57.8		4.0
STEWART 4029R2X	65.2	55.6		2.3
B420EE	64.8			3.3
ARMOR 42-E11	64.8			3.3
B459EE	63.5			2.7
GO SOY 41C19	63.5			3.3
HS 43E00	63.2			3.0
CZ 4241GTLL	63.1			2.0
STINE 40EB22	62.9			4.0
LS4583X	62.8	56.5		2.0
PROGENY 4505 RXS	62.3			3.3
PIONEER P44A72BX	62.2	56.2	59.6	2.0
NUTECH 45N04E	61.8			1.7
DYNA-GRO S43EN61	61.3			3.3
MISSION A4448X	60.7			3.7
ASGROW AG42X9	57.7	53.0	53.6	3.0
HS 45E00	57.3			2.0
BLUE RIVER 41DC8	57.0			1.7
UNIVERSITY OF MISSOURI S15-5904RY	53.9			3.0
GROUP IV EARLY AVERAGE	**68.1**	**60.0**	**60.8**	**2.7**
LSD (0.10)	7.4	4.1	3.1	
C.V.	8.0	6.6	6.2	
MATURITY GROUP IV LATE (relative MG 4.6-4.9)				
STEWART 4927R2X	**81.4**	65.6	63.2	2.3
LG SEEDS LGS4899RX	79.8	**68.0**		2.0
LS4795XS	79.0	66.0		1.7
AGRIGOLD G4620RX	78.4			1.7
CZ 4770X	78.1			2.0
MISSION A4950X	77.0			2.7
HS 49X60	77.0	66.5	**66.5**	1.7
TAYLOR SEED T4990XS XTEND	76.6			2.7
ARMOR 48-D25	76.4	63.2		1.3
B460EE	76.2			2.0
ASGROW AG46X0	76.0	63.9		2.0
USG 7489XT	75.9			1.0
B470EE	75.8			3.3
PIONEER P48A60X	75.6	62.8	62.6	3.7
LS4607XS	75.3			2.7
LS4806XS	74.7			1.7
HS 46X90	74.6	61.7		1.3
PIONEER P46A86X	74.6			2.7
BLUE RIVER 49CK9	74.1			2.0
V 4921 S	73.7			1.7
DYNA-GRO S46XS60	73.7	61.5		1.3
LS4999X	73.5	62.1		2.3
CZ 4810X	73.3			2.3
PROGENY 4816 RX	73.0	62.2	63.6	1.7
ASGROW AG48X7	72.9			2.0
NUTECH 46N02E	72.5			1.7
ARMOR 46-D09	72.0	62.6		2.0
BLUE RIVER e4993	72.0	61.5		2.7
GO SOY 481E19	72.0			2.0
PROGENY 4821 RX	72.0	62.8		2.0
HS 48E00	71.5			2.7
MISSION A4618X	71.3			2.7

continued

Table 8. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020
ARMOR 46-E50	70.8			1.7
PROGENY 4775 E3S	70.7			2.7
AGS GS47X19	70.6			2.0
TAYLOR SEED T4880X XTEND	70.6			1.3
USG 7461XTS	70.6			2.3
PROGENY 4700 RXS	70.3			2.0
DYNA-GRO S48XT56	70.2	61.3	60.8	1.7
CZ 4730X	69.8			3.0
MISSION A4828X	69.6			4.0
UNIVERSITY OF MISSOURI S16-14730C	69.6			3.0
UNIVERSITY OF MISSOURI S15-3772RY	69.6			2.3
LG SEEDS LGS4632RX	69.2			2.3
STINE 48EB02	69.2			2.3
DYNA-GRO S4751STS	68.8			2.7
ARMOR 49-D14	68.7			3.0
PROGENY 4807 E3S	68.6			4.0
DYNA-GRO S46XT80	68.5	60.5		2.0
ARMOR 47-E02	68.2			2.7
PROGENY 4970 RX	68.0			2.3
USG 7470XT	68.0	59.9		4.0
STINE 46EB22	67.9			2.3
DYNA-GRO S48XT90	67.9			2.7
PROGENY 4902 E3	67.8			2.7
CAVERNDALE CF 461 LL/GT27/STSn	67.0			2.0
PROGENY 4602 LR	67.0			2.3
LS4706GL	66.6			2.0
DYNA-GRO S46ES91	66.5			2.7
USG 7496XTS	66.2	56.6	56.8	3.0
ASGROW AG48X9	66.2	57.5	58.8	1.3
ASGROW AG47X9	65.8	62.4	65.9	2.3
PROGENY 4620 RXS	65.6	61.4	60.5	5.0
ARMOR 48-E81	65.6			4.7
TAYLOR SEED T4641ES	65.3			1.7
GO SOY 463E20S	64.3			3.0
PROGENY 4682 E3	64.2			1.7
DM 48E73	63.7			1.3
UNIVERSITY OF MISSOURI S16-14379C	61.1			3.0
CAVERNDALE CF 473 E3 STSn	61.1			2.3

continued

Table 8. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020
UNIVERSITY OF MISSOURI S16-7922C	60.2			5.0
PROGENY 4908 E3S	59.7			2.0
UNIVERSITY OF MISSOURI S16-7875C	59.5			5.0
PROGENY 4851 RX	57.8			4.3
PENNYRILE (long term check-released 1987)	57.7	48.5	47.2	3.0
DM 49X13	57.6			3.0
UNIVERSITY OF MISSOURI S16-5540R	57.0			5.0
GO SOY 48C17S	56.3	49.6		5.0
UNIVERSITY OF MISSOURI S15-3847R	55.3			4.7
UNIVERSITY OF MISSOURI S16-11644C	52.9			5.0
GROUP IV LATE AVERAGE	**69.3**	**61.2**	**60.6**	**2.6**
LSD (0.10)	4.8	3.0	2.4	
C.V.	5.1	4.7	4.8	
MATURITY GROUP V (relative MG 5.0-5.9)				
ARMOR 50-D50	**76.7**			3.7
PROGENY 5211 E3	71.0			2.7
PROGENY 5170 RX	69.9	71.8		3.7
ARMOR 51-E53	67.0			3.7
PROGENY 5016 RXS	66.1	75.2	67.9	4.3
LS5087X	65.7	**77.6**		3.3
LS5386X	64.0			2.3
LS5009XS	62.8			4.7
PROGENY 5252 RX	60.5	73.0	62.4	2.7
UNIVERSITY OF MISSOURI S16-11651C	59.2			5.0
UNIVERSITY OF MISSOURI S16-15170C	58.9			2.7
ESSEX (long term check-released 1974)	56.6	65.3	55.7	5.0
UNIVERSITY OF MISSOURI S16-3739RY	55.6			5.0
UNIVERSITY OF MISSOURI S16-15809C	55.5			5.0
ZS5098E3	54.2			3.0
UNIVERSITY OF MISSOURI S16-3747R	53.5			5.0
GROUP V AVERAGE	**62.3**	**72.6**	**62.0**	**3.9**
LSD (0.10)	4.8	7.9	5.4	
C.V.	5.5	12.0	10.6	

[A] *Within a maturity group, shaded yield are not significantly different (0.10) from the highest yielding cultivar (bold) of that maturity group and year column.*

[B] *The 2018-2020 yield data were collected at test sites in Meade County, KY.*

Agronomic Information – Lincoln Trail Region, Meade County

GPS coordinates	37°49'26.4"N, 86°06'21.1"W
Soil type	Silt loam Sand: 7.24%, Silt: 77.2%, Clay: 15.57% CEC: 12.07meq/100g Plant available water: 26.52% Field capacity water: 39.13% Wilting point water: 12.6%
Slopes	2-12%
Previous crop	Corn
Soil test (03/05/2020)	pH 6.61, P 86 lb/a, K 270 lb/a
SCN test	125 (low)
Agricultural practice	no-till
Pre-emergence herbicides	NA
Planted date	06/11/2020
Post-emergence herbicides	Basagran 5L, Reflex, Warrant, Fusion (07/14/2020)
Harvest date	MG II & III: 11/06; MG IV Early, IV Late & V: 11/07
50% frost killing	10/13

Climate – Lincoln Trail Region, Meade County

Month	Total Monthly Precip. (in.)	Temperatures: Monthly Average (F)	Highest Recorded (F)	Lowest Recorded (F)
June (6/11-6/30)	3.0	71	90	68
July	3.6	78	92	58
August	5.8	73	88	53
September	2.4	66	86	38
October	6.5	56	83	27
November (11/1-11/7)	0	49	75	21

Data source: KY Mesonet – Bradenburg station

Table 9. 2020 Kentucky Soybean Variety Performance Tests - Mammoth Cave Region , Allen County

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020
MATURITY GROUP II (relative MG 2.0-2.9)				
ASGROW AG29X9	**61.1**	NA		1.0
AGRIGOLD G2900RX	60.9			2.3
GROUP II AVERAGE	**61.0**			**1.7**
LSD (0.10)	3.5			
C.V.	3.7			
MATURITY GROUP III (relative MG 3.0-3.9)				
STINE 39EA02	**82.0**	71.4		2.0
LS3906GL	80.5			3.0
DYNA-GRO S38XS21	79.9			2.0
AGRIGOLD G3620RX	78.4	**76.0**		2.7
DYNA-GRO S39EN19	78.2	72.1		2.3
PIONEER P36A83X	76.9			2.3
LG SEEDS LGS3600RX	76.0			2.7
ASGROW AG37X9	75.7	62.0	63.4	2.7
ASGROW AG38X8	75.5	67.7	67.5	2.3
STEWART 3830R2X	75.3	70.0		2.0
NUTECH 39N04E	74.8			1.0
LS3976X	74.6	66.2		3.7
LG SEEDS LGS3733RX	74.4			3.3
AGRIGOLD G3850RX	73.9	64.2		2.7
ASGROW AG39X7	73.4	65.4	64.5	2.0
SEED CONSULTANTS SC 7381E™	72.9			1.0
PIONEER P31A22X	72.8	62.2		5.0
ASGROW AG39X0	72.5	70.4		3.7
ASGROW AG33X0	72.2			3.0
STEWART 3628R2X	72.2	63.3		2.0
ARMOR 39-D30	72.0			3.3
DYNA-GRO S3961STS	71.8			1.3
SEED CONSULTANTS SCS 9393RR™	70.8	72.4	67.4	2.7
ZS3898E3S	70.7			2.0
ASGROW AG36X6	70.3			2.3
SEED CONSULTANTS SC 3399L™	70.3	69.6		3.7
AGRIGOLD G3722RX	69.2	64.6	63.1	3.7
PIONEER P39A58X	68.1			2.0
PIONEER P33A53X	67.5	66.6		1.7
CAVERNDALE CF 383 E3 STSn	67.5			1.0
NUTECH 39N05E	66.7			1.7
NUTECH 36N03E	66.3			1.0
CHANNEL 3821R2X/SR	66.2			3.3
B390EE	65.6			1.0
B389EE	65.3			3.0
GO SOY 38E21S	63.2			1.3
LG SEEDS LGS3840RX	62.8			2.3
SEED CONSULTANTS SC 8399X™	60.8	62.7	65.4	3.7
GROUP III AVERAGE	**71.8**	**67.4**	**65.2**	**2.4**
LSD (0.10)	3.6	2.9	2.3	
C.V.	3.7	4.4	4.3	
MATURITY GROUP IV EARLY (relative MG 4.0-4.5)				
DM 45X61	**83.5**			2.0
DYNA-GRO S41XS98	79.3	**77.7**	**71.7**	1.3
ARMOR 44-D92	77.9	72.0		1.3
PROGENY 4265 RXS	77.9	64.1		1.3
USG 7447XTS	77.6			1.7
LS4565XS	77.0	71.1		2.0
LG SEEDS LGS4464RX	76.5			1.7
MISSION A4448X	75.5			1.7
STINE 40EB22	75.4			1.3
B400EE	75.1			1.0
CHANNEL 4519R2X/SR	75.0	63.2		1.7
AGRIGOLD G4255RX	74.8			2.3
SEED CONSULTANTS SC 7421™	74.7			2.0
PIONEER P44A72BX	73.6	67.5	66.6	2.0
PROGENY 4241 E3	73.2			1.0
V 4520 S	73.2			1.3
TAYLOR SEED T4400XS	73.0			1.3
ARMOR 44-D49	73.0			1.3
NUTECH 43N04E	73.0			1.7
AGRIGOLD G4190RX	72.9			1.7
PROGENY 4505 RXS	72.8			2.3
ARMOR 44-E44	72.7			1.3

continued

Table 9. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020
HS 41X70	72.4			1.3
STEWART 4228R2X	72.2	72.0	68.5	1.7
AGRIGOLD G4318RX	72.1			3.0
ASGROW AG43X0	71.9	75.2		1.3
STEWART 4527R2X	71.9	71.5	70.8	1.3
NUTECH 45N04E	71.6			1.3
GO SOY 41C19	71.5			1.0
ARMOR 44-D19	70.5			1.3
ARMOR 42-E11	70.3			2.7
CAVERNDALE CF 453 E3	70.3			3.7
B430EE	70.3			1.7
CAVERNDALE CF 423 E3 STSn	70.0			1.3
GO SOY 433E21	69.9			3.0
DYNA-GRO S43EN61	69.5			1.7
DYNA-GRO S45ES10	69.4			1.7
CZ 4241GTLL	69.1			1.7
PROGENY 4444 RXS	68.7	64.6	61.6	2.7
AGS GS42X19S	68.7	69.3		2.0
HS 43E00	68.5			2.0
B459EE	68.4			1.7
LS4299XS	68.1	67.7		1.7
STINE 41EB32	68.1			1.0
BLUE RIVER 41DC8	67.8			1.0
DM 40X61	67.4			2.0
CHANNEL 4218R2X/SR	67.2	61.6	58.9	1.3
HS 45E00	66.9			1.3
LS4583X	66.3	58.9		2.7
DYNA-GRO S43XS70	65.8	72.0		1.3
LS4407X	65.5	66.2		2.7
STEWART 4029R2X	64.7	61.4		1.0
DYNA-GRO S41ES80	64.2			1.0
V 4220 S	64.2			3.0
B420EE	63.1			1.7
CZ 4240GTLL	62.9			1.0
PIONEER P42A96X	62.3	62.2	66.1	1.0
NUTECH 41N03E	62.3			1.0
ASGROW AG42X9	60.7	60.2	59.7	2.0
UNIVERSITY OF MISSOURI S15-5904RY	53.2			1.3
GROUP IV EARLY AVERAGE	**70.4**	**67.3**	**65.5**	**1.7**
LSD (0.10)	5.2	3.1	2.5	
C.V.	5.4	4.7	4.7	
MATURITY GROUP IV LATE (relative MG 4.6-4.9)				
TAYLOR SEED T4641ES	**82.3**			1.0
DYNA-GRO S48XT90	81.6			1.7
LS4795XS	81.3	69.9		1.3
LS4806XS	79.2			1.0
STEWART 4927R2X	78.7	62.9	59.7	2.0
LG SEEDS LGS4632RX	78.6			2.3
BLUE RIVER e4993	77.6	63.9		2.0
DM 48E73	77.6			1.3
PIONEER P48A60X	77.6	**79.1**	**75.4**	1.0
USG 7496XTS	77.1	65.7	63.4	2.0
AGRIGOLD G4620RX	76.0			1.3
UNIVERSITY OF MISSOURI S16-7922C	75.5			4.3
ARMOR 48-D25	75.4	74.7		1.3
LS4999X	75.0	59.9		1.7
HS 46X90	74.9	65.7		1.0
HS 49X60	74.2	59.4	61.5	1.7
DYNA-GRO S48XT56	74.1	57.0	52.0	1.0
B460EE	73.7			1.7
PROGENY 4700 RXS	73.6			1.3
ARMOR 46-E50	73.5			1.3
B470EE	72.4			1.3
USG 7489XT	72.2			1.7
ARMOR 47-E02	72.1			1.3
GO SOY 48C17S	72.1	65.2		4.0
LG SEEDS LGS4899RX	71.9	60.2		1.3
ARMOR 46-D09	71.8	53.0		1.7
DYNA-GRO S4751STS	71.7			1.3
GO SOY 463E20S	71.6			1.0
PROGENY 4775 E3S	71.4			1.0
TAYLOR SEED T4880X XTEND	71.3			1.3
STINE 46EB22	71.0			1.3
MISSION A4618X	70.7			1.3

continued

Table 9. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020
NUTECH 46N02E	70.0			1.7
AGS GS47X19	70.0			2.3
HS 48E00	69.4			1.3
PROGENY 4821 RX	69.4	61.0		1.3
PROGENY 4970 RX	69.2			1.7
V 4921 S	69.1			1.0
LS4607XS	68.9			1.3
PROGENY 4851 RX	68.9			3.7
DYNA-GRO S46XS60	68.7	63.2		1.0
BLUE RIVER 49CK9	68.6			2.0
DM 49X13	68.6			1.3
PROGENY 4816 RX	68.6	61.5	64.0	1.0
GO SOY 481E19	68.4			2.0
ARMOR 48-E81	68.3			3.3
MISSION A4828X	68.2			2.3
MISSION A4950X	68.2			1.7
DYNA-GRO S46XT80	68.0	69.2		1.7
USG 7461XTS	67.8			1.7
PROGENY 4902 E3	67.6			1.7
STINE 48EB02	67.4			1.3
ASGROW AG46X0	67.3	63.5		1.7
ASGROW AG48X7	66.9			1.7
UNIVERSITY OF MISSOURI S16-5540R	66.2			5.0
CZ 4770X	66.1			1.7
TAYLOR SEED T4990XS XTEND	65.6			1.7
ARMOR 49-D14	65.3			1.7
UNIVERSITY OF MISSOURI S15-3772RY	65.1			1.7
CZ 4810X	64.9			1.7
PIONEER P46A86X	64.8			1.3
DYNA-GRO S46ES91	64.7			1.0
UNIVERSITY OF MISSOURI S16-11644C	64.4			5.0
CAVERNDALE CF 473 E3 STSn	64.3			1.3
ASGROW AG48X9	64.2	63.9	65.9	1.3
CAVERNDALE CF 461 LL/GT27/STSn	64.0			2.3
UNIVERSITY OF MISSOURI S16-14730C	64.0			1.7
PROGENY 4807 E3S	63.5			3.0
PROGENY 4620 RXS	63.5	56.2	55.3	2.3
PROGENY 4602 LR	62.8			1.0

continued

Table 9. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020
PROGENY 4908 E3S	62.7			2.0
ASGROW AG47X9	62.4	67.1	63.4	1.3
CZ 4730X	61.8			2.0
UNIVERSITY OF MISSOURI S16-14379C	60.9			1.3
PROGENY 4682 E3	60.6			2.3
LS4706GL	59.2			1.3
UNIVERSITY OF MISSOURI S16-7875C	58.8			5.0
USG 7470XT	58.5	49.6		1.3
UNIVERSITY OF MISSOURI S15-3847R	58.1			3.3
PENNYRILE (long term check-released 1987)	52.3	43.6	44.9	1.3
GROUP IV LATE AVERAGE	**69.2**	**62.4**	**60.6**	**1.8**
LSD (0.10)	4.4	3.1	2.4	
C.V.	4.4	4.9	4.8	
MATURITY GROUP V (relative MG 5.0-5.9)				
LS5009XS	**68.8**			2.3
PROGENY 5016 RXS	64.1	61.6	**60.9**	1.7
PROGENY 5211 E3	64.1			2.0
LS5087X	63.5	50.1		2.0
PROGENY 5170 RX	62.8	61.9		2.0
UNIVERSITY OF MISSOURI S16-15170C	61.5			1.0
PROGENY 5252 RX	60.3	58.6	58.2	1.3
UNIVERSITY OF MISSOURI S16-3747R	60.3			4.3
ARMOR 51-E53	56.1			2.7
LS5386X	56.0			2.0
UNIVERSITY OF MISSOURI S16-11651C	55.4			4.3
ARMOR 50-D50	55.4			1.7
ZS5098E3	55.4			3.0
ESSEX (long term check-released 1974)	51.7	52.9	53.6	2.7
UNIVERSITY OF MISSOURI S16-15809C	49.8			3.7
UNIVERSITY OF MISSOURI S16-3739RY	48.2			3.0
GROUP V AVERAGE	**58.3**	**57.0**	**57.6**	**2.5**
LSD (0.10)	4.6	3.2	2.3	
C.V.	5.6	5.8	5.1	

[A] *Within a maturity group, shaded yield are not significantly different (0.10) from the highest yielding cultivar (bold) of that maturity group and year column.*

[B] *The 2019-2020 yield data were collected at test sites in Allen Co., KY. The 2018 data were colleceted in Logan Co., KY.*

Agronomic Information – Mammoth Cave Region, Allen County

GPS coordinates	36°43'44.7"N, 86°10'13.0"W
Soil type	Silt loam Sand: 14.26%, Silt: 73.31%, Clay: 12.43% CEC: 7.66meq/100g Plant available water: 25.01% Field capacity water: 34.83% Wilting point water: 9.82%
Slopes	2-12%
Previous crop	corn
Soil test (02/29/2020)	pH 6.31, P 30 lb/a, K 110 lb/a
SCN test	0
Fertilizer/lime applied	NA
Agricultural practice	no-till
Pre-emergence herbicide	MadDog Plus, Autority XL, Matador-S (06/05/2020)
Planting date	06/06/2020
Post-planting herbicides	Basagran 5L, Reflex, Warrant, Fusion (07/09/2020)
Harvest date	MG II & III: 10/08; MG IV Early, IV Late & V: 11/17
50% frost killing	10/22

Climate – Mammoth Cave Region, Allen County

Month	Total Monthly Precip. (in.)	Temperatures: Monthly Average (F)	Highest Recorded (F)	Lowest Recorded (F)
June (6/6-6/30)	6.2	73	91	55
July	4.9	79	94	63
August	6.6	76	91	61
September	2.9	69	87	46
October	3.0	59	82	34
November (11/1-11/17)	0.67	55	80	27

Data source: KY Mesonet – Scottsville station

Table 10. 2020 Kentucky Soybean Variety Performance Tests - Pennyrile Region, Caldwell and Christian Counties

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020 Caldwell	2020 Christian	2019-2020	2018-2020	LODGING 2020
MATURITY GROUP II (relative MG 2.0-2.9)					
AGRIGOLD G2900RX	**69.2**	64.4	71.0	64.2	2.7
ASGROW AG29X9	66.2	**64.6**	75.2		2.1
GROUP II AVERAGE	**67.7**	**64.5**	**73.1**	**64.2**	**2.4**
LSD (0.10)	7.6	7.2	2.5	2.0	
C.V.	7.3	4.7	4.7	4.6	
MATURITY GROUP III (relative MG 3.0-3.9)					
B389EE	**88.6**	62.8	75.7		1.8
PIONEER P36A83X	87.4	62.6	75.0		2.2
STEWART 3830R2X	87.1	61.1	74.1		2.3
SEED CONSULTANTS SC 7381E™	85.9	61.6	73.8		2.2
DYNA-GRO S39EN19	84.3	**71.1**	**77.7**		2.2
NUTECH 39N04E	83.4	63.3	73.4		1.8
B390EE	83.2	61.8	72.5		2.8
AGRIGOLD G3620RX	82.6	63.3	72.9		2.0
DYNA-GRO S38XS21	81.4	66.1	73.7		2.0
PIONEER P39A58X	80.2	68.3	74.2		2.2
ASGROW AG39X0	79.8	60.8	70.3		2.7
LS3906GL	79.7	61.7	70.7		2.0
STINE 39EA02	79.7	64.8	72.3		2.3
ASGROW AG38X8	78.8	60.8	69.8	71.4	2.2
ASGROW AG37X9	78.4	66.0	72.2	74.6	2.7
AGRIGOLD G3722RX	78.3	59.8	69.0	69.6	2.7
GO SOY 38E21S	78.0	68.2	73.1		3.0
ASGROW AG36X6	77.9	61.5	69.7		2.3
CAVERNDALE CF 383 E3 STSn	77.3	66.1	71.7		2.8
LG SEEDS LGS3840RX	77.1	64.5	70.8		2.8
NUTECH 39N05E	75.6	66.4	71.0		1.8
ARMOR 39-D30	74.8	69.4	72.1		3.7
AGRIGOLD G3850RX	74.5	68.8	71.7		2.8
SEED CONSULTANTS SC 8399X™	73.9	59.8	66.9	70.5	2.2
LS3976X	73.8	67.8	70.8		2.2
ASGROW AG33X0	73.2	63.8	68.5		2.2
ASGROW AG39X7	72.4	62.1	67.3	68.9	2.2
SEED CONSULTANTS SC 3399L™	72.0	69.6	70.8		3.3
CHANNEL 3821R2X/SR	71.9	65.6	68.7		2.3
ZS3898E3S	71.6	66.6	69.1		2.3
PIONEER P33A53X	71.4	58.1	64.8		1.8
NUTECH 36N03E	70.5	64.0	67.3		1.7
LG SEEDS LGS3733RX	69.9	60.3	65.1		3.0
LG SEEDS LGS3600RX	69.6	66.0	67.8		1.8
SEED CONSULTANTS SCS 9393RR™	67.3	57.8	62.6	66.0	1.7
DYNA-GRO S3961STS	66.7	60.3	63.5		2.0
STEWART 3628R2X	65.4	66.9	66.2		2.7
PIONEER P31A22X	63.6	61.0	62.3		4.2
GROUP III AVERAGE	**76.5**	**64.0**	**70.2**	**70.2**	**2.4**
LSD (0.10)	4.7	4.0	3.1	1.8	
C.V.	4.5	4.6	4.6	4.2	
MATURITY GROUP IV EARLY (relative MG 4.0-4.5)					
NUTECH 41N03E	**94.7**	64.8			1.7
AGRIGOLD G4255RX	91.8	63.1			2.3
STINE 41EB32	90.0	70.5			3.0
STEWART 4228R2X	89.7	60.5	75.6	71.8	2.2
DYNA-GRO S43XS70	87.6	59.2	78.1		2.3
DYNA-GRO S41XS98	86.5	67.2	**79.5**	76.0	2.2
STEWART 4527R2X	86.0	68.5	78.8	**76.3**	2.5
STINE 40EB22	85.6	69.3			2.0
B459EE	85.5	63.5			2.2
B430EE	85.4	62.1			3.5
CHANNEL 4519R2X/SR	85.1	67.1	77.8		2.8
DYNA-GRO S41ES80	85.0	64.4			2.3
LS4583X	84.9	**71.8**	78.7		3.0
SEED CONSULTANTS SC 7421™	83.7	59.9			2.3
V 4520 S	83.6	63.5			2.2
NUTECH 43N04E	83.6	65.3			2.8
ARMOR 44-D49	83.1	67.8			4.2
DYNA-GRO S45ES10	82.8	64.0			2.3
CZ 4240GTLL	82.3	57.4			1.7
B420EE	82.0	64.2			3.0
HS 41X70	81.4	66.7			2.5
V 4220 S	81.3	65.0			2.8
GO SOY 41C19	81.2	64.0			2.7
MISSION A4448X	81.0	67.7			3.5

continued

Table 10. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020 Caldwell	2020 Christian	2019-2020	2018-2020	LODGING 2020
ARMOR 42-E11	80.6	64.0			2.3
B400EE	80.6	61.2			2.0
ASGROW AG42X9	80.5	59.4	72.7	70.4	3.3
CHANNEL 4218R2X/SR	80.4	57.3	74.0	70.6	1.8
GO SOY 433E21	80.4	61.1			3.2
DYNA-GRO S43EN61	80.2	63.0			2.7
PROGENY 4444 RXS	79.3	63.0	72.9	69.4	3.0
ASGROW AG43X0	79.1	67.2	79.0		2.2
PROGENY 4265 RXS	78.3	65.8	75.1		2.3
AGRIGOLD G4318RX	78.0	64.2			3.5
USG 7447XTS	77.4	61.4			3.5
CAVERNDALE CF 423 E3 STSn	77.3	60.3			2.2
LS4299XS	77.1	70.2	77.2		2.3
LS4407X	77.0	59.6	70.7		3.0
ARMOR 44-E44	76.8	66.9			2.3
AGRIGOLD G4190RX	76.6	66.5			2.3
CZ 4241GTLL	76.5	65.4			2.0
HS 45E00	76.4	65.3			1.8
ARMOR 44-D92	76.3	63.0	79.2		2.5
STEWART 4029R2X	76.2	61.3	73.7		2.5
LG SEEDS LGS4464RX	76.1	62.1			2.2
PROGENY 4241 E3	75.8	61.3			1.7
NUTECH 45N04E	74.9	64.7			2.8
PIONEER P42A96X	74.6	66.1	78.5	75.1	1.8
AGS GS42X19S	74.4	60.7	65.1		2.0
CAVERNDALE CF 453 E3	74.3	55.5			3.3
UNIVERSITY OF MISSOURI S15-5904RY	74.2	55.9			3.0
TAYLOR SEED T4400XS	72.9	64.5			2.5
PROGENY 4505 RXS	72.4	69.3			4.2
LS4565XS	71.8	64.2	72.4		3.8
ARMOR 44-D19	71.6	64.1			2.7
PIONEER P44A72BX	71.5	64.9	73.1	70.9	3.3
HS 43E00	70.2	65.3			2.0
DM 40X61	69.5	64.9			2.5
BLUE RIVER 41DC8	69.2	62.8			1.8
DM 45X61	68.6	65.0			3.8
GROUP IV EARLY AVERAGE	**79.5**	**63.9**	**75.4**	**72.6**	**2.6**
LSD (0.10)	5.0	4.3	2.3	2.1	
C.V.	4.7	5.0	4.7	4.7	
MATURITY GROUP IV LATE (relative MG 4.6-4.9)					
PROGENY 4807 E3S	**99.1**	60.8			4.0
B460EE	95.6	60.7			3.2
ASGROW AG46X0	94.0	56.7	73.0		3.0
DYNA-GRO S46ES91	93.9	57.7			2.7
HS 46X90	92.8	57.5	72.4		2.0
HS 48E00	88.6	57.4			4.2
LG SEEDS LGS4632RX	88.5	59.8			3.3
ARMOR 47-E02	85.0	55.8			2.5
ASGROW AG48X9	84.6	57.2	73.8	70.5	2.8
PROGENY 4620 RXS	84.1	60.2	72.2	68.5	4.7
LG SEEDS LGS4899RX	83.5	60.0	73.5		1.8
NUTECH 46N02E	83.4	56.4			2.7
PIONEER P46A86X	83.4	60.7			3.3
LS4999X	83.2	59.0	70.8		3.0
DYNA-GRO S46XS60	82.8	65.5	75.9		2.3
MISSION A4618X	82.6	57.3			2.8
PROGENY 4682 E3	82.4	56.1			3.3
PROGENY 4775 E3S	82.2	55.4			2.5
DYNA-GRO S46XT80	82.2	61.0	72.8		3.5
BLUE RIVER 49CK9	81.9	54.8			2.2
BLUE RIVER e4993	80.0	58.3	65.2		2.8
LS4806XS	79.5	62.0			2.0
UNIVERSITY OF MISSOURI S16-14379C	79.4	55.5			2.7
TAYLOR SEED T4880X XTEND	79.1	60.0			1.8
GO SOY 48C17S	79.0	61.4	65.4		3.7
DYNA-GRO S48XT90	78.9	56.9			3.3
PIONEER P48A60X	78.4	59.9	72.2	69.3	3.2
ARMOR 46-D09	78.1	58.9	72.6		3.2
DYNA-GRO S4751STS	78.0	59.0			2.8
CZ 4730X	77.6	53.6			2.8
STINE 46EB22	77.6	59.9			2.7
V 4921 S	77.6	59.1			2.5
PROGENY 4970 RX	77.3	57.0			3.2
ASGROW AG47X9	77.3	59.0	72.5	69.4	2.2
AGS GS47X19	77.2	58.7			3.0
USG 7489XT	76.9	67.9			1.7

continued

Table 10. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020 Caldwell	2020 Christian	2019-2020	2018-2020	LODGING 2020
MISSION A4950X	76.6	61.0			3.5
ASGROW AG48X7	76.4	52.5			2.3
USG 7496XTS	76.3	61.8	70.4	67.2	2.8
TAYLOR SEED T4990XS XTEND	76.0	53.9			2.2
PROGENY 4602 LR	75.6	54.5			3.3
LS4795XS	75.5	63.6	70.0		2.3
PROGENY 4821 RX	75.3	59.1	70.5		2.8
USG 7461XTS	75.2	62.8			3.2
AGRIGOLD G4620RX	75.1	54.0			2.2
PROGENY 4851 RX	75.1	68.6			4.5
PROGENY 4816 RX	75.1	**70.2**	**76.6**	**71.9**	3.2
B470EE	74.9	58.7			2.5
LS4706GL	74.6	60.2			2.0
ARMOR 48-E81	74.2	58.9			4.5
PROGENY 4700 RXS	74.2	62.1			4.0
GO SOY 481E19	73.7	62.3			2.7
UNIVERSITY OF MISSOURI S16-14730C	73.3	54.9			3.2
ARMOR 46-E50	73.3	60.6			2.2
ARMOR 49-D14	73.0	57.7			3.7
UNIVERSITY OF MISSOURI S15-3772RY	72.1	50.4			3.0
ARMOR 48-D25	71.8	61.5	67.5		2.3
DYNA-GRO S48XT56	71.5	60.7	72.1	66.4	2.0
DM 48E73	71.5	53.0			2.2
USG 7470XT	71.5	57.6	70.0		3.0
HS 49X60	70.9	63.8	72.9	69.2	2.3
CZ 4770X	70.8	57.4			2.3
MISSION A4828X	69.7	55.2			4.0
UNIVERSITY OF MISSOURI S16-7875C	69.3	55.4			5.0
STINE 48EB02	69.0	53.0			4.0
CAVERNDALE CF 473 E3 STSn	68.8	53.3			3.0
LS4607XS	68.3	56.4			3.7
GO SOY 463E20S	68.0	59.1			2.7
PROGENY 4902 E3	65.8	58.7			3.2
TAYLOR SEED T4641ES	65.8	57.2			2.8
CAVERNDALE CF 461 LL/GT27/STSn	65.4	55.3			3.7
PROGENY 4908 E3S	65.3	51.6			2.7
CZ 4810X	65.1	60.0			3.7

continued

Table 10. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020 Caldwell	2020 Christian	2019-2020	2018-2020	LODGING 2020
UNIVERSITY OF MISSOURI S16-5540R	64.4	54.8			5.0
UNIVERSITY OF MISSOURI S15-3847R	62.4	53.5			3.3
DM 49X13	61.3	56.3			3.3
STEWART 4927R2X	59.1	61.3	67.4	63.2	3.0
UNIVERSITY OF MISSOURI S16-7922C	58.7	50.7			5.0
UNIVERSITY OF MISSOURI S16-11644C	57.1	49.9			5.0
PENNYRILE (long term check-released 1987)	51.9	40.8	49.9	47.8	3.5
GROUP IV LATE AVERAGE	**75.8**	**58.0**	**70.4**	**66.4**	**3.1**
LSD (0.10)	4.6	4.0	2.3	2.0	
C.V.	4.5	5.1	5.0	4.9	
MATURITY GROUP V (relative MG 5.0-5.9)					
ARMOR 50-D50	**85.3**	61.4			2.8
PROGENY 5211 E3	78.1	59.5			2.8
LS5009XS	74.1	64.4			3.2
LS5087X	72.4	57.8	63.9		2.8
PROGENY 5016 RXS	71.8	57.9	62.0	**64.4**	2.8
UNIVERSITY OF MISSOURI S16-15170C	71.5	54.1			2.5
PROGENY 5170 RX	71.1	68.1	**66.9**		3.7
ZS5098E3	70.6	57.2			3.0
UNIVERSITY OF MISSOURI S16-15809C	68.9	50.1			4.7
PROGENY 5252 RX	68.3	60.7	63.9	62.1	3.0
UNIVERSITY OF MISSOURI S16-11651C	68.3	54.6			4.7
ESSEX (long term check-released 1974)	67.0	49.4	56.1	56.2	4.3
LS5386X	66.4	**69.3**			2.0
ARMOR 51-E53	65.5	63.1			3.0
UNIVERSITY OF MISSOURI S16-3747R	65.0	54.6			4.2
UNIVERSITY OF MISSOURI S16-3739RY	62.2	56.5			5.0
GROUP V AVERAGE	**70.4**	**58.7**	**62.6**	**60.9**	**3.4**
LSD (0.10)	6.2	4.8	2.4	2.0	3.4
C.V.	6.4	5.8	5.7	5.3	

A Within a maturity group, shaded yield are not significantly different (0.10) from the highest yielding cultivar (bold) of that maturity group and year column.

B The 2018-2020 Caldwell Co. yield data were collected at the University of Kentucky Research and Education Center research farm in Princeton, KY. The 2019-2020 Christian Co., KY yield data were collected at on-farm test sites.

Agronomic Information – Pennyrile Region, Caldwell County

GPS coordinates	37°05'38.1"N 87°51'46.3"W
Soil type	Silt loam Sand: 3.42%, Silt: 78.2%, Clay: 18.38% CEC: 10.99 meq/100g Plant available water: 21.1% Field capacity water: 34.71% Wilting point water: 13.61%
Slopes	0-6 %, eroded
Previous crop	Tobacco, winter wheat (cover crop)
Soil test (06/01/2020)	pH 6.32, P 69 lb/a, K 260 lb/a
SCN test	125 (low)
Fertilizer/lime applied	NA
Agricultural practice	no-till
Pre-emergence herbicides	Cornerstone (03/30/2020); Cornerstone and Duall II Magnum (04/14/2020); MadDog Plus, Autority XL, Matador-S (06/02/2020)
Planting dates	06/01&02/2020
Post-emergence herbicide	Basagran 5L, Reflex, Warrant, Fusion (07/02/2020)
Harvest dates	MG II & III: 10/07; MG IV Early: 11/13; MG IV Late & V: 11/12
50% frost killing	10/21

Agronomic Information – Pennyrile Region, Christian County

GPS coordinates	36°39'21.8"N 87°20'53.2"W
Soil type	Silt loam Sand: 6.08%, Silt: 79.72%, Clay:14.2% CEC: 8.67meq/100g Plant available water: 24.62% Field capacity water: 36.81% Wilting point water: 12.19%)
Slopes	0-6%
Previous crop	wheat
Soil test (06/15/2020)	pH 5.95, P 27 lb/a, K 169 lb/a
SCN test	125 (low)
Agricultural practice	no-till
Pre-emergence herbicide	NA
Planting date	06/15/2020
Post-emergence herbicides	Basagran 5L, Reflex, Warrant, Fusion (07/27/2020)
Harvest date	MG II & III: 10/15; MG IV Early: 10/16; MGV: 11/13; MG IV Late: 11/16
50% frost killing	10/21

Climate – Pennyrile Region, Caldwell County

Month	Total Monthly Precip. (in.)	Temperatures Monthly Average (F)	Highest Recorded (F)	Lowest Recorded (F)
June	5.27	75	94	63
July	6.94	79	94	63
August	4.25	75	93	58
September	5.15	68	91	57
October	7.47	57	86	57
November	0.33	55	82	24

Data source: weather station – on-site

Climate – Pennyrile Region, Christian County

Month	Total Monthly Precip. (in.)	Temperatures Monthly Average (F)	Highest Recorded (F)	Lowest Recorded (F)
June (6/15-6/30)	2.86	74	93	63
July	6.30	79	95	63
August	3.59	74	92	58
September	2.43	68	90	40
October	4.16	57	88	31
November (11/1 -11/13)	0.48	54	81	23

Data source: weather station – on-site

Table 11. 2020 Kentucky Soybean Variety Performance Tests - Purchase Region, Calloway County

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020
MATURITY GROUP II (relative MG 2.0-2.9)				
ASGROW AG29X9	**66.3**	**60.5**		2.0
AGRIGOLD G2900RX	59.9	57.9	51.6	1.3
GROUP II AVERAGE	**63.1**	**59.2**		**1.7**
LSD (0.10)	8.7	3.6		
C.V.	5.8	5.2		
MATURITY GROUP III (relative MG 3.0-3.9)				
DYNA-GRO S38XS21	**74.2**			1.7
LS3906GL	74.0			2.0
CAVERNDALE CF 383 E3 STSn	73.8			1.0
ARMOR 39-D30	73.5			3.0
PIONEER P33A53X	73.5	66.0		1.0
STEWART 3628R2X	72.4	68.6		1.7
NUTECH 39N05E	72.3			1.3
ASGROW AG36X6	71.9			1.7
LS3976X	71.4	71.4		2.0
ZS3898E3S	71.2			1.7
DYNA-GRO S39EN19	70.7	**72.5**		1.0
STINE 39EA02	70.2	71.2		1.3
NUTECH 36N03E	69.9			1.3
SEED CONSULTANTS SC 3399L™	69.9	70.9		2.0
STEWART 3830R2X	69.8	67.2		1.7
LG SEEDS LGS3840RX	69.5			2.3
AGRIGOLD G3722RX	68.6	70.3	62.9	2.3
GO SOY 38E21S	68.6			1.0
AGRIGOLD G3850RX	68.0	63.6		2.0
LG SEEDS LGS3733RX	67.5			2.0
ASGROW AG39X0	67.2	65.2		1.7
ASGROW AG37X9	67.0	64.4	58.3	2.0
SEED CONSULTANTS SC 7381E™	66.3			1.0
SEED CONSULTANTS SC 8399X™	66.0	70.5	**66.3**	2.0
ASGROW AG33X0	65.5			2.0
B390EE	64.9			1.7
PIONEER P39A58X	64.4			1.3
AGRIGOLD G3620RX	64.1	64.6		1.7
CHANNEL 3821R2X/SR	63.6			1.3
NUTECH 39N04E	63.5			1.3
PIONEER P36A83X	63.3			1.3
LG SEEDS LGS3600RX	63.1			1.7
ASGROW AG38X8	63.0	68.3	62.8	1.3
PIONEER P31A22X	63.0	60.7		1.7
ASGROW AG39X7	61.9	64.7	60.2	1.7
SEED CONSULTANTS SCS 9393RR™	61.9	65.9	63.7	1.3
B389EE	61.1			1.3
DYNA-GRO S3961STS	58.0			1.3
GROUP III AVERAGE	**67.6**	**67.4**	**62.4**	**1.6**
LSD (0.10)	4.1	2.8	2.7	
C.V.	4.4	4.3	5.2	
MATURITY GROUP IV EARLY (relative MG 4.0-4.5)				
NUTECH 43N04E	**85.1**			1.7
PROGENY 4505 RXS	83.3			2.3
DYNA-GRO S45ES10	82.9			2.0
LS4565XS	82.6	75.0		1.7
B459EE	81.4			1.3
STINE 41EB32	81.0			1.7
PROGENY 4444 RXS	80.2	71.8	66.7	3.0
LS4583X	79.8	73.2		2.0
CAVERNDALE CF 453 E3	79.6			3.3
B400EE	79.5			1.7
HS 45E00	79.2			2.3
CAVERNDALE CF 423 E3 STSn	78.8			2.0
LG SEEDS LGS4464RX	77.9			2.0
DYNA-GRO S43EN61	77.8			1.3
STEWART 4527R2X	77.6	74.7	**70.9**	2.3
AGS GS42X19S	77.4	72.0		1.3
AGRIGOLD G4190RX	77.2			3.0
NUTECH 41N03E	77.1			1.3
ARMOR 42-E11	76.9			1.4
LS4407X	76.8	70.7		2.7
TAYLOR SEED T4400XS	76.7			2.7
ARMOR 44-D92	76.6	74.5		2.0
ASGROW AG43X0	76.3	72.6		1.7

continued

Table 11. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020
NUTECH 45N04E	76.3			1.4
AGRIGOLD G4255RX	76.3			1.7
LS4299XS	76.3	74.3		2.7
B420EE	76.2			2.0
B430EE	76.0			1.7
HS 41X70	75.9			2.3
CZ 4241GTLL	75.5			2.3
PIONEER P42A96X	75.5	**75.2**	70.8	2.0
PROGENY 4241 E3	75.4			1.3
SEED CONSULTANTS SC 7421™	75.0			2.3
DYNA-GRO S43XS70	74.9	73.6		2.3
CZ 4240GTLL	74.9			1.0
V 4220 S	74.6			2.7
ASGROW AG42X9	74.4	70.3	62.3	2.0
DM 45X61	74.4			3.3
DYNA-GRO S41ES80	74.3			1.3
V 4520 S	74.1			2.7
GO SOY 433E21	73.7			2.7
ARMOR 44-E44	73.6			2.0
GO SOY 41C19	73.4			2.3
DYNA-GRO S41XS98	73.3	73.8	67.8	2.3
ARMOR 44-D49	73.2			3.3
DM 40X61	73.2			1.7
PROGENY 4265 RXS	73.2	72.6		2.3
MISSION A4448X	72.7			2.7
HS 43E00	72.6			2.3
BLUE RIVER 41DC8	72.4			1.7
USG 7447XTS	72.2			2.3
CHANNEL 4519R2X/SR	72.2	69.8		1.7
UNIVERSITY OF MISSOURI S15-5904RY	72.1			2.3
CHANNEL 4218R2X/SR	71.9	70.2	63.6	2.0
STEWART 4228R2X	71.8	70.6	64.2	1.7
AGRIGOLD G4318RX	71.4			2.3
ARMOR 44-D19	70.5			2.3
STINE 40EB22	70.0			2.3
PIONEER P44A72BX	69.6	71.4	68.2	2.0
STEWART 4029R2X	66.4	72.3		1.7
GROUP IV EARLY AVERAGE	**75.7**	**72.6**	**66.8**	**2.1**
LSD (0.10)	5.2	3.6	2.8	
C.V.	5.1	5.0	5.0	
MATURITY GROUP IV LATE (relative MG 4.6-4.9)				
ARMOR 48-D25	**87.8**	72.3		2.3
LS4795XS	84.4	76.4		2.3
PIONEER P46A86X	83.8			3.0
HS 49X60	83.7	73.3	70.2	2.7
B460EE	82.7			2.7
USG 7461XTS	81.9			2.3
TAYLOR SEED T4880X XTEND	81.3			1.3
ARMOR 49-D14	80.4			3.3
DYNA-GRO S46ES91	80.1			2.3
DYNA-GRO S4751STS	80.0			2.3
MISSION A4618X	79.7			3.0
ARMOR 46-E50	79.5			2.0
GO SOY 48C17S	79.3	67.5		2.3
ASGROW AG48X7	79.3			2.3
HS 46X90	78.9	74.9		2.0
DYNA-GRO S48XT56	78.8	75.1	**71.5**	1.3
NUTECH 46N02E	78.8			1.7
PROGENY 4821 RX	78.5	**79.2**		2.3
ARMOR 47-E02	78.5			2.0
USG 7489XT	78.2			1.7
MISSION A4950X	78.1			3.0
STINE 46EB22	78.0			2.3
PROGENY 4700 RXS	77.8			3.7
TAYLOR SEED T4990XS XTEND	77.6			3.0
ASGROW AG48X9	77.3	72.3	67.0	1.3
LG SEEDS LGS4632RX	77.1			3.0
UNIVERSITY OF MISSOURI S15-3847R	76.6			3.0
TAYLOR SEED T4641ES	76.4			2.3
PIONEER P48A60X	76.0	71.1	70.7	2.3
UNIVERSITY OF MISSOURI S16-5540R	75.6			4.0
DM 49X13	75.1			2.0
BLUE RIVER e4993	75.1	71.3		2.7
HS 48E00	75.1			3.0
BLUE RIVER 49CK9	74.9			2.0

continued

Table 11. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020
MISSION A4828X	74.7			2.7
LS4607XS	74.3			2.7
V 4921 S	74.3			2.7
CZ 4770X	74.2			2.7
UNIVERSITY OF MISSOURI S16-7922C	74.2			4.3
ASGROW AG46X0	74.2	68.7		1.3
LG SEEDS LGS4899RX	74.2	70.2		2.0
PROGENY 4816 RX	74.2	72.2	67.7	1.0
UNIVERSITY OF MISSOURI S16-14379C	74.1			2.0
UNIVERSITY OF MISSOURI S16-7875C	74.1			4.3
ARMOR 46-D09	74.0	71.9		2.0
PROGENY 4775 E3S	73.7			2.0
USG 7496XTS	73.7	69.6	68.3	3.3
DYNA-GRO S48XT90	73.7			3.0
UNIVERSITY OF MISSOURI S16-14730C	73.6			3.0
UNIVERSITY OF MISSOURI S15-3772RY	73.4			2.0
GO SOY 463E20S	73.3			2.7
CAVERNDALE CF 473 E3 STSn	73.3			1.7
CZ 4810X	73.2			2.3
PROGENY 4851 RX	72.9			3.3
AGS GS47X19	72.7			3.0
STEWART 4927R2X	72.5	70.1	64.5	2.7
UNIVERSITY OF MISSOURI S16-11644C	72.5			4.7
PROGENY 4807 E3S	72.3			4.0
LS4806XS	72.1			2.3
GO SOY 481E19	72.1			1.3
LS4999X	71.8	70.6		2.0
ARMOR 48-E81	71.7			2.3
PROGENY 4970 RX	71.7			3.7
DYNA-GRO S46XS60	71.2	68.2		2.7
LS4706GL	71.0			2.0
USG 7470XT	70.9	67.5		1.3
B470EE	70.6			1.7
ASGROW AG47X9	70.4	67.0	62.3	2.3
STINE 48EB02	70.3			2.3
PROGENY 4902 E3	69.4			4.7
AGRIGOLD G4620RX	68.8			2.3

continued

Table 11. continued

BRAND VARIETY	YIELD (BU/AC)[A/B] 2020	2019-2020	2018-2020	LODGING 2020
PROGENY 4620 RXS	68.2	65.7	62.5	2.7
CZ 4730X	67.5			1.7
PROGENY 4908 E3S	67.5			2.3
PROGENY 4682 E3	67.4			2.0
DYNA-GRO S46XT80	67.2	70.6		2.7
DM 48E73	66.9			2.0
PROGENY 4602 LR	65.8			2.7
CAVERNDALE CF 461 LL/GT27/STSn	64.7			3.7
PENNYRILE (long term check-released 1987)	51.4	59.7	51.5	3.0
GROUP IV LATE AVERAGE	**74.5**	**70.7**	**65.6**	**2.5**
LSD (0.10)	4.5	3.2	2.5	
C.V.	4.4	4.6	4.5	
MATURITY GROUP V (relative MG 5.0-5.9)				
LS5386X	**75.5**			1.0
ZS5098E3	75.4			1.7
LS5009XS	74.5			2.0
ARMOR 51-E53	72.5			2.7
LS5087X	72.3	67.9		2.3
ARMOR 50-D50	70.8			2.3
UNIVERSITY OF MISSOURI S16-3739RY	69.1			4.0
PROGENY 5016 RXS	69.1	**69.2**	**69.3**	2.0
PROGENY 5211 E3	68.2			1.7
UNIVERSITY OF MISSOURI S16-15170C	65.8			1.3
UNIVERSITY OF MISSOURI S16-3747R	64.1			3.0
PROGENY 5170 RX	62.7	65.9		2.0
UNIVERSITY OF MISSOURI S16-15809C	62.0			3.3
PROGENY 5252 RX	61.0	64.6	64.5	2.7
ESSEX (long term check-released 1974)	57.1	58.7	56.5	2.3
UNIVERSITY OF MISSOURI S16-11651C	56.6			2.7
GROUP V AVERAGE	**67.3**	**65.2**	**63.4**	**2.3**
LSD (0.10)	5.1	3.4	2.5	
C.V.	5.5	5.2	4.7	

A Within a maturity group, shaded yield are not significantly different (0.10) from the highest yielding cultivar (bold) of that maturity group and year column.

B The 2018-2020 yield data were collected at the Murray State University Research Farm in Calloway Co., KY.

Agronomic Information – Purchase Region, Calloway County

GPS coordinates	36°36'48.5"N 88°20'56.0"W
Soil type	Silt loam Sand: 6.08%, Silt: 73.83%, Clay:14.57% CEC: 8.75 meq/100g Plant available water: 23.19% Field capacity water: 34.36% Wilting point water: 11.17%
Slopes	0-2%
Previous crop	Tobacco, winter wheat (cover crop)
Soil test (06/03/2020)	pH 5.6, P 39 lb/a, K 204 lb/a
SCN test	250 (low)
Agricultural practice	no-till
Pre-planting herbicides	NA
Planting date	06/03/2020
Post-emergence herbicides	none
Harvest date	MG II & III: 10/06; MG V: 11/09; MG IV Early & IV Late: 11/10
50% frost killing	10/21

Climate – Purchase Region, Calloway County

Month	Total Monthly Precip. (in.)	Temperatures: Monthly Average (F)	Highest Recorded (F)	Lowest Recorded (F)
June (6/3-6/30)	4.52	76	96	65
July	6.85	79	97	65
August	2.99	75	94	59
September	1.96	69	93	46
October	6.24	58	84	35
November (11/1-11/09)	0	57	80	27

Data source: weather station – on-site

University of Kentucky
College of Agriculture, Food and Environment

12-2020