



UNIVERSITY OF  
DELAWARE®

# Delaware Soybean Variety Trials 2021

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## Acknowledgments

Thank you to all the companies who have supported and participated in the 2021 University of Delaware Soybean Variety Trials.

We are indebted and extend appreciation to the following cooperators who generously provided land and support for our off-site locations. They are Craig Murray of Murray Bros. Farm in Selbyville, Rob Emerson of Emerson Farms in Middletown and Allen Garey of Garey Farms.

I would like to personally thank Buddy Willey, Kyle Mitchell, Warren Willey, Teclé Weldekidan, Ward Harris and Brian Hearn of our Carvel Farm Staff for their assistance in planting, harvesting, and managing the trials. These trials would not have been possible without their contributions.

## Methodology

All trials were conducted in a randomized, complete block design with four total replications. The final plot length of all trials was 17 ft. More experimental details such as population, plot width, planting/harvest dates, and tillage or cultural practices can be found in the following table. Temperature and rainfall information for the growing season can be accessed at the nearest test locations from DEOS <http://www.deos.udel.edu/>

## C.V. and L.S.D.

The coefficient of variation (C.V.) is a measurement of the amount of uncontrollable variability due to differences in the soil, weather, fertility, etc. The acceptable CV level is dependent on the field of the research. Medicine and pharmaceutical research have stricter CV ranges than research in agricultural sciences due to more control over outside variables. The American Association for Clinical Chemistry in *Clinical Chemistry, Volume 35, Issue 4* defines for agricultural studies that CV<10 is very good, 10-20 is good, 20-30 is acceptable. Please note that the C.V. is expected to be higher at dryland locations.

The least significant difference (L.S.D.; computed at a 5% level of probability) is a tool to determine if two average values are significantly different. The difference between two varieties must exceed the L.S.D. value to be considered significantly different from one another.

## HOW TO BEST USE SOYBEAN VARIETY TRIAL INFORMATION

Information presented in this summary may be useful in selecting soybean varieties for production in Delaware. To maximize the usefulness of this information, follow these suggestions:

1. Select the test location that best represents your production location. Generally, varieties are adaptable across Delaware but certain soil or climatic conditions, cultural practices, or insect/disease problems may limit the choice.
2. Multiple-year average (means) across the greatest number of years are the best predictors of performance. Refer to previous test reports for information to evaluate soybean varieties which are of interest to you. Comparison between your selected variety and the grand mean for your closest test location will be helpful in identifying superior varieties for your area.
3. Check the grand mean for the long-term averages and compare with your own production experience. If your yields have been consistently below these grand mean levels, you should evaluate each part of your management system for potential areas of improvement.

2021 Delaware Soybean Variety Trial Entries

<u>Brand</u>	<u>Variety</u>	<u>Traits</u>	<u>Seed Treatment</u>	<u>Maturity</u>
Credenz/Xitavo	CZ 4742XF	XtendFlex	Poncho Votivo, llevo, Obvius Plus	4.7
Credenz/Xitavo	CZ 4202XF	XtendFlex	Poncho Votivo, llevo, Obvius Plus	4.2
Credenz/Xitavo	CZ 4912XF	XtendFlex	Poncho Votivo, llevo, Obvius Plus	4.9
Credenz/Xitavo	CZ 5282XF	XtendFlex	Poncho Votivo, llevo, Obvius Plus	5.2
Credenz/Xitavo	CZ 4892XF	XtendFlex	Poncho Votivo, llevo, Obvius Plus	4.8
Credenz/Xitavo	CZ 4562XF	XtendFlex	Poncho Votivo, llevo, Obvius Plus	4.5
Credenz/Xitavo	CZ 3930GTLL	GTLL	Poncho Votivo, llevo, Obvius Plus	3.9
Credenz/Xitavo	XO3861E	Enlist	Poncho Votivo, llevo, Obvius Plus	3.8
Credenz/Xitavo	XO4371E	Enlist	Poncho Votivo, llevo, Obvius Plus	4.3
Credenz/Xitavo	XO4681E	Enlist	Poncho Votivo, llevo, Obvius Plus	4.6
Credenz/Xitavo	CZ3750GTLL	GTLL	Poncho Votivo, llevo, Obvius Plus	3.7
Credenz/Xitavo	CZ4701GTLL	GTLL	Poncho Votivo, llevo, Obvius Plus	4.7
Credenz/Xitavo	CZ4241GTLL	GTLL	Poncho Votivo, llevo, Obvius Plus	4.2
Dyna-Gro Seed	S39EN19	E3 Enlist	Equity VIP, Saltro	3.9
Dyna-Gro Seed	S41EN72	E3 Enlist	Equity VIP, Saltro	4.1
Dyna-Gro Seed	S45ES10	E3 Enlist	Equity VIP, Saltro	4.5
Dyna-Gro Seed	S43EN61	E3 Enlist	Equity VIP, Saltro	4.3
Dyna-Gro Seed	S48XT90	RR2 Xtend	Equity VIP, Saltro	4.8
Dyna-Gro Seed	S41ES80	E3 Enlist, STS	Equity VIP, Saltro	4.1
Dyna-Gro Seed	S46ES91	E3 Enlist, STS	Equity VIP, Saltro	4.6
Dyna-Gro Seed	S48XF61S	XtendFlex, STS	Equity VIP, Saltro	4.8
Dyna-Gro Seed	S46XF31S	XtendFlex, STS	Equity VIP, Saltro	4.6
Dyna-Gro Seed	S48EN02	E3 Enlist	Equity VIP, Saltro	4.8
Dyna-Gro Seed	S46XS60	RR2 Xtend, STS	Equity VIP, Saltro	4.6
Dyna-Gro Seed	S39XF41	XtendFlex	Equity VIP, Saltro	3.9
HiSOY	HS 48E10	Enlist E3	CruiserMaxx, Vibrance	4.8
HiSOY	HS 39E10	Enlist E3	CruiserMaxx, Vibrance	3.9
HiSOY	HS 43E00	Enlist E3	CruiserMaxx, Vibrance	4.3
HiSOY	HS 45E00	Enlist E3	Accelaron	4.5
Innvictis Seed Solutions	A4690XF	XtendFlex		4.6

Innvictis Seed Solutions	B4609E	Enlist E3		4.6
Innvictis Seed Solutions	B4440E	Enlist E3		4.4
MorSoy	MS 5640XF	XtendFlex	Avicta Complete/Inoculant	5.6
MorSoy	MS 5491XF	XtendFlex	Avicta Complete	5.4
MorSoy	MS 3861XF	XtendFlex	Avicta Complete	3.8
MorSoy	MS 4850XF/STS	XtendFlex	Avicta Complete/Inoculant	4.8
MorSoy	MS 5461E	Enlist	Avicta Complete	5.4
MorSoy	MS 4640XF	XtendFlex	Avicta Complete/Inoculant	4.6
NK Brand	NK43-V8XF	XtendFlex	CruiserMaxx, Vibrance, Saltro	4.3
NK Brand	NK45-P9XF	XtendFlex	CruiserMaxx, Vibrance, Saltro	4.5
NK Brand	NK45-V9E3	E3	CruiserMaxx, Vibrance, Saltro	4.5
Seed Consultants	SC7381E	Enlist	LumiGen, llevo	3.8
Seed Consultants	SC7461E	Enlist	LumiGen, llevo	4.6
Seed Consultants	SC7481E	Enlist	LumiGen, llevo	4.8
Seed Consultants	SC7421E	Enlist	LumiGen, Lumisena, llevo	4.2
Seed Consultants	SC7390E	Enlist	LumiGen, llevo	3.9
Seed Consultants	SC7372E	Enlist	LumiGen, llevo	3.7
Southern Harvest	SH 5321 E3	E3, STS	ApronMaxx RFC, Germate Plus	5.3
Southern Harvest	SH 4820 E3	E3, STS	ApronMaxx RFC, Germate Plus	4.8
Southern Harvest	SH 5122 E3	E3	ApronMaxx RFC, Germate Plus	5.1
Southern Harvest	SH 4022 E3	E3	ApronMaxx RFC, Germate Plus	4
USG	USG 7461XFS	XtendFlex, STS	Ipconazole, Metalaxyl, Imidiclopid	4.6
USG	USG 7441XF	XtendFlex	Ipconazole, Metalaxyl, Imidiclopid	4.4
USG	USG 7382ETS	Enlist, STS	Ipconazole, Metalaxyl, Imidiclopid	3.8
USG	USG 7420ETS	Enlist, STS	Ipconazole, Metalaxyl, Imidiclopid	4.2
USG	USG 7429ET	Enlist	Ipconazole, Metalaxyl, Imidiclopid	4.2
USG	USG 7431ET	Enlist	Ipconazole, Metalaxyl, Imidiclopid	4.3
USG	USG 7392XFS	XtendFlex, STS	Ipconazole, Metalaxyl, Imidiclopid	3.9
USG	USG 7451ET	Enlist	Ipconazole, Metalaxyl, Imidiclopid	4.5
USG	USG 7472ETS	Enlist, STS	Ipconazole, Metalaxyl, Imidiclopid	4.7

## Experimental Details

	<b>Carvel Rec - Georgetown</b>	<b>Emerson Farms - Middletown</b>
<b>Number of Entries</b>	60	60
<b>Target Population</b>	150,000 seeds/acre	150,000 seeds/acre
<b>Plot Length</b>	17 ft	17 ft
<b>Plot Width</b>	7.5 ft (3 rows harvested)	7.5 ft (3 rows harvested)
<b>Spacing</b>	4 rows, 30 inch	4 rows, 30 inch
<b>Planter</b>	SRES Monosem Air Planter	SRES Monosem Air Planter
<b>Harvester</b>	Almaco R1 combine	Almaco R1 combine
<b>Grain Analysis</b>	Harvest Master H2 Classic	Harvest Master H2 Classic
<b>Number of Replications</b>	4	4
<b>Planting Date</b>	5/19/2021	5/20/2021
<b>Harvest Date</b>	11/5/2021	11/8/2021
<b>Soil Type</b>	Pepperbox/Rosedale Loamy sand	Reybold- Queponco complex- Silt Loam
<b>Previous Crop</b>	corn	corn
<b>Tillage Practices</b>	turbo tilled	no-till
<b>Fertilization</b>	250lb/acre of 0-0-62 before planting	none
<b>Herbicide</b>	(Canopy 5oz/acre, Dual 1.5pt/acre) on 5/19 (Reflex 1.5pt/acre, Anthem Maxx 3.25oz/acre, Clethodim 1pt/acre) on 7/6	(Round-up 1qt/acre, Liberty 1qt/acre, Canopy 5oz/acre, Dual 1.5 pt/acre) on 5/20 (Anthem Maxx 3.25oz/acre, Clethodim 1pt/acre) on 6/30
<b>Insecticide/Fungicide</b>	Warrior 2oz/acre 7/6	Warrior 2oz/acre on 6/30
<b>Irrigation</b>	Linear Irrigation	Dryland (none)

	<b>Murray Brothers Farm - Selbyville</b>	<b>Gary Farms - Kent</b>
<b>Number of Entries</b>	60	60
<b>Target Population</b>	150,000 seeds/acre	150,000 seeds/acre
<b>Plot Length</b>	17 ft	17 ft
<b>Plot Width</b>	7.5 ft (3 rows harvested)	7.5 ft (3 rows harvested)
<b>Spacing</b>	4 rows, 30 inch	4 rows, 30 inch
<b>Planter</b>	SRES Monosem Air Planter	SRES Monosem Air Planter
<b>Harvester</b>	Almaco R1 combine	Almaco R1 combine
<b>Grain Analysis</b>	Harvest Master H2 Classic	Harvest Master H2 Classic
<b>Number of Replications</b>	4	4
<b>Planting Date</b>	6/7/2021	7/13/2021
<b>Harvest Date</b>	11/9/2021	11/10/2021
<b>Soil Type</b>	Mullica-Berryland Complex	Glassboro Sandy Loam
<b>Previous Crop</b>	corn	wheat
<b>Tillage Practices</b>	turbo tilled	no-till
<b>Fertilization</b>	none	none
<b>Herbicide</b>	(Round-up 1qt/acre, Liberty 1qt/acre, Canopy 5oz/acre, Dual 1.5 pt/acre) on 6/7 (Clethodim 1pt/acre) on 7/23	(Round-up 1qt/acre, Liberty 1qt/acre, Canopy 5oz/acre, Dual 1.5 pt/acre) on 7/13 ( Reflex 1.5pt/acre, Anthem Maxx 3.25oz/acre, Clethodim 1pt/acre) on 8/17
<b>Insecticide/Fungicide</b>	Warrior 2oz/acre on 7/23	Warrior 2oz/acre
<b>Irrigation</b>	Dryland (none)	Center Pivot



## 2021 Georgetown Full Season Soybean Variety Trial

<u>Brand</u>	<u>Rank</u>	<u>Variety</u>	<u>Yield (Bu)</u>	<u>Moisture (Harvest)</u>	<u>Test Weight</u>	<u>Gross Income/acre*</u>
Dyna-Gro Seed	1	<b>S41EN72</b>	75.1	15.0	55.6	\$901.20
NK Brand	2	<b>NK43-V8XF</b>	70.8	15.1	56.2	\$849.60
Dyna-Gro Seed	3	<b>S46XF31S</b>	69.4	15.1	55.6	\$832.80
Seed Consultants	4	<b>SC7421E</b>	68.7	15.0	55.7	\$824.40
USG	5	<b>USG 7461XFS</b>	68.3	15.0	55.6	\$819.60
Dyna-Gro Seed	6	<b>S48XT90</b>	67.8	15.2	56.1	\$813.60
HiSOY	7	<b>HS 45E00</b>	67.8	15.7	56.1	\$813.60
Dyna-Gro Seed	8	<b>S46XS60</b>	67.1	14.7	55.8	\$805.20
Dyna-Gro Seed	9	<b>S48EN02</b>	66.9	14.9	56.3	\$802.80
Innvictis Seed Solutions	10	<b>B4609E</b>	66.9	15.4	56.2	\$802.80
Southern Harvest	11	<b>SH 4022 E3</b>	66.9	15.2	55.5	\$802.80
Seed Consultants	12	<b>SC7461E</b>	66.7	14.9	55.6	\$800.40
USG	13	<b>USG 7472ETS</b>	66.7	15.2	56.1	\$800.40
Dyna-Gro Seed	14	<b>S45ES10</b>	66.1	14.8	56.4	\$793.20
Dyna-Gro Seed	15	<b>S48XF61S</b>	65.7	15.2	54.6	\$788.40
Innvictis Seed Solutions	16	<b>B4440E</b>	65.1	15.4	55.9	\$781.20
Dyna-Gro Seed	17	<b>S41ES80</b>	64.9	15.7	55.5	\$778.80
MorSoy	18	<b>MS 5640XF</b>	64.9	14.9	56.5	\$778.80
MorSoy	19	<b>MS 5461E</b>	64.1	15.2	56.0	\$769.20
USG	20	<b>USG 7441XF</b>	63.9	16.1	55.7	\$766.80
Dyna-Gro Seed	21	<b>S39XF41</b>	63.8	15.4	55.5	\$765.60
MorSoy	22	<b>MS 4640XF</b>	63.8	15.2	55.3	\$765.60
Credenz/Xitavo	23	<b>CZ4701GTLL</b>	63.7	15.2	56.5	\$764.40
Innvictis Seed Solutions	24	<b>A4690XF</b>	63.1	14.5	55.9	\$757.20
HiSOY	25	<b>HS 48E10</b>	62.0	15.7	56.0	\$744.00
Southern Harvest	26	<b>SH 5122 E3</b>	62.0	14.8	57.4	\$744.00
Credenz/Xitavo	27	<b>CZ 3930GTLL</b>	61.7	15.2	56.7	\$740.40
USG	28	<b>USG 7451ET</b>	60.8	14.8	55.5	\$729.60
Credenz/Xitavo	29	<b>CZ3750GTLL</b>	60.6	15.6	56.1	\$727.20
Seed Consultants	30	<b>SC7390E</b>	59.9	15.6	55.4	\$718.80
Southern Harvest	31	<b>SH 5321 E3</b>	59.8	15.6	56.2	\$717.60
Credenz/Xitavo	32	<b>XO3861E</b>	59.5	16.1	55.3	\$714.00
Dyna-Gro Seed	33	<b>S46ES91</b>	58.7	15.0	56.1	\$704.40
NK Brand	34	<b>NK45-P9XF</b>	58.0	15.6	56.1	\$696.00
USG	35	<b>USG 7429ET</b>	58.0	16.6	55.3	\$696.00

Southern Harvest	36	SH 4820 E3	57.9	14.7	56.1	\$694.80
USG	37	USG 7382ETS	57.9	15.9	54.8	\$694.80
NK Brand	38	NK45-V9E3	57.5	15.8	56.0	\$690.00
USG	39	USG 7431ET	57.4	15.0	56.4	\$688.80
Seed Consultants	40	SC7481E	57.3	14.4	55.7	\$687.60
Dyna-Gro Seed	41	S39EN19	56.6	15.1	54.8	\$679.20
Credenz/Xitavo	42	CZ 5282XF	56.0	14.5	57.2	\$672.00
Credenz/Xitavo	43	XO4371E	55.9	15.3	56.2	\$670.80
USG	44	USG 7420ETS	55.3	15.3	56.1	\$663.60
Credenz/Xitavo	45	CZ 4912XF	55.2	15.0	57.6	\$662.40
Credenz/Xitavo	46	XO4681E	55.0	15.7	56.0	\$660.00
USG	47	USG 7392XFS	54.3	15.3	55.8	\$651.60
Dyna-Gro Seed	48	S43EN61	53.9	14.8	56.5	\$646.80
Credenz/Xitavo	49	CZ4241GTLL	53.5	15.2	56.0	\$642.00
MorSoy	50	MS 4850XF/STS	53.3	14.3	55.2	\$639.60
HiSOY	51	HS 43E00	52.9	16.1	55.9	\$634.80
Seed Consultants	52	SC7381E	52.7	15.7	55.3	\$632.40
Seed Consultants	53	SC7372E	52.2	15.8	55.4	\$626.40
Credenz/Xitavo	54	CZ 4892XF	52.1	15.6	57.9	\$625.20
HiSOY	55	HS 39E10	51.6	15.5	55.6	\$619.20
MorSoy	56	MS 5491XF	49.5	15.3	58.2	\$594.00
Credenz/Xitavo	57	CZ 4562XF	47.3	14.2	57.1	\$567.60
Credenz/Xitavo	58	CZ 4742XF	46.6	14.7	57.5	\$559.20
MorSoy	59	MS 3861XF	45.0	15.4	55.4	\$540.00
Credenz/Xitavo	60	CZ 4202XF	37.9	14.8	58.1	\$454.80

Bolded varieties do not statistically differ from the top yielding variety

LSD P=.05

12.59

All yield data adjusted to 13% moisture

CV

15.11

Mean Yield

59.7

\*Gross Income/acre is based off of commodity pricing for dry grain and does not factor in moisture/drying doc.

Local Soybean Commodity Pricing - \$12 per bushel

## 2021 Middletown Full Season Soybean Variety Trial

<u>Brand</u>	<u>Rank</u>	<u>Variety</u>	<u>Yield (Bu)</u>	<u>Moisture (Harvest)</u>	<u>Test Weight</u>	<u>Gross Income/acre*</u>
Innvictis Seed Solutions	1	<b>B4609E</b>	49.2	13.5	57.8	\$590.40
Southern Harvest	2	<b>SH 4022 E3</b>	48.7	13.2	57.1	\$584.40
Seed Consultants	3	<b>SC7481E</b>	45.6	13.4	55.8	\$547.20
Credenz/Xitavo	4	<b>CZ3750GTLL</b>	45.5	13.7	55.6	\$546.00
Innvictis Seed Solutions	5	<b>B4440E</b>	44.9	13.5	56.6	\$538.80
Credenz/Xitavo	6	<b>XO4681E</b>	44.6	13.7	57.5	\$535.20
USG	7	<b>USG 7472ETS</b>	43.7	13.7	57.1	\$524.40
USG	8	<b>USG 7429ET</b>	43.6	13.4	56.4	\$523.20
Seed Consultants	9	<b>SC7390E</b>	42.9	13.5	56.8	\$514.80
Dyna-Gro Seed	10	<b>S46ES91</b>	42.8	13.6	57.8	\$513.60
USG	11	<b>USG 7461XFS</b>	42.6	13.4	57.3	\$511.20
Southern Harvest	12	<b>SH 5321 E3</b>	41.7	13.6	57.9	\$500.40
MorSoy	13	<b>MS 4640XF</b>	41.6	13.3	57.6	\$499.20
USG	14	<b>USG 7451ET</b>	41.4	13.7	57.2	\$496.80
Dyna-Gro Seed	15	<b>S46XF31S</b>	41.2	13.0	57.5	\$494.40
Seed Consultants	16	<b>SC7461E</b>	41.1	13.9	56.8	\$493.20
USG	17	<b>USG 7431ET</b>	41.1	13.7	57.3	\$493.20
Credenz/Xitavo	18	<b>XO3861E</b>	41.0	12.9	54.9	\$492.00
Seed Consultants	19	<b>SC7372E</b>	40.9	14.1	55.0	\$490.80
HiSOY	20	<b>HS 39E10</b>	40.3	13.9	55.7	\$483.60
Dyna-Gro Seed	21	<b>S46XS60</b>	40.2	13.5	57.8	\$482.40
NK Brand	22	<b>NK45-V9E3</b>	40.2	13.4	56.6	\$482.40
Dyna-Gro Seed	23	S48XF61S	40.1	13.1	56.6	\$481.20
Southern Harvest	24	SH 4820 E3	39.8	13.5	57.6	\$477.60
Credenz/Xitavo	25	CZ4241GTLL	39.8	13.6	56.7	\$477.60
HiSOY	26	HS 48E10	39.3	13.6	58.1	\$471.60
Innvictis Seed Solutions	27	A4690XF	39.1	13.5	57.6	\$469.20
Southern Harvest	28	SH 5122 E3	39.1	13.6	58.4	\$469.20
Credenz/Xitavo	29	CZ4701GTLL	39.1	13.2	57.3	\$469.20
USG	30	USG 7420ETS	39.0	13.4	56.6	\$468.00
Dyna-Gro Seed	31	S41EN72	38.8	13.6	56.8	\$465.60
Dyna-Gro Seed	32	S41ES80	38.5	14.5	56.4	\$462.00
NK Brand	33	NK43-V8XF	38.4	13.5	56.6	\$460.80
MorSoy	34	MS 4850XF/STS	38.3	13.5	56.9	\$459.60
MorSoy	35	MS 5461E	38.3	13.6	58.4	\$459.60

Seed Consultants	36	SC7421E	38.1	13.2	56.8	\$457.20
USG	37	USG 7441XF	38.1	14.5	56.5	\$457.20
Dyna-Gro Seed	38	S45ES10	38.1	13.8	56.9	\$457.20
HiSOY	39	HS 43E00	37.7	14.0	56.6	\$452.40
HiSOY	40	HS 45E00	37.7	14.4	57.4	\$452.40
Dyna-Gro Seed	41	S39EN19	37.6	13.3	54.4	\$451.20
Dyna-Gro Seed	42	S48EN02	37.5	13.7	58.2	\$450.00
Credenz/Xitavo	43	CZ 4892XF	37.0	14.0	58.2	\$444.00
Dyna-Gro Seed	44	S48XT90	37.0	13.9	57.8	\$444.00
Dyna-Gro Seed	45	S39XF41	36.7	13.9	56.0	\$440.40
Credenz/Xitavo	46	XO4371E	36.7	14.1	56.8	\$440.40
USG	47	USG 7382ETS	36.2	13.2	55.3	\$434.40
Dyna-Gro Seed	48	S43EN61	35.9	13.7	57.4	\$430.80
Seed Consultants	49	SC7381E	35.5	13.1	55.5	\$426.00
Credenz/Xitavo	50	CZ 3930GTLL	35.2	13.8	57.0	\$422.40
USG	51	USG 7392XFS	35.0	13.9	56.0	\$420.00
NK Brand	52	NK45-P9XF	34.2	13.8	57.5	\$410.40
Credenz/Xitavo	53	CZ 5282XF	34.2	13.8	58.8	\$410.40
MorSoy	54	MS 5640XF	33.9	13.7	58.7	\$406.80
MorSoy	55	MS 5491XF	33.9	14.2	60.4	\$406.80
MorSoy	56	MS 3861XF	33.8	13.1	56.2	\$405.60
Credenz/Xitavo	57	CZ 4912XF	31.0	13.3	57.0	\$372.00
Credenz/Xitavo	58	CZ 4202XF	29.9	13.5	57.7	\$358.80
Credenz/Xitavo	59	CZ 4562XF	29.9	14.2	58.1	\$358.80
Credenz/Xitavo	60	CZ 4742XF	23.6	13.0	56.3	\$283.20

Bolded varieties do not statistically differ from the top yielding variety

All yield data adjusted to 13% moisture

LSD P=.05

9.05

CV

16.72

Mean Yield

38.8

Dryland Crop underwent a 3 week drought period of little to no rain during flowering stages that resulted in yield reductions

\*Gross Income/acre is based off of commodity pricing for dry grain and does not factor in moisture/drying doc.

Local Soybean Commodity Pricing - \$12 per bushel

## 2021 Kent Double-Crop Soybean Variety Trial

<u>Brand</u>	<u>Rank</u>	<u>Variety</u>	<u>Yield (Bu)</u>	<u>Moisture (Harvest)</u>	<u>Test Weight</u>	<u>Gross Income/acre*</u>
HiSOY	1	<b>HS 39E10</b>	51.2	10.9	56.2	\$614.40
MorSoy	2	<b>MS 5640XF</b>	51.2	13.6	57.1	\$614.40
Credenz/Xitavo	3	<b>XO4681E</b>	48.2	11.9	57.3	\$578.40
Credenz/Xitavo	4	<b>XO3861E</b>	47.4	10.6	56.4	\$568.80
Dyna-Gro Seed	5	<b>S48EN02</b>	46.6	12.4	58.2	\$559.20
Dyna-Gro Seed	6	<b>S45ES10</b>	45.5	12.1	57.8	\$546.00
NK Brand	7	<b>NK45-P9XF</b>	45.0	12.2	58.2	\$540.00
MorSoy	8	<b>MS 4850XF/STS</b>	45.0	12.3	57.8	\$540.00
USG	9	<b>USG 7451ET</b>	44.9	12.4	57.2	\$538.80
USG	10	<b>USG 7392XFS</b>	44.6	11.7	57.5	\$535.20
Dyna-Gro Seed	11	<b>S39XF41</b>	43.1	12.3	57.8	\$517.20
USG	12	<b>USG 7461XFS</b>	42.8	11.4	57.3	\$513.60
Southern Harvest	13	<b>SH 5321 E3</b>	42.6	13.3	57.8	\$511.20
Credenz/Xitavo	14	<b>CZ4241GTLL</b>	42.6	11.5	57.1	\$511.20
MorSoy	15	<b>MS 3861XF</b>	42.3	12.0	56.2	\$507.60
Dyna-Gro Seed	16	<b>S39EN19</b>	41.8	11.7	56.2	\$501.60
Dyna-Gro Seed	17	<b>S46ES91</b>	41.8	12.5	58.2	\$501.60
Dyna-Gro Seed	18	<b>S46XF31S</b>	41.3	11.4	57.5	\$495.60
Dyna-Gro Seed	19	<b>S41ES80</b>	41.1	12.5	57.6	\$493.20
MorSoy	20	MS 4640XF	40.3	12.1	57.7	\$483.60
NK Brand	21	NK43-V8XF	40.2	12.5	57.8	\$482.40
HiSOY	22	HS 48E10	39.7	11.1	57.1	\$476.40
Dyna-Gro Seed	23	S41EN72	39.3	11.9	57.5	\$471.60
Southern Harvest	24	SH 4820 E3	38.8	12.5	58.0	\$465.60
Dyna-Gro Seed	25	S46XS60	38.8	11.5	56.8	\$465.60
MorSoy	26	MS 5461E	38.7	19.3	53.9	\$464.40
Dyna-Gro Seed	27	S48XT90	38.6	12.7	58.3	\$463.20
Credenz/Xitavo	28	CZ 3930GTLL	38.2	12.6	58.4	\$458.40
Innvictis Seed Solutions	29	B4609E	38.1	12.6	58.0	\$457.20
HiSOY	30	HS 43E00	38.1	12.2	57.4	\$457.20
Southern Harvest	31	SH 5122 E3	38.0	11.8	58.5	\$456.00
Innvictis Seed Solutions	32	B4440E	38.0	12.5	57.6	\$456.00
Seed Consultants	33	SC7461E	37.3	12.3	57.3	\$447.60
Credenz/Xitavo	34	CZ 4912XF	37.1	12.9	59.7	\$445.20
Credenz/Xitavo	35	CZ 4892XF	37.1	12.0	58.2	\$445.20

NK Brand	36	NK45-V9E3	35.5	12.3	58.0	\$426.00
USG	37	USG 7420ETS	35.4	12.7	57.5	\$424.80
USG	38	USG 7472ETS	35.4	11.8	57.2	\$424.80
Credenz/Xitavo	39	CZ4701GTLL	35.4	11.6	57.8	\$424.80
Seed Consultants	40	SC7421E	35.0	12.2	57.8	\$420.00
Dyna-Gro Seed	41	S48XF61S	34.5	11.8	57.8	\$414.00
Dyna-Gro Seed	42	S43EN61	34.3	12.2	57.6	\$411.60
Innvictis Seed Solutions	43	A4690XF	33.9	11.6	58.0	\$406.80
USG	44	USG 7441XF	33.7	11.2	57.0	\$404.40
Seed Consultants	45	SC7390E	33.4	11.8	57.5	\$400.80
Credenz/Xitavo	46	CZ 4562XF	33.2	12.8	57.7	\$398.40
USG	47	USG 7429ET	33.1	12.6	57.3	\$397.20
MorSoy	48	MS 5491XF	32.9	14.1	60.1	\$394.80
Credenz/Xitavo	49	CZ 4742XF	32.7	13.1	59.5	\$392.40
Credenz/Xitavo	50	CZ3750GTLL	32.5	12.0	56.5	\$390.00
Credenz/Xitavo	51	XO4371E	32.2	11.7	57.5	\$386.40
Southern Harvest	52	SH 4022 E3	31.0	12.4	57.8	\$372.00
USG	53	USG 7382ETS	30.8	11.5	55.1	\$369.60
Credenz/Xitavo	54	CZ 5282XF	29.6	13.5	58.7	\$355.20
Credenz/Xitavo	55	CZ 4202XF	29.0	11.3	58.3	\$348.00
HiSOY	56	HS 45E00	28.1	13.2	58.1	\$337.20
Seed Consultants	57	SC7481E	28.0	11.8	57.0	\$336.00
Seed Consultants	58	SC7372E	27.4	12.8	57.7	\$328.80
USG	59	USG 7431ET	25.5	12.4	57.9	\$306.00
Seed Consultants	60	SC7381E	24.7	12.2	56.8	\$296.40

Bolded varieties do not statistically differ from the top yielding variety

LSD P=.05

10.25

All yield data adjusted to 13% moisture

CV

16.81

Mean Yield

37.7

\*Gross Income/acre is based off of commodity pricing for dry grain and does not factor in moisture/drying doc.

Local Soybean Commodity Pricing - \$12 per bushel

## 2021 Selbyville Full Season Soybean Variety Trial

<u>Brand</u>	<u>Rank</u>	<u>Variety</u>	<u>Yield (Bu)</u>	<u>Moisture (Harvest)</u>	<u>Test Weight</u>	<u>Gross Income/acre*</u>
HiSOY	1	<b>HS 39E10</b>	75.5	13.1	56.8	\$906.00
Seed Consultants	2	<b>SC7421E</b>	71.2	13.1	56.9	\$854.40
MorSoy	3	<b>MS 4640XF</b>	71.2	12.9	57.0	\$854.40
Dyna-Gro Seed	4	<b>S45E10</b>	70.8	13.3	57.1	\$849.60
USG	5	<b>USG 7420ETS</b>	70.1	14.0	57.1	\$841.20
Innvictis Seed Solutions	6	<b>B4609E</b>	69.9	13.1	57.4	\$838.80
USG	7	<b>USG 7461XFS</b>	69.0	13.5	56.9	\$828.00
HiSOY	8	<b>HS 45E00</b>	68.7	13.7	57.2	\$824.40
Dyna-Gro Seed	9	<b>S48XT90</b>	68.6	13.4	57.6	\$823.20
HiSOY	10	<b>HS 48E10</b>	67.7	13.1	57.2	\$812.40
Seed Consultants	11	<b>SC7390E</b>	67.4	13.3	56.9	\$808.80
Credenz/Xitavo	12	<b>XO4371E</b>	67.3	13.7	57.5	\$807.60
Credenz/Xitavo	13	<b>CZ4241GTLL</b>	67.3	13.5	56.7	\$807.60
USG	14	USG 7472ETS	66.3	13.6	57.1	\$795.60
NK Brand	15	NK45-P9XF	66.1	12.9	57.5	\$793.20
Dyna-Gro Seed	16	S41ES80	65.8	13.4	57.4	\$789.60
Dyna-Gro Seed	17	S41EN72	65.5	13.9	56.8	\$786.00
Dyna-Gro Seed	18	S43EN61	65.5	13.4	57.6	\$786.00
Southern Harvest	19	SH 4820 E3	65.3	13.4	56.8	\$783.60
Seed Consultants	20	SC7481E	65.1	13.4	56.9	\$781.20
Dyna-Gro Seed	21	S46XS60	65.1	12.6	57.1	\$781.20
Innvictis Seed Solutions	22	A4690XF	65.1	13.1	57.2	\$781.20
NK Brand	23	NK43-V8XF	64.2	13.4	57.9	\$770.40
USG	24	USG 7392XFS	64.2	13.2	56.9	\$770.40
Southern Harvest	25	SH 4022 E3	64.1	13.2	57.4	\$769.20
Dyna-Gro Seed	26	S46XF31S	63.9	13.0	57.2	\$766.80
USG	27	USG 7429ET	63.8	13.7	57.6	\$765.60
NK Brand	28	NK45-V9E3	63.6	13.8	57.5	\$763.20
MorSoy	29	MS 5640XF	63.6	12.9	58.2	\$763.20
USG	30	USG 7451ET	63.4	13.2	57.0	\$760.80
Credenz/Xitavo	31	CZ 3930GTLL	63.2	13.5	57.6	\$758.40
Dyna-Gro Seed	32	S46ES91	63.1	13.3	57.4	\$757.20
MorSoy	33	MS 5461E	63.0	12.8	57.2	\$756.00
USG	34	USG 7441XF	62.8	13.8	57.5	\$753.60
Seed Consultants	35	SC7461E	62.5	13.5	57.1	\$750.00

MorSoy	36	MS 4850XF/STS	62.3	13.0	57.4	\$747.60
HiSOY	37	HS 43E00	62.1	13.7	57.5	\$745.20
Innvictis Seed Solutions	38	B4440E	62.0	13.1	57.2	\$744.00
USG	39	USG 7431ET	61.5	13.2	57.5	\$738.00
Credenz/Xitavo	40	CZ4701GTLL	61.5	13.4	57.5	\$738.00
USG	41	USG 7382ETS	60.9	13.6	56.2	\$730.80
Dyna-Gro Seed	42	S48EN02	60.5	12.8	57.9	\$726.00
Seed Consultants	43	SC7381E	59.9	13.3	56.6	\$718.80
Credenz/Xitavo	44	XO4681E	59.9	13.6	57.1	\$718.80
Southern Harvest	45	SH 5122 E3	58.6	13.7	58.0	\$703.20
Credenz/Xitavo	46	CZ 4202XF	58.2	13.2	58.4	\$698.40
Credenz/Xitavo	47	CZ 5282XF	58.0	12.8	58.1	\$696.00
Credenz/Xitavo	48	CZ 4912XF	57.8	13.4	57.7	\$693.60
Seed Consultants	49	SC7372E	57.8	13.4	56.4	\$693.60
Dyna-Gro Seed	50	S48XF61S	57.5	12.8	57.0	\$690.00
Dyna-Gro Seed	51	S39EN19	57.3	13.2	56.5	\$687.60
Credenz/Xitavo	52	CZ 4892XF	57.2	13.8	58.6	\$686.40
Credenz/Xitavo	53	CZ 4562XF	57.1	13.3	57.8	\$685.20
Southern Harvest	54	SH 5321 E3	57.0	13.3	57.7	\$684.00
Credenz/Xitavo	55	CZ3750GTLL	57.0	13.8	57.4	\$684.00
Dyna-Gro Seed	56	S39XF41	56.3	13.5	57.2	\$675.60
Credenz/Xitavo	57	XO3861E	55.0	13.6	57.1	\$660.00
MorSoy	58	MS 3861XF	52.2	13.2	57.1	\$626.40
Credenz/Xitavo	59	CZ 4742XF	51.6	13.4	58.4	\$619.20
MorSoy	60	MS 5491XF	50.1	13.5	59.1	\$601.20

Bolded varieties do not statistically differ from the top yielding variety

All yield data adjusted to 13% moisture

LSD P=.05

9.03

CV

10.30

Mean Yield

62.8

\*Gross Income/acre is based off of commodity pricing for dry grain and does not factor in moisture/drying doc.

Local Soybean Commodity Pricing - \$12 per bushel



## Varietal Seed Emergence/Vigor Ratings

<u>Brand</u>	<u>Variety</u>	<u>Georgetown</u>	<u>Middletown</u>	<u>Kent</u>	<u>Selbyville</u>	<u>4 Trial Average</u>
Credenz/Xitavo	CZ 4742XF	2.3	3.3	3.3	3.5	<b>3.1</b>
Credenz/Xitavo	CZ 4202XF	2.0	3.0	3.0	3.3	<b>2.8</b>
Credenz/Xitavo	CZ 4912XF	3.0	3.0	3.0	3.3	<b>3.1</b>
Credenz/Xitavo	CZ 5282XF	2.3	3.0	2.8	3.0	<b>2.8</b>
Credenz/Xitavo	CZ 4892XF	2.8	2.8	3.0	3.3	<b>3.0</b>
Credenz/Xitavo	CZ 4562XF	2.3	3.3	3.0	3.3	<b>3.0</b>
Credenz/Xitavo	CZ 3930GTLL	2.8	3.8	3.5	3.5	<b>3.4</b>
Credenz/Xitavo	XO3861E	2.0	3.0	3.0	3.0	<b>2.8</b>
Credenz/Xitavo	XO4371E	2.0	3.0	2.8	3.0	<b>2.7</b>
Credenz/Xitavo	XO4681E	2.0	3.3	3.0	3.0	<b>2.8</b>
Credenz/Xitavo	CZ3750GTLL	2.5	3.0	3.0	3.0	<b>2.9</b>
Credenz/Xitavo	CZ4701GTLL	1.5	2.0	2.3	2.8	<b>2.2</b>
Credenz/Xitavo	CZ4241GTLL	1.3	2.3	2.5	2.8	<b>2.2</b>
Dyna-Gro Seed	S39EN19	2.3	3.0	3.0	3.3	<b>2.9</b>
Dyna-Gro Seed	S41EN72	3.5	2.8	3.0	3.5	<b>3.2</b>
Dyna-Gro Seed	S45ES10	2.8	3.3	3.0	3.3	<b>3.1</b>
Dyna-Gro Seed	S43EN61	2.5	2.5	2.5	2.8	<b>2.6</b>
Dyna-Gro Seed	S48XT90	4.0	3.5	3.8	4.0	<b>3.8</b>
Dyna-Gro Seed	S41ES80	3.0	3.8	3.8	3.8	<b>3.6</b>
Dyna-Gro Seed	S46ES91	3.0	3.5	3.5	3.5	<b>3.4</b>
Dyna-Gro Seed	S48XF61S	2.8	3.3	3.3	3.3	<b>3.2</b>

Dyna-Gro Seed	S46XF31S	3.8	4.0	3.8	4.0	<b>3.9</b>
Dyna-Gro Seed	S48EN02	3.0	3.0	3.3	3.5	<b>3.2</b>
Dyna-Gro Seed	S46XS60	2.5	3.5	3.3	3.5	<b>3.2</b>
Dyna-Gro Seed	S39XF41	4.0	3.3	3.5	3.8	<b>3.7</b>
HiSOY	HS 48E10	2.8	2.8	3.0	3.0	<b>2.9</b>
HiSOY	HS 39E10	2.8	2.8	3.0	3.0	<b>2.9</b>
HiSOY	HS 43E00	2.8	2.8	3.0	3.3	<b>3.0</b>
HiSOY	HS 45E00	2.3	2.0	2.5	3.0	<b>2.5</b>
Innvictis Seed Solutions	A4690XF	3.0	3.3	3.3	3.8	<b>3.4</b>
Innvictis Seed Solutions	B4609E	3.0	3.0	3.5	3.8	<b>3.3</b>
Innvictis Seed Solutions	B4440E	2.5	2.8	3.0	3.3	<b>2.9</b>
MorSoy	MS 5640XF	4.0	2.8	3.3	3.3	<b>3.4</b>
MorSoy	MS 5491XF	2.5	3.0	3.0	3.3	<b>3.0</b>
MorSoy	MS 3861XF	2.8	3.3	3.3	3.3	<b>3.2</b>
MorSoy	MS 4850XF/STS	3.5	3.0	3.5	3.5	<b>3.4</b>
MorSoy	MS 5461E	3.5	3.3	3.5	3.5	<b>3.5</b>
MorSoy	MS 4640XF	3.5	3.8	3.8	3.8	<b>3.7</b>
NK Brand	NK43-V8XF	3.0	3.3	3.3	3.8	<b>3.4</b>
NK Brand	NK45-P9XF	3.8	3.3	3.5	4.0	<b>3.7</b>
NK Brand	NK45-V9E3	3.0	3.0	3.3	3.5	<b>3.2</b>
Seed Consultants	SC7381E	2.0	2.3	2.5	3.0	<b>2.5</b>
Seed Consultants	SC7461E	2.3	3.0	2.8	3.0	<b>2.8</b>
Seed Consultants	SC7481E	2.0	2.3	2.8	3.3	<b>2.6</b>
Seed Consultants	SC7421E	2.0	2.5	2.5	3.0	<b>2.5</b>

Seed Consultants	SC7390E	2.0	3.0	2.8	3.0	<b>2.7</b>
Seed Consultants	SC7372E	2.0	2.3	2.5	2.8	<b>2.4</b>
Southern Harvest	SH 5321 E3	3.8	3.5	3.5	3.8	<b>3.7</b>
Southern Harvest	SH 4820 E3	2.8	2.8	3.0	3.3	<b>3.0</b>
Southern Harvest	SH 5122 E3	3.0	2.8	3.3	3.3	<b>3.1</b>
Southern Harvest	SH 4022 E3	3.3	2.8	3.3	3.3	<b>3.2</b>
USG	USG 7461XFS	3.8	3.5	3.5	3.8	<b>3.7</b>
USG	USG 7441XF	3.5	2.8	3.3	3.3	<b>3.2</b>
USG	USG 7382ETS	3.3	3.0	3.3	3.3	<b>3.2</b>
USG	USG 7420ETS	2.8	2.8	3.0	3.0	<b>2.9</b>
USG	USG 7429ET	2.8	2.3	2.8	3.0	<b>2.7</b>
USG	USG 7431ET	2.0	2.0	2.3	2.8	<b>2.3</b>
USG	USG 7392XFS	3.3	3.8	3.5	3.8	<b>3.6</b>
USG	USG 7451ET	3.0	3.0	3.3	3.5	<b>3.2</b>
USG	USG 7472ETS	2.5	2.8	2.8	3.0	<b>2.8</b>

All variety replications were given a seed emergence/vigor rating that was then averaged for each location. The location ratings were then averaged to give a state wide rating.

Seed Emergence/ Vigor Rating Scale

**1=** Poor Emergence, Poor Vigor

**2=** Delayed/Moderate Emergence, Moderate Vigor

**3=** Good Emergence, Good Vigor

**4=** Excellent Emergence, High Vigor