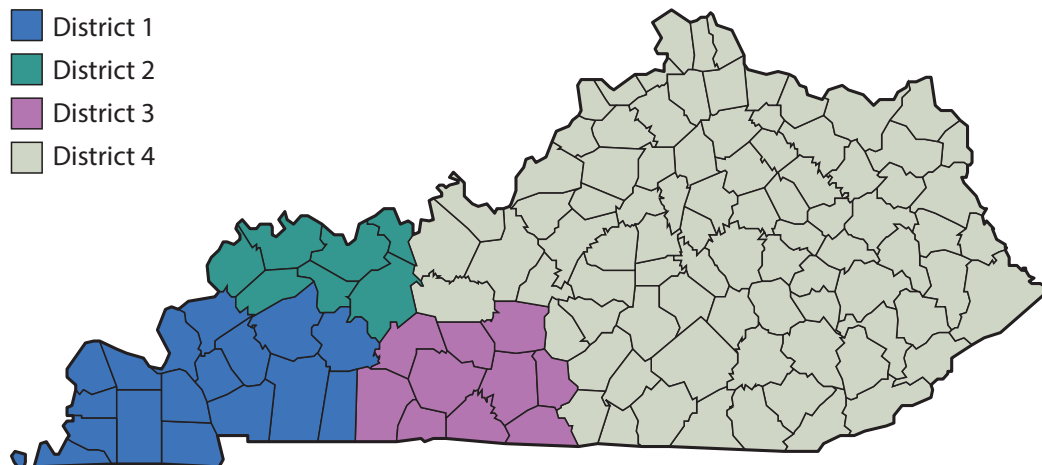


2022 Soybean Yield and Quality Contest

Summary of Management Practices

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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

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. Therefore, in 1980, an annual soybean yield contest was initiated in Kentucky to document the agronomic practices utilized by producers.

In 2022, there were 12 possible yield awards. Four statewide yield awards were awarded 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 awarded for the same categories of the double crop entries and 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, Second Place Protein Concentration. Protein and oil concentration of soybean are two important qualities that are considered worldwide by soybean purchasers. Therefore, documenting management practices that improve oil and protein concentration in Kentucky may result in increased value of Kentucky soybean. This was the first year that oil and protein samples were required to enter the yield contest.

Determination of Yield Entries

Any farmer who produced ten (10) acres or more of soybean 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, Protein Concentration).

Determination of Quality Entries

All entries were required to submit samples for the Quality Contest. Contestants placed a one-pound seed sample from the harvested soybean into a plastic bag. Samples were then sent to an independent out of state lab for analyses of oil and protein concentration.

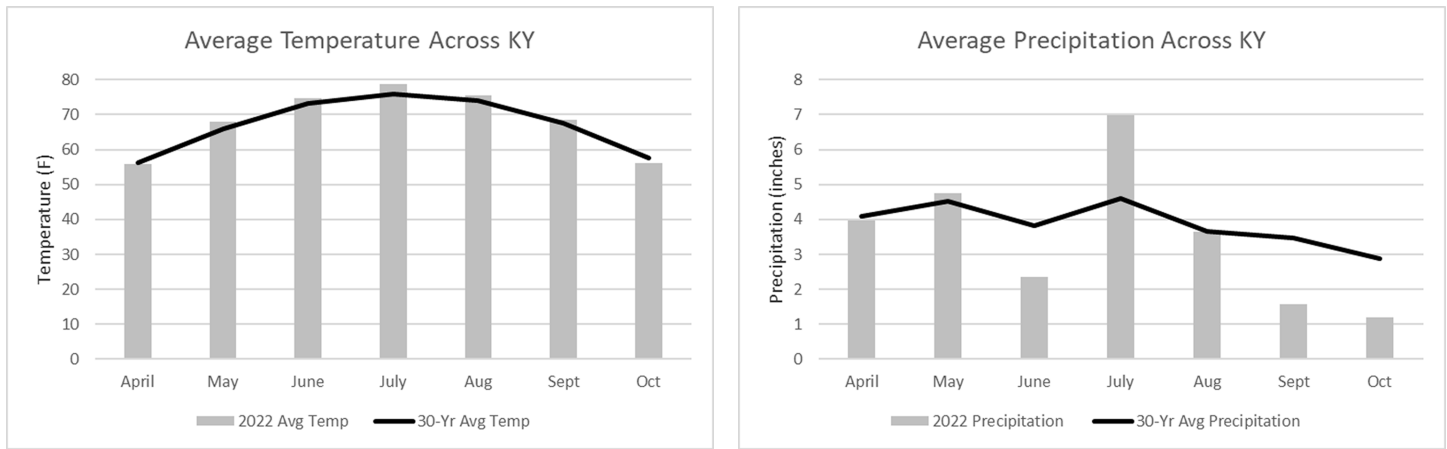


Figure 2. Average temperature and precipitation in 2022 and the 30-year average across Kentucky.

Overall Observations

Growing Conditions

Average temperature across the entire state from April to October was relatively similar to the 30-year average. October was about 1°F cooler than the 30-year average and May through September was 1°F to 3°F warmer (Figure 2). The total precipitation, by month, was about 0.4 inches less than the 30-year average. In July, there were 2.4 inches more than the 30-year average but was below average in April, June, and August through October (Figure 2).

For District 1, average temperature was similar to the 30-year average for most of the growing season (Figure 3). July was 3°F warmer and October was 2°F cooler (Figure 3). Precipitation in District 1 was less than the 30-year average throughout the growing season by 1.72 inches or less except in September where it was -3.14 inches and April and August where it was greater by 1.82 inches and 0.10 inches, respectively (Figure 3).

For District 2, average temperature was less than the 30-year average in April as well as August through October and above average in May. Precipitation in District 2 was less than the 30-year average for all months except April, July and August. July had 4.87 more inches of rain than the 30-year average.

For District 3, average temperature was consistent with the 30-year average in April and October and was greater than average for the rest of the growing season. Precipitation was less than the 30-year average for all months except April, May and July. The differences were substantial for all months.

For District 4, average temperature was greater than the 30-year average from May through September. October was 1°F cooler than the 30-year average, April was consistent (Figure 3) with the 30-year average temperature. Precipitation was less than the 30-year average throughout the growing season, with the months of May, July and August being above. July was substantially above rainfall averages at 3.02 inches.

Yield Contest Entries

In 2022, a total of 45 entries were submitted from 12 Kentucky counties (Table 1, Figure 4). Thirty-eight entries were full season soybean, of which three entries were irrigated (Table 2). There were seven double crop entries, three of which were irrigated and four were non-irrigated (Table 3).

The 2022 yield contest produced a new contest record. The State Champion entry broke the record, set last year, for a final yield of 112.18 bushels per acre. The average yield of all full season entries (Table 1) was 85.9 bushels per acre. Three entries yielded over 100 bushels per acre (Table 1).

For the double crop entries, the average yield was recorded at 68.41 bushels per acre, with an average seeding rate of about 153,000 seeds per acre, six of the entries were planted in mid-June and one in mid-May (Table 3). The greatest double crop soybean average occurred in 2017 with an average of 70.77 bushels per acre followed by 2021 averaging 70.07 bushels per acre. Then, 2016 and 2015 with 68.16 and 67.07 bushels per acre, respectively.

Of the remaining entries, four district winners were awarded, regardless of production system (Figure 1). All the district winners were full season soybean; one was planted in early March, two in late April, and one was planted in early May. The average yield was 83.89 bushels per acre with an average seeding rate of about 140,000 seeds per acre (Table 6).

Quality Entries

In 2022, this was the second year that all yield contest entries were required to submit samples for quality. Thirty-six entries were from full season soybean and seven entries were double crop soybean (Table 7).

All winning entries of the quality contest were full season soybean, three were planted late April and one entry mid-May. The winning oil entry had a concentration of 21.46% while the second-place winner had 21.25% oil concentration. The previous record for oil concentration was documented in 2020 with 26.71%.

The winning entry for percent protein concentration was planted in late-April at a seeding rate of 160,000 seeds per acre. It had 35.46% protein concentration (Table 8). The greatest protein concentration documented was 41.73% in 2016.

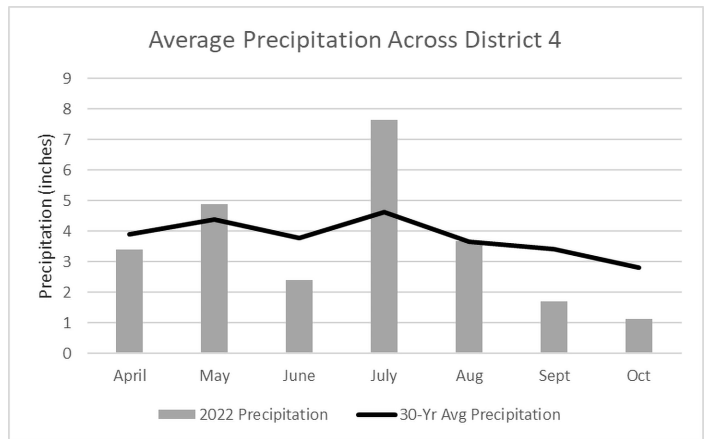
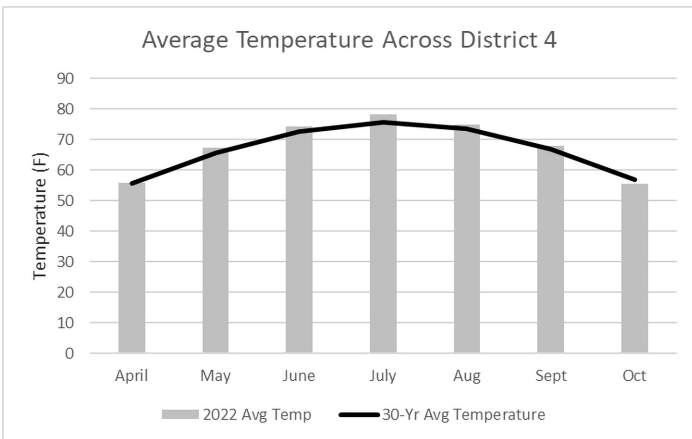
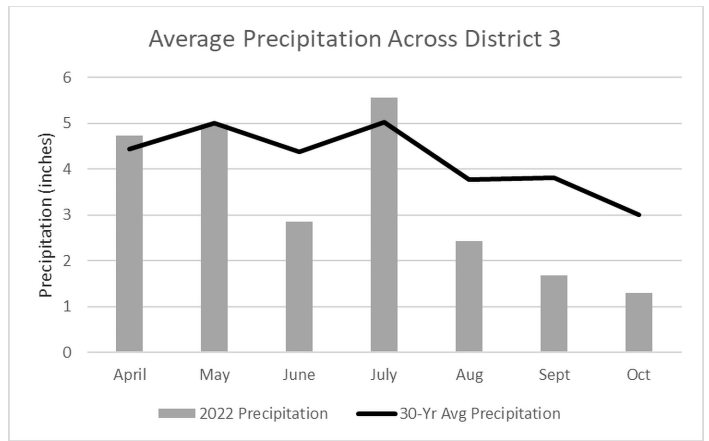
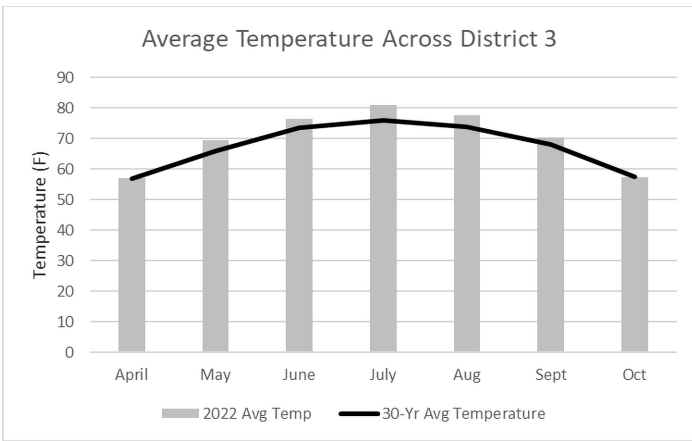
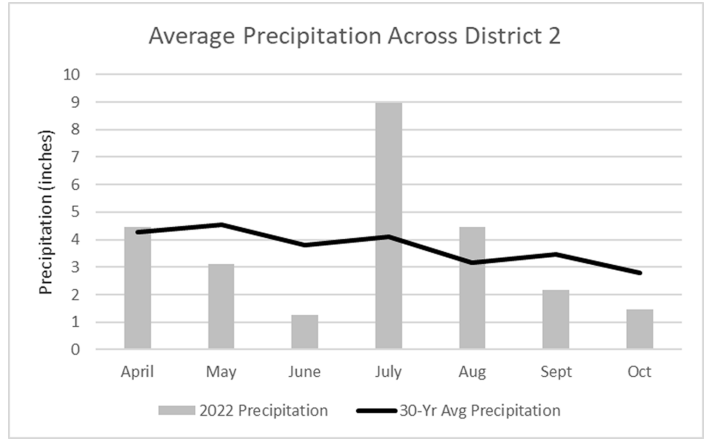
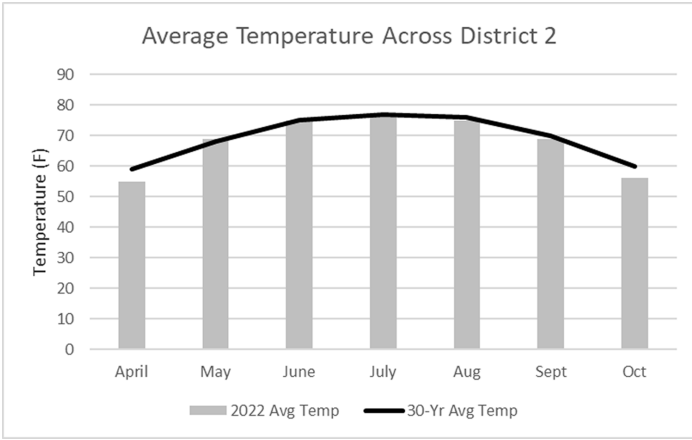
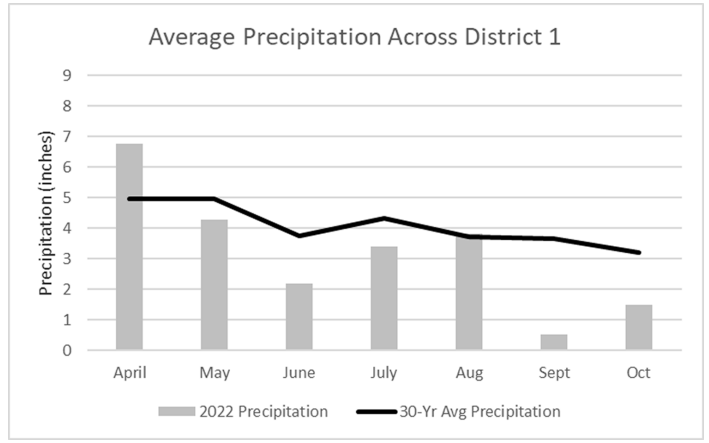
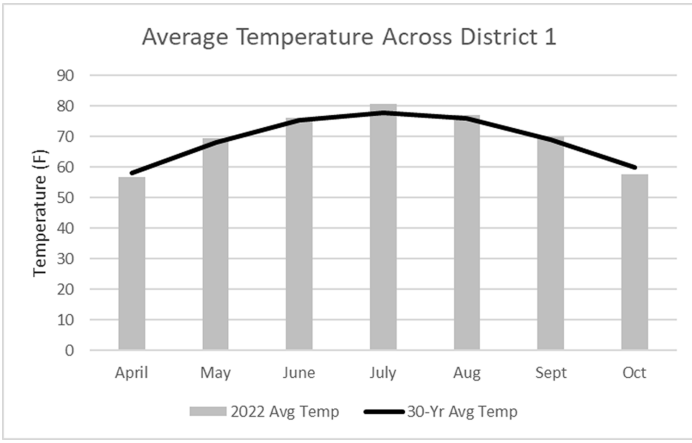


Figure 3. Average temperature and precipitation in 2022 and the 30-year average by district across Kentucky.

Boone	1	Marion	1
Daviess	25	Muhlenberg	2
Graves	2	Union	1
Hardin	2	Warren	1
Henderson	5	Wayne	2
Hickman	1	Webster	2

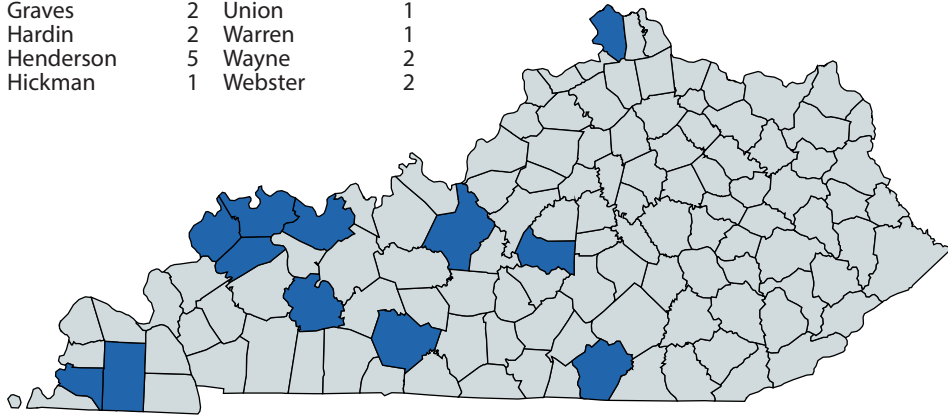


Figure 4. Number of soybean yield contest entries submitted in the 2022 Soybean Yield Production contest. Winning irrigated and non-irrigated entries were both submitted from Daviess County for the second year in a row.

Acknowledgements

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 2022, the Agribusinesses that supported the contests were AgriGold, Beck's, CGB, Channel Seed, DeKalb Asgrow, FMC, Owensboro Grain and Pioneer.

Weather data were obtained from the University of Kentucky Ag Weather Center (http://weather.uky.edu/ky/data.php#KY_Climate_Data). Weather stations included for District 1 are Mayfield, Paducah, Princeton; District 2 is Henderson; District 3 are Bowling Green and Glasgow; and District 4 are Bardstown, Berea, Buckhorn Lake, Campbellsville, Covington, Cumberland Gap, Dixon Dam, Grayson, Hardinsburg, Jackson, Lexington, London, Louisville, Nolin Lake, Quicksand, Somerset, Spindletop, Williamstown.

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Table 1. The category, grower/farm, whether the entry was irrigated or not, the county, cultivar information, and yield for each entry submitted to the 2022 Soybean Yield Contest.

Entry	Div.	Grower/Farm	County	Company	Brand/ Variety	Irrigation	Yield (bu/A)	District
1	FS	Dennis McKay Farms	Daviess	AgriGold	3.96E+6	Yes	112.18	2
2	FS	MW Thomas Farms	Hardin	AgriGold	4094XF	No	100.73	4
3	FS	O'Bryan Grain Farms	Daviess	Pioneer	P32T26E	No	100.15	2
4	FS	O'Bryan Grain Farms	Daviess	Pioneer	P32T26E	Yes	96.07	2
5	FS	McKay Farms	Daviess	AgriGold	3957E	Yes	95.29	2
6	FS	Ken-Maur Farms	Daviess	AgriGold	3520XF	No	95.11	2
7	FS	Greenwell Acres	Union	3322RXF	3322RXF	No	93.62	2
8	FS	Flatlick Grain Farms	Daviess	AgriGold	G3724XF	No	93.09	2
9	FS	Meredith Farms	Henderson	AgriGold	AG3649E3	No	92.48	2
10	FS	Cecil Farms	Daviess	NK	NKS31J9XF	No	92.11	2
11	FS	Ken-Maur Farms	Daviess	AgriGold	3520XF	No	91.67	2
12	FS	Peterson Farms	Marion	Stine	33N20	No	91.44	4
13	FS	Meredith Farms	Henderson	AgriGold	AG3649E3	No	90.94	2
14	FS	Cole Hamilton Farms	Daviess	NK	NK S35-E3	No	90.11	2
15	FS	Goetz Brothers Farm	Daviess	Asgrow	AG35XF1	No	89.48	2
16	FS	Gene Glenn & Sons Farm	Daviess	Pioneer	P42A84E	No	89.23	2
17	FS	Schwenke Brothers Farm	Boone	Pioneer	37T33E	No	88.09	4
18	FS	Goetz Brothers Farm	Daviess	AgriGold	G3724XF	No	88.02	2
19	FS	Flatlick Grain Farms LLC	Daviess	AgriGold	G4094XF	No	87.74	2
20	FS	Goetz Brothers Farm	Daviess	Asgrow	AG38XF1	No	87.64	2
21	FS	Meredith Farms	Henderson	AgriGold	3957E	No	87.16	2
22	FS	PPJ Thompson Farms	Daviess	Pioneer	37T33E	No	87.08	2
23	FS	Darrell Hagan	Daviess	Asgrow	35XF1	No	86.57	2
24	FS	Meredith Farms	Henderson	Pioneer	34T21E	No	86.41	2
25	FS	Darrell Hagan Farms	Daviess	AgriGold	G4094XF	No	85.2	2
26	FS	Goetz Brothers Farm	Daviess	AgriGold	3490XF	No	85.15	2
27	FS	PPJ Thompson Farms	Daviess	Pioneer	32T26E	No	83.35	2
28	FS	Western Kentucky Univ	Warren	Xitavo		No	83.22	3
29	FS	Jason Hagan	Daviess	Croplan	3650	No	81.47	2
30	FS	Darrell Hagan Farms	Daviess	Asgrow	AG35XF1	No	81.30	2
31	FS	Mitchell Farms	Webster	Asgrow	35XF1	No	79.78	2
32	FS	PPJ Thompson Farms	Daviess	Nutech	35N03E	No	78.73	2
33	FS	Beanland Farms	Daviess	NK	S39-E3	No	77.93	2
34	DC	Goetz Brothers Farm	Daviess	Asgrow	AG40XF1	No	73.72	2
35	DC	MW Thomas Farms	Hardin	Partners Brand	4022	No	73.37	4
36	DC	Ken-Maur Farms	Daviess	AgriGold	4615XF	Yes	71.65	2
37	DC	Dixon Farms	Graves	Asgrow	46X0	Yes	71.63	1
38	FS	David Denney Farm	Wayne	Pioneer	45T88E	No	69.84	4
39	DC	Dixon Farms	Graves	Asgrow	48X9	Yes	69.74	1
40	FS	David Denney Farm	Wayne	Pioneer	45T88E	No	68.20	4
41	FS	Andrew Bullock Farms	Muhlenberg	Asgrow	35XF1	No	67.29	1
42	DC	Dixon Farms	Hickman	Asgrow	48X9	No	67.18	1
43	FS	Kevin Burnett Farm	Webster	Asgrow	35XF1	No	63.11	2
44	DC	PPJ Thompson Farms	Daviess	Pioneer	P42T31E	No	51.58	2
45	FS	Andrew Bullock Farms	Muhlenberg	Asgrow	38XF1	No	47.33	1

Overall Contest Average 83.18
Full-Season Average 85.90
Double-Crop Average 68.41

Table 2. A summary of all production practices for the 38 full-season yield contest entries.

		Division I-Irrigated		Division I-Non-Irrigated				Participants
		Bushels/A						
		100	90	100	90	80	70	
		Entries for each Practice						
Production Practices		1	2	2	9	16	3	5
Average Yield (bu/A)		112.18	95.68	100.44	92.29	86.07	78.81	63.15
Seed Company	AgriGold	1	1	1	5	4		
	Asgrow					4	1	3
	Croplan					1		
	Channel				1			
	NK				2		1	
	NuTech						1	
	Pioneer		1	1		6		2
	Stine				1			
	Xitavo					1		
Herbicide Tolerance Technology	Enlist E3	1	2	1	3	6	2	2
	XtendFlex			1	5	8	1	3
Seed Treatment	Acceleron				1			2
	AgriShield		1		2			
	Alert 2020						1	
	Apron			1				
	CruiserMaxx				1			
	Equity					4		
	Factory	1			2			
	Gaucha							2
	Ilevo					1		
	Lumigen						1	2
	Obvius Plus					1		
	Pioneer					2		
	Poncho					1		
	PPST					2		
	Rancona				1			
	Saltro		1	1	3	6		
	Seed Shield Max						1	1
Seed Inoculant	Dyna-Start 3P			1	1			
	First Up LR						1	1
	Seed Guard Bio				1			
	Graph-Ex				1	2		
	Factory	1			2			
	Sinch ST		1					
	Detonate STB				1			

Table 2. A summary of all production practices for the 38 full-season yield contest entries (continued).

		Division I-Irrigated		Division I-Non-Irrigated				Participants
		Bushels/A						
		100	90	100	90	80	70	
		Entries for each Practice						
Production Practices		1	2	2	9	16	3	5
In-Furrow Treatment	Fertilizer	1						
	Immense Yield		1					
	iNvigorate		1					
	SoyWORX							
	TerraMax IF					2		
	Torque Complete		1					
	Zinc		1					
Foliar Insecticide	Beseige				1			
	Deadline				1			
	Endigo		1	1	1	1		
	Endigo ZC				2	2		
	Hero	1	2	2	2	5	1	2
	Lambda T-2				2			
	Lamcap II				1			
	Renestra					1		
	Sultrus					1		
	Tombstone					2	1	
	Tundra					4		
	Foliar Fungicide	Delaro					2	
Lucento					2	2		
Miravis Top		1			4	6	1	
Trivapro							1	2
Priaxor					2			
Quadris Top SBX			1	2			1	
Quilt						2	1	
Revytek				1	1	4		1
Tilt					2			
Tebustar						1		
Veltyma						1		
Herbicide	Pre-Emergence Only		1	1		3	1	
	Post-Emergence Only	1					1	2
	Pre+Post Emergence		1	1	9	13	1	3
Tillage	No-Till			1	1	3	1	1
	Tillage	1	2	1	7	11	2	4

Table 2. A summary of all production practices for the 38 full-season yield contest entries (continued).

		Division I-Irrigated		Division I-Non-Irrigated				Participants
		Bushels/A						
		100	90	100	90	80	70	
		Entries for each Practice						
Production Practices		1	2	2	9	16	3	5
Methods	Spring Chisel x1		1		4	2	1	
	Spring Disc x1		1		1	2		1
	Spring Disc x2					1		1
	Spring Disc and Chisel			1				
	Spring Turbo-Chopper				1	4		
	Spring Turbo-Till							1
	Spring Vertical Till	1			2	1	1	1
	Fall Chisel Plow				2	3		
	Fall Disc				2	1		
	Fall Vertical Till					1	1	1
Seeds/A	<100,000					1		
	100,000 to 125,000	1	2	2	4	4		
	126,000 to 150,000				5	11	3	1
	151,000 to 175,000							4
Planting Date	Before April 20				1	1		1
	Apr 20-30	1	1	1	5	9	2	1
	May 1-10		1	1	3	3		1
	May 11-20					2	1	2
	June 1-10					1		
Harvest Date	Sept 15-30		1		9	9	2	3
	Oct 1-15	1	1	2		4	1	
	Oct 16-31					3		4
	Nov 1-15							2
Row Width	7.5 inch					2	1	3
	15 inch	1	2	2	9	12	2	3
	30 inch					2		
Nitrogen applied	1 to 40 lbs/A		1	1	1	1		
P ₂ O ₅ applied	None		1	1	7	14	2	5
	1 to 40 lbs/A			1				
	41 to 80 lbs/A	1	1		2	2		
Total K ₂ O (lbs/A)	None		1	1	5	9		4
	1 to 40 lbs/A					1		
	41 to 80 lbs/A	1	1		1			
	81-120 lbs/A			1	1	3		
	>120 lbs/A				1	3	2	1
Manure/Litter Applied	2 Ton Poultry Litter				2			1
	2.5 Ton Poultry Litter							2
	3 Ton Poultry Litter					2		
	Swine Manure		1	1				

Table 2. A summary of all production practices for the 28 full-season yield contest entries (continued).

		Division I-Irrigated		Division I-Non-Irrigated					
		Bushels/A						Participants	
		100	90	100	90	80	70		
		Entries for each Practice							
Production Practices		1	2	2	9	16	3	5	
Other Fertilizer Applied	3.5 gal 3-18-18					4			
	10# S			1					
	15 Gal Convoy Complete 2x0		1						
	400# 9-23-30				2	2			
	Anova					1			
	Bor-A-Fil 16 oz				1	1			
	Breach 2.6 oz				1				
	Immense Yield 4 oz		1		1				
	K Leaf 1 pt					4			
	K-Rev 1 gal		1					1	
	K-Rev Kornect		1						
	MES-10					1			
	Novus K 5qt				1	1			
	Nutrilink Zn							1	1
	Octane		1						
V-Agri						1			
Previous Crop	Corn	1	2	2	9	16	3	5	
Other Inputs	Brandt Smart Trio, ProAcqua Finish				1			1	

Table 3. A summary of all production practices for the seven double-crop yield contest entries.

Production Practices		Division II-Irrigated		Division II-Non-Irrigated	
		Bushels/A			
		70 Bushel Club	Participants	70 Bushel Club	Participants
		Entries for each Practice			
		2	1	2	2
Average Yield (bu/A)		71.64	69.74	73.55	59.38
Seed Company	AgriGold	1			
	Asgrow	1	1	1	1
	Partner's Brand			1	
	Pioneer				1
Herbicide Tolerance Technology	Enlist E3				1
	Roundup Ready 2 Xtend	1	1		1
	XtendFlex	1		1	
Seed Treatment	Acceleron	1	1		1
	Alert 2020			1	
	Factory	1			
	Pioneer				1
Seed Inoculant	Factory	1			
In-Furrow Treatment	Soy Works			1	
	Baythroid	1	1		1
	Hero			1	
	Lambda T-2	1			
	Tombstone				1
Foliar Fungicide	Miravis Top			1	
	Priaxor	1			
	Stratego Yld		1		1
	Tilt	1			
	Revytek			1	
	Quilt				1
Herbicide	Pre-Emergence Only				1
	Pre+Post Emergence	2	1	2	1
Tillage	No-Till	2	1	1	2
Seeds/A	100,000 to 125,000			1	
	126,000 to 150,000				1
	151,000 to 175,000	2	1	1	1
Planting Date	May 11-20			1	
	June 11-20	2	1		1
	June 21-30			1	1
Harvest Date	Oct 1-15			1	
	Oct 16-31	2	1	3	1
	Nov 1-15				1
Row Width	7.5 inch				1
	15 inch	1		2	
	20 inch	1	1		1
P ₂ O ₅ applied	None	2	1	2	2
Total K ₂ O (lbs/A)	None	2	1	2	1
	>120 lbs/A				1
Manure/Litter Applied	1 Ton Poultry Litter				1
Previous Crop	Wheat	2	1	1	2
	Timothy Hay			1	

Table 4. All agronomic practices utilized to produce the state yield contest winning entries for irrigated and non-irrigated full season soybean in Kentucky in 2022.

Production Practices	Full Season-Irrigated		Full Season-Non-Irrigated	
	First Place	Second Place	First Place	Second Place
Grower/Farm	Dennis McKay Farms	O'Bryan Grain Farms	MW Thomas Farms	O'Bryan Grain Farms
County	Daviess	Daviess	Hardin	Daviess
Company	Agrigold	Pioneer	AgriGold	Pioneer
Brand	3957E3	P32T26E	4094XF	P32T26E
Yield (bu/A)	112.18	96.07	100.73	100.15
Division	FS	FS	FS	FS
Tillage	Tilled	Tilled	No-Till	Tilled
Soil Preparation	Vertical Till Spring	Spring Discx1, Spring chisel x1	0	Spring Disc and chisel
Planting Date	4/23/2022	5/10/2022	4/28/2022	5/10/2022
Row Width (in.)	15	15	15	15
Seeds/A	120,000	115,000	125,000	115,000
Irrigated	yes	yes	no	no
Harvest Date	10/2/2022	10/10/2022	10/7/2022	10/10/2022
Previous Crop	Corn	Corn	Corn	Corn
Total N (lbs/A)			12	
Total P ₂ O ₅ (lbs/A)	58		40	
Total K ₂ O (lbs/A)	75		90	
Total Manure (lbs/A)		Swine Draghose Fluid Fall 21		Swine Draghose Fluid Fall 21
Total Other (lbs/A)			10# S	
Seed Treatment	Factory		Saltro, Apron	
Seed Inoculant	Factory		DynaStart	
In-Furrow Treatment	Fertilizer			
Foliar Insecticide	Hero	Hero	Hero, Endigo	Hero
Foliar Fungicide	Miravis Top	Quadris Top SBX	Quadris Top SBX, Revytek	Quadris Top SBX
Herbicide -Pre-Emergence		Prefix, Enlist, Glyphosate	Verdict, MSO, Roundup, 2-4,D	Prefix, Enlist, Glyphosate
Herbicide -Post-Emergence	Zidua, Roundup, Enlist		Roundup, Liberty	
Herbicide Tolerance Technology	Enlist E3	Enlist E3	XtendFlex	Enlist E3

Table 5. All agronomic practices utilized to produce the state yield contest winning entries for irrigated and non-irrigated double crop soybean in Kentucky in 2022.

Production Practices	Double Crop-Irrigated		Double Crop-Non-Irrigated	
	First Place	Second Place	First Place	Second Place
Grower/Farm	Ken-Maur Farms	Dixon Farms	Goetz Brothers Farm	MW Thomas Farms
County	Daviess	Graves	Daviess	Hardin
Company	AgriGold	Asgrow	Asgrow	Partners Brand
Brand	4615XF	46X0	AG40XF1	4022
Yield (bu/A)	71.65	71.63	73.72	73.37
Division	DC	DC	DC	DC
Tillage	No-Till	No-Till	No-Till	
Planting Date	6/20/2022	6/18/2022	6/21/2022	5/18/2022
Row Width (in.)	15	20	15	15
Seeds/A	160,000	165,000	160,000	120,000
Irrigated	yes	yes	no	no
Harvest Date	10/29/2022	10/19/2022	10/18/2022	10/5/2022
Previous Crop	Wheat	Wheat	Wheat	Timothy Hay
Seed Treatment	Factory	Acceleron		Alert 2020
Seed Inoculant	Factory			Not Stated
In-Furrow Treatment				Soy Works
Foliar Insecticide	Lambda T-2	Baythroid		Hero
Foliar Fungicide	Priaxor, Tilt	Veltyrna	Miravis Top	Revytek
Herbicide -Pre-Emergence	Anthem Maxx, Roundup, Detonate	Roundup, Valor	Roundup (24 oz)	Verdict, Roundup
Herbicide -Post-Emergence	Zidua, Ringside, Roundup	Roundup	Prefix (32 oz)	Enlist One, Roundup
Herbicide Tolerance Technology	ExtendFlex	Roundup Ready 2 Xtend	XtendFlex	0

Table 6. All agronomic practices utilized to produce the district yield contest winning entries in Kentucky in 2022.

Production Practices	District			
	1	2	3	4
Grower/Farm	Andrew Bullock Farms	Greenwell Acres	Western Kentucky Univ	Peterson Farms
County	Muhlenberg	Union	Warren	Marion
Company	Asgrow	Channel	Xitavo	Stine
Brand	35XF1	3322RXF	4522E	33N20
Yield (bu/A)	67.29	93.62	83.22	91.44
Division	FS	FS	FS	FS
	Tilled	Tilled	No-Till	Tilled
Tillage	Spring Disc x2	Spring Disc		Spring Chisel X1, Spring Turbo Max x1, Spring Kelley diamond harrow x1
Planting Date	3/19/2022	4/29/2022	5/9/2022	4/30/2022
Row Width (in.)	15	15	15	15
Seeds/A	160,000	130,000	140,000	130,000
Irrigated	no	no	no	no
Harvest Date	9/29/2022	9/15/2022	10/21/2022	9/22/2022
Previous Crop	Corn	Corn	Corn	Corn
Total N (lbs/A)				40
Total P ₂ O ₅ (lbs/A)		69	50	62
Total K ₂ O (lbs/A)		90	100	88
Total Manure (lbs/A)	2 Ton			2 Tons Chicken Litter
Seed Treatment	Acceleron	Acceleron F1	Obvius Plus, Poncho, llevo	Rancona
Seed Inoculant		Seed Guard Bio		Detonate STB
Foliar Insecticide	Hero	Hero	Renestra	Lamcap II
Foliar Fungicide	Trivapro	Revytek	Veltyma, Revytek	Miravis Top
Herbicide -Pre-Emergence	Roundup, Boundry	Roundup, Verdict, Dicamba	Verdict, Zidua SC, Glyphosate	Authority Edge, Roundup PowerMax
Herbicide -Post-Emergence	Roundup, Liberty	Enlist One, Zidua, Engenia	Liberty, Zidua SC, Glyphosate	Intensity, classic, Zidua SC, Basagran, Flexstar
Herbicide Tolerance Technology	XtendFlex	XtendFlex	Enlist E3	
Other Inputs		Brandt Smart Trio, ProAcqua Finish		

Table 7. The category, grower/farm, county, cultivar information, and percent oil and protein concentration for each entry submitted to the 2022 Soybean Quality Contest.

Entry	Category	Grower/Farm	County	Company	Brand/ Variety	Percent	
						Oil	Protein
1.	Full Season	Darrell Hagan	Daviess	Asgrow	35XF1	19.49	34.58
2.	Full Season	Cecil Farms	Daviess	NK	NKS31J9XF	19.33	34.21
3.	Full Season	Flatlick Grain Farms	Daviess	AgriGold	G3724XF	18.18	34.12
4.	Full Season	MW Thomas Farms	Hardin	AgriGold	4094XF	20.70	33.28
5.	Full Season	Andrew Bullock Farms	Muhlenberg	Asgrow	38XF1	19.45	35.46
6.	Full Season	Andrew Bullock Farms	Muhlenberg	Asgrow	35XF1	20.05	34.29
7.	Full Season	Beanland Farms	Daviess	NK	S39-E3	18.97	35.13
8.	Full Season	Jason Hagan	Daviess	Croplan	3650	19.653	33.077
9.	Full Season	Flatlick Grain Farms LLC	Daviess	AgriGold	G4094XF	19.94	34.07
10.	Full Season	Darrell Hagan Farms	Daviess	AgriGold	G4094XF	20.57	34.05
11.	Full Season	Darrell Hagan Farms	Daviess	Asgrow	AG35XF1	19.26	34.17
12.	Full Season	Mitchell Farms	Webster	Asgrow	35XF1	20.15	33.10
13.	Full Season	Kevin Burnett Farm	Webster	Asgrow	35XF1	20.18	33.75
14.	Full Season	Greenwell Acres	Union	Channel	3322RXF	19.40	32.86
15.	Full Season	David Denney Farm	Wayne	Pioneer	45T88E	20.09	34.13
16.	Full Season	David Denney Farm	Wayne	Pioneer	45T88E	20.09	33.80
17.	Full Season	Goetz Brothers Farm	Daviess	AgriGold	G3724XF	18.17	34.37
18.	Full Season	Goetz Brothers Farm	Daviess	AgriGold	3490XF	18.49	33.52
19.	Full Season	Goetz Brothers Farm	Daviess	Asgrow	AG35XF1	19.81	33.40
20.	Full Season	Cole Hamilton Farms	Daviess	NK	NK S35-E3	19.91	32.00
21.	Full Season	Goetz Brothers Farm	Daviess	Asgrow	AG38XF1	19.53	32.16
22.	Full Season	Dennis McKay Farms	Daviess	AgriGold	3.96E+6	18.10	33.30
23.	Full Season	O'Bryan Grain Farms	Daviess	Pioneer	P32T26E	19.28	32.78
24.	Full Season	O'Bryan Grain Farms	Daviess	Pioneer	P32T26E	19.24	33.36
25.	Full Season	Ken-Maur Farms	Daviess	AgriGold	3520XF	18.69	33.85
26.	Full Season	Ken-Maur Farms	Daviess	AgriGold	3520XF	18.73	34.10
27.	Full Season	Gene Glenn & Sons Farm	Daviess	Pioneer	P42A84E	19.18	32.91
28.	Full Season	PPJ Thompson Farms	Daviess	Pioneer	32T26E	20.04	32.53
29.	Full Season	PPJ Thompson Farms	Daviess	Pioneer	37T33E	19.91	34.32
30.	Full Season	PPJ Thompson Farms	Daviess	Nutech	35N03E	21.25	32.81
31.	Full Season	McKay Farms	Daviess	AgriGold	3957E	20.80	31.76
32.	Full Season	Meredith Farms	Henderson	Pioneer	34T21E	20.18	32.66
33.	Full Season	Meredith Farms	Henderson	Pioneer	32T26E	20.29	32.63
34.	Full Season	Meredith Farms	Henderson	AgriGold	AG3649E3	21.46	32.88
35.	Full Season	Meredith Farms	Henderson	AgriGold	AG3649E3	20.51	32.61
36.	Full Season	Schwenke Brothers Farm	Boone	Pioneer	37T33E	19.83	33.37
37.	Double Crop	Goetz Brothers Farm	Daviess	Asgrow	AG40XF1	18.42	32.54
38.	Double Crop	Dixon Farms	Graves	Asgrow	46X0	19.17	33.81
39.	Double Crop	Dixon Farms	Hickman	Asgrow	48X9	18.75	34.52
40.	Double Crop	Ken-Maur Farms	Daviess	AgriGold	4615XF	19.41	34.76
41.	Double Crop	PPJ Thompson Farms	Daviess	Pioneer	P42T31E	18.57	32.76
42.	Double Crop	MW Thomas Farms	Hardin	Partners Brand	4022	17.64	34.03
43.	Double Crop	Dixon Farms	Graves	Asgrow	48X9	18.15	33.93

Full-Season Average 19.69 33.48
Double-Crop Average 18.59 33.76

Table 8. Agronomic practices utilized to produce the state Quality Contest winning entries in Kentucky in 2022.

Production Practices	Oil		Protein	
	1st Place	2nd Place	1st Place	2nd Place
Grower/Farm	Meredith Farms	PPJ Thompson Farms	Andrew Bullock Farms	Beanland Farms
County	Henderson	Daviess	Muhlenberg	Daviess
Company	AgriGold	Nutech	Asgrow	NK
Brand/Variety	AG3649E3	35N03E	38XF1	S39-E3
Oil (%)	21.46	21.25	19.45	18.97
Protein (%)	32.88	32.81	35.46	35.13
Yield (bu/A)	92.48	78.73	47.33	77.93
Division	FS	FS	FS	FS
Tillage	Fall Chisel plow Spring JD field cultivator		Spring Disc x1, Spring Turbo-Tillx1	Spring Chisel
Planting Date	4/30/2022	4/29/2022	4/29/2022	5/13/2022
Row Width (in.)	15	7.5	15	15
Seeds/A	120,000	140,000	160,000	140,000
Irrigated	no	no	no	no
Harvest Date	9/21/2022	9/22/2022	9/29/2022	10/7/2022
Previous Crop	Corn	White Corn	Corn	Corn
Total K ₂ O (lbs/A)		250		
Total Other (lbs/A)	400# 9-23-50		Lime 2 Ton/Fall	K-Rev 1 gal
Seed Treatment	AgriShield, Saltro	Lumigen	Acceleron	
Foliar Insecticide	Endigo ZC	Tombstone	Hero	Hero
Foliar Fungicide	Lucento	Quilt	Trivapro	Miravis Top
Herbicide -Pre-Emergence	Paralell	Roundup 24 oz, Anthem Max 2.5oz, 2,4-D 12oz, Firezone 10oz	Boundry	Cleanse, 2,4-D LV6, Metribuzin, 1 pt Paraquat
Herbicide -Post-Emergence	Buccaneer, Enlist, Torment, Fomesaphen		Roundup, Liberty	Roundup Enlist catalyst, Zidua Sc offense XL
Herbicide Tolerance Technology	Enlist E3	Enlist E3	XtendFlex	E-3



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