

# 2020 Soybean Variety Trial Report



## Two Location Yield Summary – Maturity Group 3.6 to 4.5

This page provides the yield summaries for both locations. The organic site was conducted on a Hyde loam at IMPACT Agronomics’ research farm in Pantego, NC. The mineral site was conducted on a Cape Fear fine sandy loam at Tetterton Family Farms in Pantego, NC. More details, including planting information, fertility, moisture, and test weight for each trial and location can be found on the following pages.

### 2-Site Yield Data - Group 3.6 to 4.5 Variety Trials

Variety	Dry Yield (bu/A-13%)		
	Mineral	Organic	Average
AgVenture 45W7R	57.5	<b>74.9</b>	<b>66.2</b>
Competitor C	<b>69.9</b>	62.0	65.9
USG 7447XTS	67.1	62.5	64.8
AgriGold 4190RX	60.4	65.4	62.9
AgriGold 4440RX	56.1	64.5	<b>60.3</b>
Competitor B	<b>58.3</b>	58.1	58.2
AgriGold 3620RX	<b>57.8</b>	57.1	57.5
Southern Harvest X3822GE3	56.6	58.0	57.3
Southern Harvest X3731GE3	50.1	64.4	57.2
Competitor A	<b>57.2</b>	55.4	56.3
Asgrow 38x8	53.5	55.8	54.6
Southern Harvest 4020 E3	40.7	61.7	51.2

Highlighted variety means do not significantly differ from the **top yielder** with in each column.

## Two Location Yield Summary – Maturity Group 4.6 to 5.3

This page provides the yield summaries for both locations. The organic site was conducted on a Hyde loam at IMPACT Agronomics' research farm in Pantego, NC. The mineral site was conducted on a Cape Fear fine sandy loam at Tetterton Family Farms in Pantego, NC. More details, including planting information, fertility, moisture, and test weight for each trial and location can be found on the following pages.

### 2-Site Yield Data - Group 4.6 to 5.3 Variety Trials

Variety	Dry Yield (bu/A-13%)		
	Mineral	Organic	Average
NK S47-Y9X	64.8	<b>68.1</b>	<b>66.5</b>
USG 7480XT	<b>71.8</b>	59.7	65.7
G 4815RX	62.4	63.6	63.0
A 48-D25	66.7	58.6	62.7
NK S51-R3XS	62.0	62.6	62.3
Competitor X	61.1	62.7	61.9
NK S49-5FX	62.5	60.0	61.3
Southern Harvest 5321 E3	64.4	57.9	61.1
USG 7487XTS	64.1	57.7	60.9
G 4605RX	56.5	65.1	60.8
Competitor Y	62.9	58.4	60.6
A 46-D09	57.0	64.0	60.5
SH X5121	62.1	58.6	60.3
USG 7529XYS	61.3	58.9	60.1
SH 4820 E3	57.4	60.3	58.8
USG 74801ET	59.4	57.9	58.7
AG 48X9	64.5	51.7	58.1
A 49-D14	58.6	57.3	57.9
AG 52X9	49.1	60.8	54.9

Highlighted variety means do not significantly differ from the **top yielder** in each column.

## Organic Soil – Group 3.6 to 4.5 Variety Trial – Trial Overview

This trial was planted at IMPACT’s Pike Road farm in Pantego, NC. The soil type for this location is a Hyde Loam with approximately 22% organic matter and is classified as an organic soil by NCDA. This trial was planted on April 30 and harvested on October 5. The plots were 6 rows by 40 feet long, with 24-inch row spacing, replicated four times. It was planted at a rate of 110,000 seeds/A. This trial received a maintenance fungicide application of Quadris Top SBX at 9 oz/A at the R3 growth stage.

The organic site was very wet in the early part of the season, but the crop rarely appeared to be stressed from excess water and it grew very well. During early flowering, a dry period of four weeks occurred. This location did not show any observable drought symptoms during this period. The hurricane did not cause any lodging issues in this trial.

### Organic Site – Group 3.6 to 4.5 Variety Trial Harvest Data

Variety	Dry Yield (13%)	% Moisture	Test Weight
AgVenture 45W7R	74.85 a	13.65 b	53.3 ab
AgriGold 4190RX	65.38 b	13.6 b	52.95 abc
AgriGold 4440RX	64.5 b	13.4 b	52.28 bcd
Southern Harvest X3731GE3	64.37 b	14.29 a	50.86 e
USG 7447XTS	62.48 bc	13.48 b	52.43 a-d
Competitor C	61.98 bc	13.5 b	52.73 abc
Southern Harvest 4020 E3	61.73 bcd	13.38 b	53.68 a
Competitor A	58.08 cde	13.53 b	51.38 de
Southern Harvest X3822GE3	58 cde	13.5 b	53.2 ab
AgriGold 3620RX	57.13 de	13.55 b	51.85 cde
Asgrow 38x8	55.75 e	13.65 b	52.88 abc
Competitor B	55.44 e	13.38 b	51.47 de
LSD P=.10	4.775	0.412	1.224
Standard Deviation	0.344	1.021	3.983
CV	6.45	2.53	1.95

## Organic Soil – Group 4.6 to 5.3 Variety Trial – Trial Overview

This trial was planted at IMPACT’s Pike Road farm in Pantego, NC. The soil type for this location is a Hyde Loam with approximately 22% organic matter and is classified as an organic soil by NCDA. This trial was planted on April 30 and harvested on October 23. The plots were 6 rows by 40 feet long, with 24-inch row spacing, replicated four times. It was planted at a rate of 110,000 seeds/A. This trial received a maintenance fungicide application of Quadris Top SBX at 9 oz/A at the R3 growth stage.

The organic site was very wet in the early part of the season, but the crop rarely appeared to be stressed from excess water and it grew very well. During early flowering, a dry period of four weeks occurred. This location did not show any observable drought symptoms during this period. The hurricane did not cause any lodging issues in this trial.

### Organic Site – Group 4.6 to 5.3 Variety Trial Harvest Data

Variety	Dry Yield (13%)	% Moisture	Test Weight
Northrup King S47-Y9X	68.14 a	13.14 e	50.32 cd
AgriGold 4605RX	65.11 ab	13.54 cde	50.95 a-d
Armor 46-D09	64 ab	13.88 b-e	52 ab
AgriGold 4815RX	63.63 ab	13.73 cde	50.95 a-d
Competitor X	62.7 ab	13.25 de	51 a-d
Northrup King S51-R3XS	62.55 ab	13.5 cde	50.58 bcd
Asgrow 52X9	60.8 ab	13.4 cde	50.35 bcd
Southern Harvest 4820 E3	60.25 ab	13.48 cde	51.5 abc
Northrup King S49-5FX	59.98 ab	13.4 cde	51.6 abc
USG 7480XT	59.68 bc	13.33 cde	51 a-d
USG 7529XYS	58.88 bc	13.38 cde	52.45 a
Armor 48-D25	58.63 bc	14.7 ab	52.55 a
Southern Harvest X5121	58.58 bc	13.45 cde	51.68 abc
Competitor Y	58.38 bc	14.05 a-d	49.73 d
USG 74801ET	57.91 bc	14.64 ab	51.82 abc
Southern Harvest 5321 E3	57.88 bc	13.53 cde	51.35 a-d
USG 7487XTS	57.73 bc	14.13 abc	52.05 ab
Armor 49-D14	57.25 bc	13.35 cde	51.05 a-d
Asgrow 48X9	51.65 c	14.8 a	51.93 abc
LSD P=.10	8.278	0.852	1.667
Standard Deviation	6.988	0.719	1.407
CV	11.67	5.24	2.74

## Mineral Soil – Early Hybrid Trial – Site Description

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This trial was planted at Tetterton Family Farm Pantego, NC. The soil type for this location is a Cape Fear fine Loam with approximately 7% organic matter and is classified as a mineral soil by NCDA. This trial was planted on May 8 and harvested on October 9. The plots were 6 rows by 40 feet long, with 24-inch row spacing, replicated four times. It was planted at a rate of 110,000 seeds/A. This trial received a maintenance fungicide application of Quadris Top SBX at 9 oz/A at the R3 growth stage.

This site was very wet in the early part of the season, and the crop did show some stress from excessive water when the plants were about 8 inches tall. After this growth was good until it was slowed some a dry period of four weeks occurred during early flowering. This location did not show any observable drought symptoms during this period. The hurricane did not cause any lodging issues in this trial.

### Mineral Site - Group 3.6. to 4.5 Variety Trial Harvest Data

Variety	Dry Yield (13%)		% Moisture		Test Weight	
Competitor C	69.88	a	16.13	bcd	54.3	abc
USG 7447XTS	67.13	ab	15.2	cd	54.4	abc
AgriGold 4190RX	60.38	abc	16.3	bc	54.3	abc
Competitor B	58.28	abc	16.33	bc	54.08	abc
AgriGold 3620RX	57.8	abc	16.48	bc	54.95	a
AgVenture 45W7R	57.53	abc	15.65	bcd	52.5	de
Competitor A	57.23	abc	17.1	ab	53.45	cd
Southern Harvest X3822GE3	56.6	bc	16.6	abc	53.58	bcd
AgriGold 4	56.05	bc	14.5	d	54.78	ab
Asgrow 38x8	53.53	cd	16.85	abc	54.35	abc
Southern Harvest X3731GE3	50.08	cd	17.35	ab	54.88	a
Southern Harvest 4020 E3	40.65	d	18.23	a	52.18	e
LSD P=.10	13.144		1.746		1.222	
Standard Deviation	10.984		1.459		1.021	
CV	19.24		8.9		1.89	

## Mineral Soil – Late Hybrid Trial – Site Description

This trial was planted at Tetterton Family Farm Pantego, NC. The soil type for this location is a Cape Fear fine Loam with approximately 7% organic matter and is classified as a mineral soil by NCDA. This trial was planted on May 8 and harvested on October 24. The plots were 6 rows by 40 feet long, with 24-inch row spacing, replicated four times. It was planted at a rate of 110,000 seeds/A. This trial received a maintenance fungicide application of Quadris Top SBX at 9 oz/A at the R3 growth stage.

This site was very wet in the early part of the season, and the crop did show some stress from excessive water when the plants were about 8 inches tall. After this growth was good until it was slowed some a dry period of four weeks occurred during early flowering. This location did not show any observable drought symptoms during this period. The hurricane did not cause any lodging issues in this trial.

**Mineral Site - Group 4.6 to 5.3 Variety Trial Harvest Data**

Variety	Dry Yield (13%)		% Moisture		Test Weight
USG 7480XT	71.8	a	14.05	b	51.25 a
Armor 48-D25	66.73	ab	13.33	bc	52.63 a
Northrup King S47-Y9X	64.8	ab	13.33	bc	52.5 a
Asgrow 48X9	64.53	ab	13.3	bc	52.43 a
Southern Harvest 5321 E3	64.4	ab	13.33	bc	51.9 a
USG 7487XTS	64.13	ab	13.4	bc	53.35 a
Competitor Y	62.9	ab	13.55	bc	51.5 a
Northrup King S49-5FX	62.53	ab	13.18	bc	51.25 a
AgriGold 4815RX	62.38	ab	13.35	bc	52.05 a
Southern Harvest X5121	62.1	ab	13.23	bc	50.28 a
Northrup King S51-R3XS	61.98	ab	13.15	c	50.68 a
USG 7529XYS	61.25	b	13.4	bc	39.85 b
Competitor X	61.1	b	13.25	bc	50.9 a
USG 74801ET	59.4	b	13.2	bc	49.45 a
Armor 49-D14	58.55	bc	15.45	a	47.1 ab
Southern Harvest 4820 E3	57.35	bc	13.45	bc	49.03 a
Armor 46-D09	56.95	bc	13.75	bc	50.55 a
AgriGold 4605RX	56.48	bc	13.38	bc	50.63 a
Asgrow 52X9	49.08	c	13.55	bc	52.53 a
LSD P=.10	10.287		0.881		7.469
Standard Deviation	8.693		0.745		6.311
CV	14.14		5.51		12.49

## Seed Company Information

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We would like to thank all of the seed companies that sponsored hybrids in these two trials this year. We would also like to thank the growers who donated some seed to use as the competitor varieties. We look forward to continuing and expanding our hybrid testing in 2021.

**AgriGold**

Britt Boyd

252-943-4390

[britt@darkwater.biz](mailto:britt@darkwater.biz)

**Bayer - DeKalb**

Zack Webb

252-230-1097

[zachary.webb@bayer.com](mailto:zachary.webb@bayer.com)

**Southern Harvest**

Matt Lassiter

252-578-9514

[mlassiter@mehrrinag.com](mailto:mlassiter@mehrrinag.com)

**Armor**

Jeff Pangle

870-588-7919

[jeffpangle@armorseed.com](mailto:jeffpangle@armorseed.com)

**Northrup King**

Bill Prichett

919-482-1928

[Bill.Prichett@syngenta.com](mailto:Bill.Prichett@syngenta.com)

**Uni-South Genetics (USG)**

Stacey Burwick

800-505-3133

[sburwick@usgseed.com](mailto:sburwick@usgseed.com)