

# 2019 Soybean Yield and Quality Contest

## Summary of Management Practices

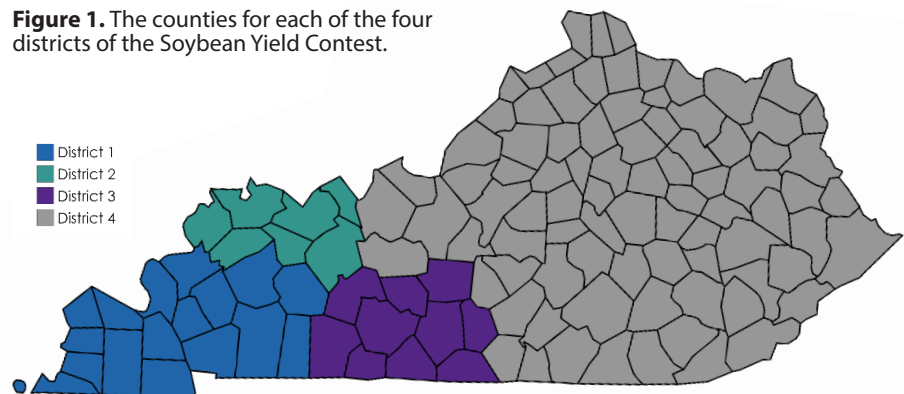
*Carrie Knott, Tyler Miller, Clint Hardy, Danny Adams, Mike Smith, Matt Adams, Curtis Dame, Mike Bullock, Matt Futrell, Curt Judy, Leann Martin, Michelle Simon, Darrell Simpson, and Paul Winkler*

In Kentucky, farmers grow soybeans in two common soybean production systems: full season and double crop. Farmers plant full season soybeans in the spring and harvest them that fall, so they have harvested one crop in one calendar year. Farmers plant double crop soybeans after wheat harvest in June. These soybeans are harvested later that fall, making them the second crop harvested in the same calendar year. Both systems are important to the overall production of soybean in Kentucky. Identifying management practices that maximize yield of each system is a vital step in identifying the most profitable management systems for Kentucky. Therefore, in 1980, an annual soybean yield contest was initiated in Kentucky to document the agronomic practices utilized by producers.

In 2019, there were 12 possible yield awards. Four statewide yield awards were given for full season entries: First Place Irrigated; Second Place Irrigated; First Place Non-Irrigated; and Second Place Non-Irrigated. Four possible statewide yield awards were given for the same categories of the double crop entries. However, only one irrigated double crop entry was submitted in 2019; therefore, a Second Place Double Crop Irrigated was not awarded. The final four awards were for the highest yielding entry of each of four districts (Figure 1).

Beginning in 2007, the contest expanded to include four awards for soybean quality: First Place Oil Concentration; Second Place Oil Concentration; First Place Protein Concentration; and Second Place Protein Concentration. Protein and oil concentration of soybean are two important attributes that are considered worldwide by purchasers of soybean. Therefore, documenting management practices that improve oil and protein concentration in Kentucky may result in increased value of Kentucky soybean.

**Figure 1.** The counties for each of the four districts of the Soybean Yield Contest.



**District 1:** Ballard, Caldwell, Calloway, Carlisle, Christian, Crittenden, Fulton, Graves, Hickman, Hopkins, Livingston, Lyon, Marshall, McCracken, Muhlenberg, Todd, Trigg  
**District 2:** Daviess, Hancock, Henderson, McLean, Ohio, Union, Webster  
**District 3:** Allen, Barren, Butler, Edmonson, Hart, Logan, Metcalfe, Monroe, Simpson, Warren  
**District 4:** Rest of the State

### Determination of Yield Entries

Any producer who produced ten (10) acres or more of soybeans in Kentucky was eligible to enter the contest. Each contest field was at least ten (10) continuous acres, with a minimum of three (3) harvested acres. Field measurement and yield determination were determined by supervisor(s) that are approved by each county's yield contest committee (typically the agricultural and natural resources county extension agent). There were no restrictions on management practices.

A producer could enter more than one yield entry per category, if the entries were from different fields. A producer could only win one award per category (Full Season; Double Crop; Oil Concentration; or Protein Concentration).

### Determination of Quality Entries

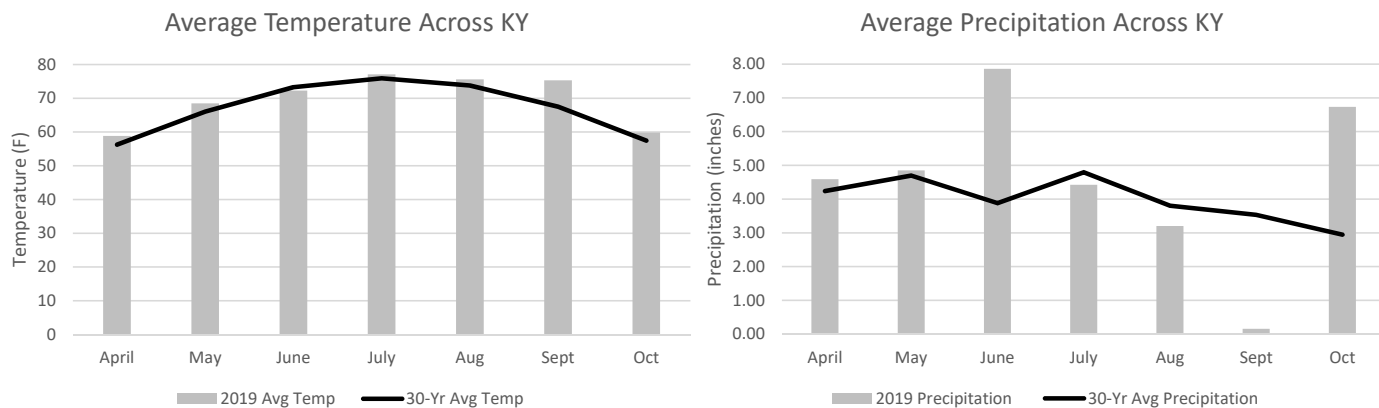
Any yield contest entry was eligible to be submitted to the Quality Contest. Contestants placed a one-pound seed sample from the harvested soybean into a plastic bag. Samples were then sent to the University of Minnesota Research Analytical Laboratory for analyses of oil and protein concentration.

### Overall Observations

#### Growing Conditions

Average temperature across the entire state from April to October was fairly similar to the 30-year average except in September, which was 8°F warmer than the 30-year average (Figure 2). The total precipitation, by month, was about 4 inches more than the 30-year average in June and October, and it was about 3.5 inches less than the 30-year average in September (Figure 2).

For District 1, average temperature was similar to the 30-year average for all months except September, which was about 6°F warmer than the 30-year average (Figure 3). Total precipitation in District 1 was greater than the 30-year average throughout the growing season except in April and September (Figure 3). For District 2, average temp was also similar to the 30-year average for all months except September, which was about 5°F warmer than average. Total precipitation in District 2 was greater than the 30-year average from April to June and October and less than the 30-year average in July and September.



**Figure 2.** Average temperature and precipitation in 2019 and the 30-year average temperature across Kentucky.

For Districts 3 and 4, average temperature was similar to the 30-year average for all months except September, which was 10°F warmer than the 30-year average for District 3 and 8°F warmer than the 30-year average for District 4. For District 3, total precipitation was less than the 30-year average in May, July, and September and much greater than the 30-year average in June and October. For District 4, total precipitation was greater than the 30-year average in June and October and less than the 30-year average in July, August, and September (Figure 3).

### Yield Contest Entries

In 2019, a total of 33 entries were submitted from 12 Kentucky counties (Table 1; Figure 4). Twenty-nine entries were full season, of which seven entries were irrigated (Table 2). There were four double crop entries; one was irrigated and the remaining three were non-irrigated (Table 3).

The 2019 yield contest produced numerous contest records. First, the average yield of all full season entries was 86.91 bushels per acre, which was the greatest yield since the contest began in 1980 (Table 1). Five entries yielded over 100 bushels per acre, which was the most 100+ yields ever entered in the contest (Table 1). One of the earliest planting dates ever documented, which exceeded 100 bushels per acre, was also submitted: March 23 (Table 4). Finally, some of the lowest seeding rates for the State Yield Contest

winner were documented: 140,000 seeds per acre for the winning Full Season entry and 160,000 seeds per acre for the winning Double Crop entry (Tables 4 and 5).

When examining only the state Yield Contest winners for full season soybean, the average yield was 102.15 bushels per acre; all entries had a seeding rate of 140,000 seeds per acre (Table 4). One entry was planted in late March, two in mid-April, and one in early May (Table 4). For the double crop state yield contest winners, the average yield was 68.98 bushels per acre, with an average seeding rate of 160,000 seeds per acre, and two of the entries were planted in mid-June and one in mid-July (Table 5).

Of the remaining entries, four district winners were awarded, regardless of production system (Figure 1). All of the district winners were full season soybean planted by May 1. The average yield was 92.88 bushels per acre with an average seeding rate of about 145,000 seeds per acre (Table 6).

### Quality Entries

In 2019, fifteen entries were submitted to the Soybean Quality contest. Twelve entries were from full season soybean and the remaining three entries were double crop soybean (Table 7).

In 2019, both entries with the greatest oil concentration were full season soybean planted before the end of May with an average seeding rate of 150,000 seeds per acre (Table 8). The winning entry, with

23.8 percent oil, was the third greatest oil concentration since the contest began. (In 2015 and 2016, oil concentration was 24.23 and 25.97%, respectively.) For the 2019 protein entries, both winners were double crop entries planted by mid-June with an average seeding rate of 160,000 seeds per acre (Table 8). The winning 2019 entry of 41.34 percent protein was the second greatest protein concentration since the quality contest began. (In 2016, the winning entry had 41.73% protein.)

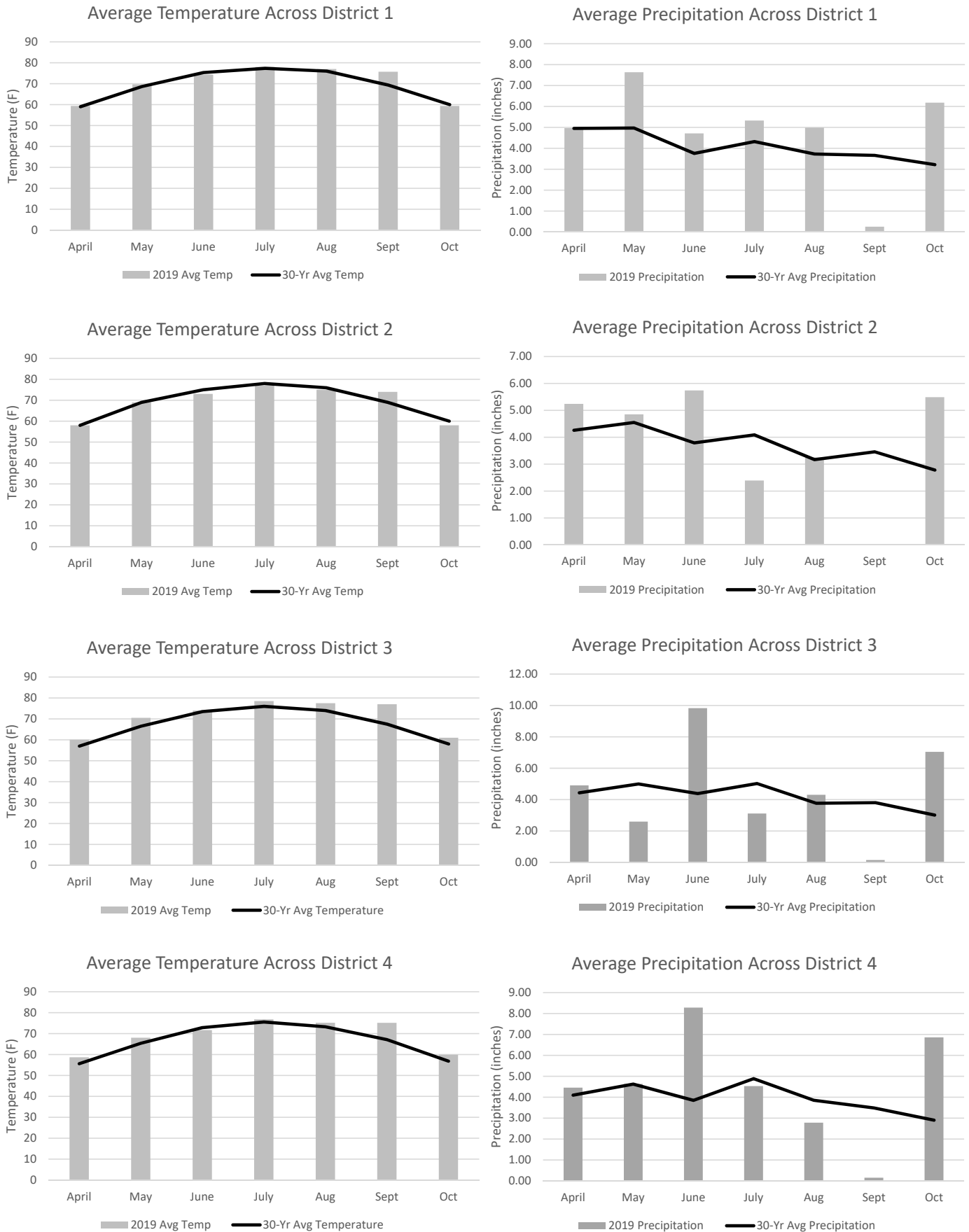
### Acknowledgments

The yield and quality contests are jointly sponsored by the University of Kentucky Cooperative Extension Service, the Kentucky Soybean Association with support from the Kentucky Soybean Promotion Board, and participating Agribusinesses related to soybean production. In 2019, the Agribusinesses that supported the contests were AgriGold, Bayer, Beck's, Channel Seed, FMC, Pioneer, and Stine.

Mention or display of a trademark, proprietary product, or firm in text or figures does not constitute an endorsement and does not imply approval to the exclusion of other suitable products or firms.

### Contact

Dr. Carrie Knott  
 PO Box 469  
 348 University Drive  
 Princeton, KY 42445  
 859-562-1320



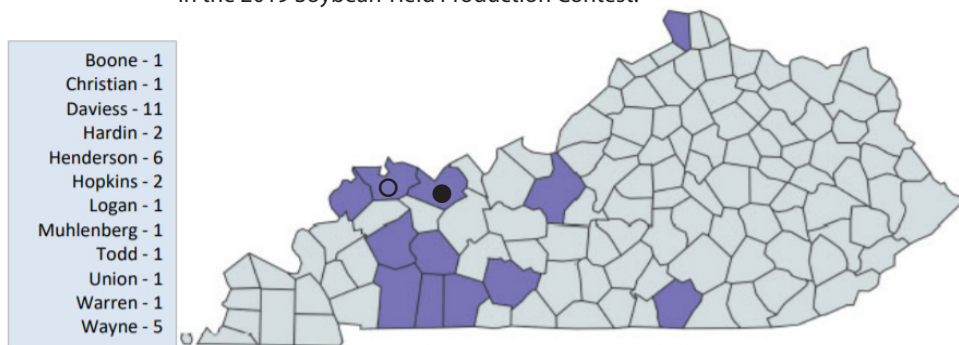
**Figure 3.** Average temperature and precipitation in 2019 and the 30-year average temperature by district across Kentucky.

**Table 1. Entries submitted to the 2019 Soybean Yield Contest.**

Entry	Category	Grower/Farm	Irrigated	County	Company	Brand/Variety	Yield (bu/A)
1.	Full Season	Phillip Meredith	Yes	Henderson	AgriGold	G3520RX	108.23
2.	Full Season	Lea Meredith	Yes	Henderson	Pioneer	P33A53X	102.84
3.	Full Season	Fischer CrossCreek	No	Daviess	AgriGold	G3722RX	101.78
4.	Full Season	Flat Lick Farms	No	Daviess	Dyna-Gro	48RS53	101.44
5.	Full Season	Meredith Farms	No	Henderson	AgriGold	G2900RX	100.88
6.	Full Season	Running T Farms	No	Union	NuTech	7352X	99.84
7.	Full Season	Phillip Meredith	No	Henderson	Pioneer	P31A22X	99.75
8.	Full Season	Meredith Farms	Yes	Henderson	Pioneer	P33A53X	99.14
9.	Full Season	O'Bryan Grain Farms	No	Daviess	Pioneer	P35T58R	98.65
10.	Full Season	PPJ Farms	No	Daviess	Pioneer	P39A58X	97.80
11.	Full Season	Schwenke Brothers Farm	Yes	Boone	Pioneer	P37T09L	97.14
12.	Full Season	Stephen Farm	No	Daviess	AgriGold	G2900RX	96.29
13.	Full Season	Andrew Bullock	No	Muhlenberg	LG Seeds	LGS3777RX	94.76
14.	Full Season	Mark Thomas	Yes	Hardin	AgriGold	3722RX	91.41
15.	Full Season	Martin Farms	No	Todd	Asgrow	AG49X9	91.39
16.	Full Season	PPJ Farms	No	Daviess	Pioneer	P36A83X	90.77
17.	Full Season	Phillip Meredith	No	Henderson	AgriGold	G2900RX	87.58
18.	Full Season	Paul Howlett	Yes	Hardin	LG Seeds	LG4845RX	87.42
19.	Full Season	Castlen Bros Farms	No	Daviess	Pioneer	P42A96X	86.21
20.	Full Season	Western Kentucky Univ.	No	Warren	Credenz	CZ 3929GTLL	85.51
21.	Full Season	PPJ Farms	No	Daviess	Pioneer	P35T58	77.82
22.	Full Season	Sparks Farms	No	Daviess	Asgrow	AG42X9	76.12
23.	Double Crop	Armistead Farms	Yes	Logan	Remington Seed	-	74.00
24.	Double Crop	Folz Farm	No	Christian	Beck's	4991X2	72.02
25.	Full Season	Pate Weir	No	Hopkins	Dyna-Gro	-	71.44
26.	Full Season	Thomas Kelsay	No	Wayne	Beck's	3842FP	68.99
27.	Full Season	David Denney	No	Wayne	Pioneer	P46A16R	65.19
28.	Full Season	Thomas Kelsay	No	Wayne	Beck's	3842FP	65.14
29.	Full Season	Pate Weir	No	Hopkins	Dyna-Gro	-	64.29
30.	Double Crop	Goetz Bros Farms	No	Daviess	Asgrow	AG44X6	60.90
31.	Full Season	David Denney	No	Wayne	Pioneer	P44A72BX	57.80
32.	Full Season	PPJ Farms	No	Daviess	Pioneer	P42A96	54.70
33.	Double Crop	KSW Farms	No	Wayne	Pioneer	P46A16R	39.32

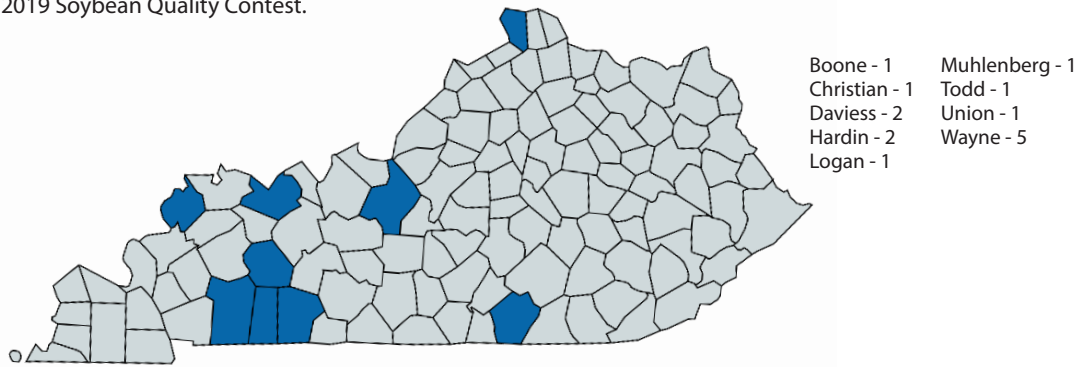
**Overall Contest Average 74.23**  
**Full Season Average 86.91**  
**Double Crop Average 61.56**

**Figure 4.** Number of soybean yield contest entries submitted in the 2019 Soybean Yield Production Contest.



○ Winning irrigated entry submitted from Henderson County.  
 ● Winning non-irrigated entry submitted from Daviess County.

**Figure 5.** Counties and number of entries submitted in the 2019 Soybean Quality Contest.



**Table 2. Summary of all production practices for the 29 full season Yield Contest entries.**

Production Practices		Irrigated Entries			Non-irrigated Entries				
		Bushels/A							
		100	90	80	100	90	80	70	<70
		Entries for each Practice							
		2	3	1	3	8	3	3	6
Average Yield (bu/A)		105.53	95.90	87.42	101.37	96.16	86.43	75.12	62.69
Seed Company	AgriGold	1	1		2	1	1		
	Asgrow					1		1	
	Beck's								2
	Credenz						1		
	Dyna-Gro				1			1	1
	LG Seeds			1		1			
	NuTech					1			
	Pioneer	1	2			4	1	1	3
Herbicide Tolerance Technology	Roundup Ready 2 Yield				1	1		1	3
	Roundup Ready 2 Xtend	2	2	1	2	7	2	2	3
	Liberty Link		1				1		2
	BOLT								1
	GT27						1		
Seed Treatment	Agrishield Max	1		1	1				
	Agrishield Max; ILeVO					1			
	Agrishield ST					1	1		
	Awaken ST		1						
	ILeVO					1			
	LumiGEN		1			1			
	Lumisena						1		
	Pioneer					1			
	PPST	1	1			3		1	
	Product Not Stated				2		1	2	6
Seed Inoculant	Agrishield Max					1			
	PPST 120+	1	1			3		1	
	TerraMax								2
	Product Not Stated		1	1	2	1	1		2
Foliar Insecticide	Endigo	2	2		1	1	1		
	Hero		1	1	1	3		1	
	Lamcap					1			
	Proaxis								2
	Silencer								2
	Sultrus					3		1	
	Tombstone				1			1	1
	Product Not Stated						1		

continued

Table 2. continued

Production Practices		Irrigated Entries			Non-irrigated Entries				
		Bushels/A							
		100	90	80	100	90	80	70	<70
		Entries for each Practice							
		2	3	1	3	8	3	3	6
Foliar Fungicide	Fitness, Satori and Quadris Top				1				
	Fortix					2		1	2
	Lucento			1					
	Miravis Top	2	1		1	2	1	1	
	Priaxor		1		1	1	1	1	1
	Priaxor, Propiconazole, and Bifenthrin (R3); Revytek and Bifenthrin (R5)						1		
	Priaxor and Propi-Star					1			
	Trivapro					1			
	Quadris Top SBX		1			1			2
Herbicide	Pre-Emergence Only								
	Post-Emergence Only	2	1		1	2	1	1	2
	Pre+Post Emergence		2	1	2	6	2	2	4
Tillage	No-Till		1	1		4	2	2	4
	Disc Cultivator					1		1	1
	Fall Chisel, Spring Turbo Till	2	1		1	1			
	Fall Disc					1			
	Spring Disc					1			
	Spring Disc x 2				1				1
	TurboMax				1				
	Turbo Till						1		
	Turbo Till x 2					1			
	Vertical Tillage		1						
Seeds/A	126,000 to 150,000	2	3	1	3	7	3	3	4
	151,000 to 175,000					1			2
Planting Date	before April 20	2	1		2	2	2		
	Apr 20-30		1			5		1	
	May 1-10		1		1	1			
	May 11-20			1				1	2
	May 21-31						1	1	2
	June 1-10								1
	June 11-20								1
Harvest Date	before Sept 14	1			1	3	1		
	Sept 15-30	1	3		1	3		2	2
	Oct 1-15					2	1	1	1
	Oct 16-31			1	1		1		3
Row Width	7.5 inch					2		1	3
	15 inch	2	3		3	6	3	1	3
Nitrogen Applied	None	2	1		3	8	3	3	6
	1 to 40 lbs/A		2	1					
P <sub>2</sub> O <sub>5</sub> Applied	None					2		2	5
	1 to 40 lbs/A		1						
	41 to 80 lbs/A	2	2		1	2	2		
	>120 lbs/A						1		
Total K <sub>2</sub> O (lbs/A)	None					1		1	4
	41 to 80 lbs/A	2	3		1	1	1		
	81-120 lbs/A					2	1		
	>120 lbs/A						1	1	1

continued

**Table 2. continued**

		Irrigated Entries			Non-irrigated Entries				
		Bushels/A							
		100	90	80	100	90	80	70	<70
		Entries for each Practice							
<b>Production Practices</b>		<b>2</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>8</b>	<b>3</b>	<b>3</b>	<b>6</b>
Manure/Litter Applied	2 tons								2
	3 tons chicken litter								2
	3 tons swine compost					1			
	1.5 ton poultry litter		1						
	2 ton turkey litter					2		1	
Other Fertilizer Applied	3 qts Brandt Smart B-Mo					1			
	NutriSync Complete (10-7-4)		1						
	Reinforce K				1				
	Variable Rate			1					
Previous Crop	Corn	2	3	1	3	7	3	3	2
	Soybean								3
	Wheat								1
Other Inputs	Monty's Plant Food Foliar Program					1			
	Radiate, Monty's Liquid Carbon		1						

**Table 3. Summary of all production practices for the four double crop Yield Contest entries.**

		Irrigated	Non-Irrigated	
		Bushels/A		
		70	70	< 70
		Entries for each Practice		
Production Practices		1	1	2
Average Yield (bu/A)		74.00	72.02	50.11
Seed Company	Asgrow			1
	Beck's		1	
	Pioneer			1
	Remington Seed	1		
Herbicide Tolerance Technology	Roundup Ready 2 Yield			1
	Roundup Ready 2 Xtend		1	1
Seed Treatment	Escalate with Nemasect		1	
	Intego Suite and ILeVO	1		
	Product Not Stated			2
Seed Inoculant	N-dure			1
Foliar Insecticide	Biofen and Lamcap II	1		
	Province II		1	
Foliar Fungicide	Bumper and Priaxor	1		
	Stratego YLD		1	
Herbicide	Post-Emergence Only	1	1	2
Tillage	No-Till	1		2
Seeds/A	151,000 to 175,000	1	1	1
	176,000 to 200,000			1
Planting Date	June 11-20	1	1	
Harvest Date	Oct 16-31		1	1
	Nov 1-15	1		1
Row Width	7.5 inch	1		
	15 inch		1	2
Nitrogen applied	None			2
	1 to 40 lbs/A	1	1	
P <sub>2</sub> O <sub>5</sub> applied	None			1
	81-120 lbs/A		1	
Total K <sub>2</sub> O (lbs/A)	None			1
	81-120 lbs/A		1	
Other Fertilizer Applied	Products			1
Previous Crop	Wheat	1	1	2



**Table 4. Agronomic practices utilized to produce the state Yield Contest winning entries for irrigated and non-irrigated full season soybean in Kentucky in 2019.**

Production Practices	Full Season-Irrigated		Full Season-Non-Irrigated	
	First Place	Second Place	First Place	Second Place
Grower/Farm	Phillip Meredith	Schwenke Brothers Farm	Fischer CrossCreek	Flat Lick Farms
County	Henderson	Boone	Daviess	Daviess
Seed Company	AgriGold	Pioneer	AgriGold	Dyna-Gro
Brand	G3520RX	P37T09L	G3722RX	48RS53
Yield (bu/A)	108.23	97.14	101.78	101.44
Division	Full Season	Full Season	Full Season	Full Season
Tillage	1		1	1
Soil Preparation	Fall Chisel, Spring Turbo Till	Vertical Tillage	TurboMax	Spring Disc x 2
Planting Date	4/17/2019	4/18/2019	5/7/2019	3/23/2019
Row Width (in.)	15	15	15	15
Seeds/A	140,000	140,000	140,000	140,000
Harvest Date	9/17/2019	9/30/2019	9/16/2019	10/18/2019
Previous Crop	Corn	Corn	Corn	Corn
Total N (lbs/A)	0	18	Variable Rate	0
Total P <sub>2</sub> O <sub>5</sub> (lbs/A)	50	46	Variable Rate	VRT
Total K <sub>2</sub> O (lbs/A)	70	60	Variable Rate	VRT
Total Other (lbs/A)				Reinforce K
Seed Treatment	AgriShield Max	LumiGEN	AgriShield Max	Yes
Seed Inoculant	AgriShield Max		AgriShield Max	Yes
Foliar Insecticide	Endigo	Endigo	Tombstone	Hero
Foliar Fungicide	Miravis Top	Priaxor	Priaxor	Quadris Top; Satori; Fitness
Herbicide: Pre-Emergence		Verdict	Dual (1.5 pt)	Sequence
Herbicide: Post-Emergence	Buccaneer Plus, Engenia, Paralell, Fomesafen	Liberty	Prefix	Prefix
Herbicide Tolerance Technology	Roundup Ready 2 Xtend	Liberty Link	Roundup Ready 2 Xtend	Roundup Ready 2 Yield

**Table 5. Agronomic practices utilized to produce the state Yield Contest winning entries for irrigated and non-irrigated double crop soybean in Kentucky in 2019.**

Production Practices	Double Crop-Irrigated	Double Crop-Non-Irrigated	
	First Place	First Place	Second Place
Grower/Farm	Armistead Farms	Folz Farm	Goetz Bros Farms
County	Logan	Christian	Daviess
Company	Remington Seed	Beck's	Asgrow
Brand	--	4991X2	AG44X6
Yield (bu/A)	74.00	72.02	60.90
Division	Double Crop	Double Crop	Double Crop
Planting Date	6/15/2019	6/14/2019	7/14/2019
Row Width (in.)	7.5	15	15
Seeds/A	155,000	165,000	160,000
Harvest Date	11/4/2019	10/18/2019	11/4/2019
Previous Crop	Wheat	Wheat	Wheat
Total N (lbs/A)	35 through pivot at R3	0	0
Total P <sub>2</sub> O <sub>5</sub> (lbs/A)	0	0	0
Total K <sub>2</sub> O (lbs/A)	0	0	0
Total Other (lbs/A)			2.5 gal (3-18-18)
Seed Treatment	Intego Suite and ILevo	Escalate with Nemasect	
Insecticide	Biofen (2 oz), Lamcap 2 (1 oz)	Province II	
Fungicide	Bumper 41.8 EC (4 oz), Priaxor (4 oz)	Stratego Yld	
Herbicide: Post-Emergence	Roundup PowerMAX (32 oz), Outlook (12.5 oz)	Thundermaster (2.5 pt), Buccaneer 5 Extra (9 oz), Zidua SC (1.6 oz)	Roundup (1 qt), Engenia (1 qt)
		Roundup Ready 2 Xtend	Roundup Ready 2 Xtend

**Table 6. Agronomic practices utilized to produce the district Yield Contest winning entries in Kentucky in 2019.**

Production Practices	District			
	1	2	3	4
Grower/Farm	Andrew Bullock	Running T Farms	Western Kentucky Univ.	Mark Thomas
County	Muhlenberg	Union	Warren	Hardin
Company	LG Seeds	NuTech	Credenz	AgriGold
Brand	LGS3777RX	7352X	CZ 3929GTLL	3722RX
Yield (bu/A)	94.76	99.84	85.51	91.41
Division	Full Season	Full Season	Full Season	Full Season
Tillage	Turbo Till x 2	Disc Cultivator	No-Till	No-Till
Planting Date	4/27/2019	4/11/2019	4/18/2019	5/1/2019
Row Width (in.)	15	15	15	15
Seeds/A	165,000	130,000	130,000	149,400
Irrigated	No	No	No	Yes
Harvest Date	10/10/2019	9/11/2019	10/15/2019	9/27/2019
Previous Crop	Corn	Corn	Corn	Corn
Total N (lbs/A)	0	17.5	0	0
Total P <sub>2</sub> O <sub>5</sub> (lbs/A)	0	70	150	40
Total K <sub>2</sub> O (lbs/A)	0	90	150	50
Total Manure (lbs/A)				1.5 ton poultry litter
Total Other (lbs/A)				NutriSync Complete (10-7-4)
Seed Treatment	AgriShield Max; ILeVO	LumiGEN		Awaken ST
Seed Inoculant	AgriShield Max			Yes
Insecticide	Hero	Sultrus		Hero
Fungicide	Trivapro	Priaxor	Priaxor + Propiconazole Bifenthrin (R3), Revytek + Bifenthrin (R5)	Quadris Top SBX
Herbicide: Pre-Emergence	LeadOff, 2,4-D, Roundup	Zidua Pro, Roundup, Barrage, Grounded	Roundup (1 qt); 2,4-D (1qt); Zidua Pro (6oz)	Powermax, 2,4-D, Verdict
Herbicide: Post-Emergence	Roundup	Anthem Max, Roundup, Engenia, Grounded	Liberty (32 oz); Outlook (12 oz); Clethodim (10 oz)	PowerMAX, Classic
	Roundup Ready 2 Xtend	Roundup Ready 2 Xtend	GT/ Liberty Link	Roundup Ready 2 Xtend
Other Inputs	Monty's Plant Food Foliar Program			Radiate, Monty's Liquid Carbon

**Table 7. Entries submitted to the 2019 Soybean Quality Contest.**

Entry	Category	Grower/Farm	County	Brand/ Company	Variety	Percent	
						Oil	Protein
1.	Full Season	Schwenke Brothers Farm	Boone	Pioneer	P37T09L	23.80	37.81
2.	Full Season	David Denney	Wayne	Pioneer	P44A72BX	23.26	40.31
3.	Full Season	Castlen Bros Farms	Daviess	Pioneer	P42A96X	23.11	37.88
4.	Full Season	Martin Farms	Todd	Asgrow	AG49X9	23.08	39.12
5.	Full Season	Running T Farms	Union	NuTech	7352X	22.87	38.13
6.	Full Season	Thomas Kelsay	Wayne	Beck's	3842FP	22.86	39.5
7.	Full Season	PPJ Farms	Daviess	Pioneer	P42A96	22.61	39.48
8.	Full Season	Thomas Kelsay	Wayne	Beck's	3842FP	22.54	38.59
9.	Full Season	Mark Thomas	Hardin	AgriGold	3722RX	22.53	38.36
10.	Full Season	Andrew Bullock	Muhlenberg	LG Seeds	LGS3777RX	22.35	39.92
11.	Full Season	Paul Howlett	Hardin	LG Seeds	LG4845RX	22.06	39.89
12.	Full Season	David Denney	Wayne	Pioneer	P46A16R	21.96	40.14
13.	Double Crop	Armistead Farms	Logan	Remington Seed	--	22.37	41.34
14.	Double Crop	Folz Farm	Christian	Beck's	4991X2	21.76	40.32
15.	Double Crop	KSW Farms	Wayne	Pioneer	P46A16R	21.15	40.18

**Average of Entries    22.55    39.40**  
**Full Season Average    22.75    39.09**  
**Double Crop Average    21.76    40.76**

**Table 8. Agronomic practices utilized to produce the state Quality Contest winning entries in Kentucky in 2019.**

Production Practices	Oil		Protein	
	First Place	Second Place	First Place	Second Place
Grower/Farm	Schwenke Brothers Farm	David Denney	Armistead Farms	Folz Farm
County	Boone	Wayne	Logan	Christian
Company	Pioneer	Pioneer	Remington Seed	Beck's
Brand/Variety	P37T09L	P44A72BX		4991X2
Oil (%)	23.80	23.26	22.37	21.76
Protein (%)	37.81	40.31	41.34	40.32
Yield (bu/A)	97.14	57.80	74.00	72.02
Division	Full Season	Full Season	Double Crop	Double Crop
Soil Preparation	Vertical Tillage			
Planting Date	4/18/2019	5/23/2019	6/15/2019	6/14/2019
Row Width (in.)	15	7.5	7.5	15
Seeds/A	140,000	160,000	155,000	165,000
Irrigated	Yes	No	Yes	No
Harvest Date	9/30/2019	10/18/2019	11/4/2019	10/18/2019
Previous Crop	Corn	Soybean	Wheat	Wheat
Total N (lbs/A)	18	0	35 through pivot at R3	0
Total P <sub>2</sub> O <sub>5</sub> (lbs/A)	46	0	0	0
Total K <sub>2</sub> O (lbs/A)	60	0	0	0
Total Manure (lbs/A)		3 tons chicken litter		
Seed Treatment	LumiGEN		Intego Suite and ILevo	Escalate with Nemasect
Seed Inoculant		TerraMax		
Foliar Insecticide	Endigo	Proaxis	Biofen (2 oz), Lamcap 2 (1 oz)	Province II
Foliar Fungicide	Priaxor	Fortix	Bumper 41.8 EC (4 oz), Priaxor (4 oz)	Stratego Yld
Herbicide: Pre-Emergence	Verdict	Roundup (3 pts)		
Herbicide: Post-Emergence	Liberty	Roundup (3 pts), First Rate (0.3 oz), Camo	Roundup PowerMAX (32 oz), Outlook (12.5 oz)	Thundermaster (2.5 pt), Buccaneer 5 Extra (9 oz), Zidua SC (1.6 oz)
Herbicide Tolerance Technology	Liberty Link	Bolt/ Roundup Ready 2 Xtend		Roundup Ready 2 Xtend



Mention or display of a trademark, proprietary product, or firm in text or figures does not constitute an endorsement and does not imply approval to the exclusion of other suitable products or firms.