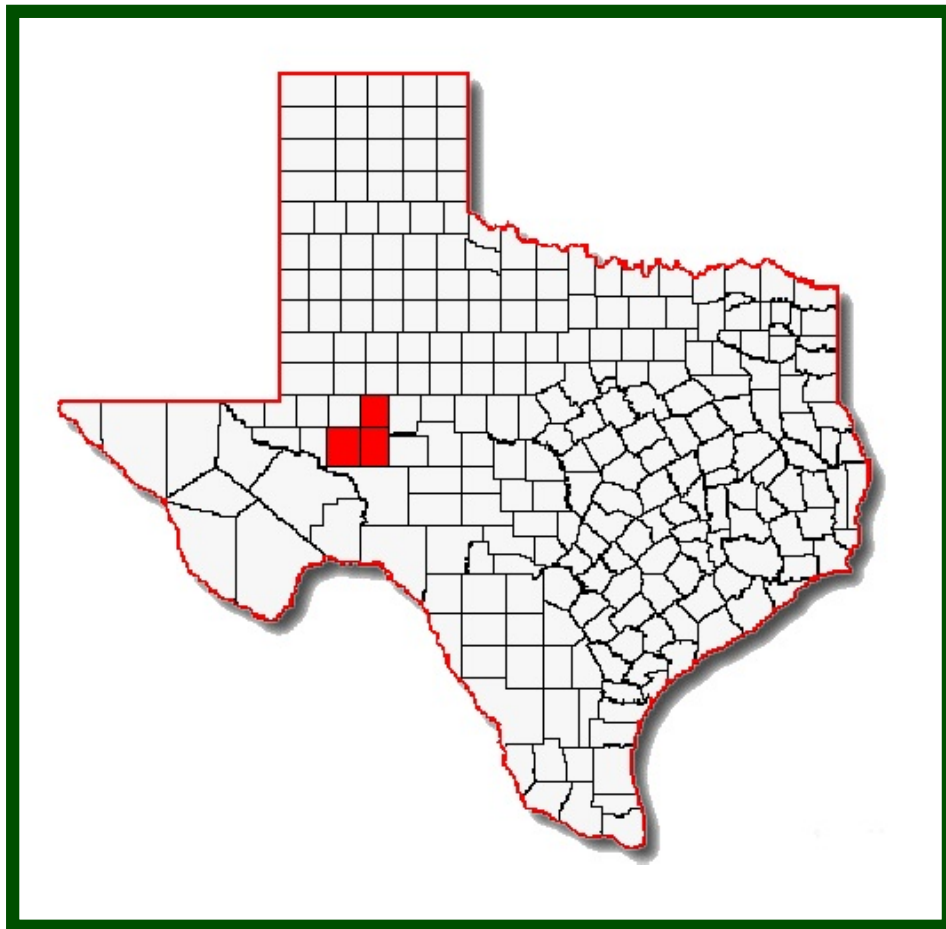


# INTEGRATED PEST MANAGEMENT



Glasscock, Reagan & Upton  
IPM Program  
2016



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TEXAS A&M  
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EXTENSION

# GLASSCOCK, REAGAN, and UPTON COUNTIES PEST MANAGEMENT PROGRAM

**2016**

## **ANNUAL REPORT**

Prepared by:



**Brad Easterling**

**Extension Agent-Integrated Pest Management Glasscock, Reagan  
and Upton Counties**

In cooperation with

**Jacob McKillip, Extension Agent-Agriculture, Glasscock County**

**Chase McPhaul, Extension Agent-Agriculture, Reagan County**

**Raymond Quigg, Extension Agent- Agriculture, Upton County**

And

**TEXAS PEST MANAGEMENT ASSOCIATION**



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## PREFACE

The Texas Pest Management program began in 1972 with four county based staff members. The program was founded by participating producers, the U.S. Department of Agriculture and the Texas Pest Management Association (TPMA), whose membership is made up of commodity organizations across Texas. TPMA administers the funds of the local Pest Management Program. The objectives are to improve pest control and increase net profits through the adoption of sound principles of pest management.

The St. Lawrence Pest Management Program strives to increase producer knowledge of new scouting techniques and to use them to make sound management decisions. Our program is also aimed toward being an alert system for area producers when economic pest problems arise. Result demonstration and applied research are also an integral part of the overall program. The pest management program in this area was initiated to conduct the early diapause programs and has diversified to meet other needs as they are identified.

## ACKNOWLEDGMENTS

Cooperation of all area producers is very important for a successful pest management program. We would like to express our sincere appreciation to all producer members of the St. Lawrence Cotton Growers Association for their participation and aid in the Pest Management Program.

Appreciation is also extended to the following people for their help in planning and implementing the 2016 program.

Board of Directors of the St. Lawrence Cotton Growers:

Chris Hirt  
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Pat Pelzel  
Eric Seidenberger  
Wayne Jansa

Allan Fuchs  
Jeremy Gully  
Cody Wilson  
John Evridge  
Russell Halfmann

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SAMMY KELLMEIER

## INTRODUCTION

A “survey type” pest management program was operated in 2016 in the St. Lawrence Area. The program has been in operation for the past thirty-seven years in Glasscock, Reagan and Upton Counties. The major objectives of the program are to alert producers of pest population buildup in their area and teach them to identify and manage these problems.

Cotton is the major crop produced in the three counties. Additionally, acreages of wheat, grain sorghum, corn, and watermelons are grown. In Table 1 below are the estimated cotton acreages combined for each county and the approximate lint yields. There were 123,363 dryland acres planted with very few acres failed this season due to good soil moisture early despite a very dry July and August.

TABLE 1

COTTON LINT YIELDS FOR 2016

COUNTY	COTTON ACREAGE	AVERAGE YIELD
GLASSCOCK	104,956	490
REAGAN	37,962	490
UPTON	15,457	490

Several pests attack cotton in the St. Lawrence Area. Bollworms and fleahoppers are generally the major pests. Pink bollworm populations have decreased over the past several seasons and are not an economic problem now. Grasshoppers, thrips, and spider mites are occasional pests in the area. The major weed problems in the area are silver leaf nightshade, hog potato, bundle flower, devil’s claw, prairie sunflower, dwarf crown beard, morning glory, field bindweed, and other perennial weeds. We are now starting to see glyphosate resistant pigweed in the area. This will take a new approach to weed control in the future. Cotton root rot, verticillium wilt and seedling disease are the primary diseases of cotton in the three county area.

Weather conditions are the major limiting factor to crop production in the area. Rainfall is important in the area because irrigation water is limited. High winds, hail and blowing sand can cause severe damage to cotton. However, temperature and length of growing season are sufficient for good cotton growth. This season, spotty rainfall during the growing season, limited irrigated cotton yields across the area.

The pest management annual report includes information concerning the survey scouting program, the pest situation and result demonstrations for 2016. I hope it will be informative to all persons interested in the program.

## STEERING COMMITTEE

The Board of Directors of the St. Lawrence Cotton Growers Association acts as the local pest management steering committee. The board consists of ten dedicated producers from the three county areas. These board members are elected by the producers in nine districts. The board has worked diligently throughout the year to make the program a total effort. The members of the board are as follows:

President .....Allan Fuchs  
 Vice-President.....Eric Seidenberger/Pat Pelzel  
 Secretary-Treasurer.....Chris Hirt  
 .....Wayne Jansa  
 .....James Schwartz  
 .....Jeremy Gully  
 .....John Evridge  
 .....Cody Wilson  
 ..... Russell Halfmann  
 .....Wilbert Braden

## RAINFALL FOR 2016

	<u>BIG LAKE</u>	<u>LOMAX</u>	<u>ST. LAWRENCE</u>
JAN-	.45	.11	.15
FEB-	.26	.42	.55
MARCH-	1.65	.59	1.07
APRIL-	3.83	1.55	2.59
MAY-	5.50	7.11	1.42
JUNE-	2.73	5.50	2.84
JULY-	.26	2.60	.25
AUG-	.72	3.51	2.33
SEPT-	4.90	.85	3.23
OCT-	.08	.69	.03
NOV-	2.58	3.41	3.95
DEC-	.42	.39	.27
<b><u>TOTAL</u></b>	<b>23.38</b>	<b>26.73</b>	<b>18.68</b>



TABLE 2

STATUS OF ACCOUNT BALANCE FOR  
GLASSCOCK, REAGAN, AND UPTON COUNTIES

FUNDS ON HAND, JANUARY 1, 2016	0.00
BUDGET RECEIPTS	
UNITS SCOUTING CONTRIBUTIONS	39,000.00
TOTAL INCOME	39,000.00
SCOUTING EXPENSE	
ACCOUNT TRANSFER—EXPENSE	14,305.08
ADMINISTRATIVE FEE	5,508.00
PAYROLL TAX EXPENSE	869.58
TRAVEL—SCOUT	6,241.64
WAGES (SALARY AND WAGES)	9,451.89
MEMBERSHIP PAID	<u>2,280.00</u>
TOTAL SCOUTING EXPENSE	38,656.19
OPERATING BALANCE AS OF DATE	
CASH IN BANK	<u>343.81</u>
TOTAL CURRENT BALANCE	343.81

## SCOUTING PROGRAM ACTIVITIES

The St. Lawrence Area covering Glasscock, Reagan and Upton Counties had a total of 154,856 acres of cotton. There are approximately 130 producers that are members of the St. Lawrence Cotton Growers Association. The survey type program gathers information to alert producers of possible insect pest problems. Most of the scouting was directed toward thrips, fleahoppers, aphids, and stinkbugs. The eight scouts checked 92 complete count fields.

Following is a table of the 2016 scouting statistics.

TABLE 3 – ST. LAWRENCE AREA SCOUTING STATISTICS - 2016

NUMBER OF COMPLETE COUNT FIELDS	92
AVERAGE SIZE OF FIELDS	120 ACRES
NUMBER OF SCOUTS	8
PROGRAM FINANCING - IRRIGATED	\$0.75 PER BALE
PROGRAM FINANCING - DRYLAND	\$0.25 PER ACRE
TOTAL ACRES - IRRIGATED	31,493
TOTAL ACRES - DRYLAND	123,363
PROGRAM EXPENDITURES	39,000.00
MILEAGE RATE	.55/MILE
SCOUT HOURLY RATE	\$10.00

The eight field scouts began work by attending a scout training seminar in Garden City. This training allows the scouts to practice insect identification and scouting techniques in cotton fields similar to what they will see later in the season here. During the first couple of weeks the scouts familiarize themselves with the early season pests such as grasshoppers, thrips, aphids and beet armyworms. These insects were reported on a number per plant basis. Plant stand counts and crop phenology were recorded as well. This information is used to help determine if a sufficient and uniform stand has been established as well if replanting may need to occur. As the first pinhead squares began appearing, the scouts' attention was targeted at fleahopper scouting. They counted the number of fleahoppers per 100 terminals and also determined the percent square set.

As the cotton began squaring, the scouts examined 10 plants in four locations of each field for bollworm eggs and different size larvae. This data was then converted to numbers per acre and reported to area farmers. Beneficial arthropod populations were monitored by counting the number on 40 plants and converting to number per acre. This is very important when making bollworm control decisions.

The information from these complete count fields was intended for all area producers. The information was presented in bi-weekly newsletters and posted in area gins. This information was used by all producers to determine when to intensify scouting.

## PEST SITUATION

Pest populations in 2016 were low. Thrips numbers were light in most fields this year with minor exceptions near wheat. Fleahopper populations were very light and very few fields were treated in the area. Most of those fields were treated at the same time as a herbicide application was being made.

Worm pests were extremely low and almost all cotton had a worm control gene. One exception was for a location near Garden City in which a Bt field had an extremely large number of bollworms that had to be treated. I have also received a report of a similar situation near San Angelo and several in South Texas and along the coast. All of the reports involve different varieties.

Boll weevil numbers were zero and no fields showed economic infestations this season.

Stink bugs were at low levels this season. Damage could be seen in a few fields around the area, mostly in locations surrounded by pasture

Deer and especially rabbits were one of the greatest pests this season, especially the further west and south you went. In some cases entire fields were destroyed by rabbits feeding every night.

Irrigated cotton had average yields. Dryland cotton had above average with many fields yielding as high as a bale per acre. Most of this cotton was made on preseason moisture as the growing season was dry.

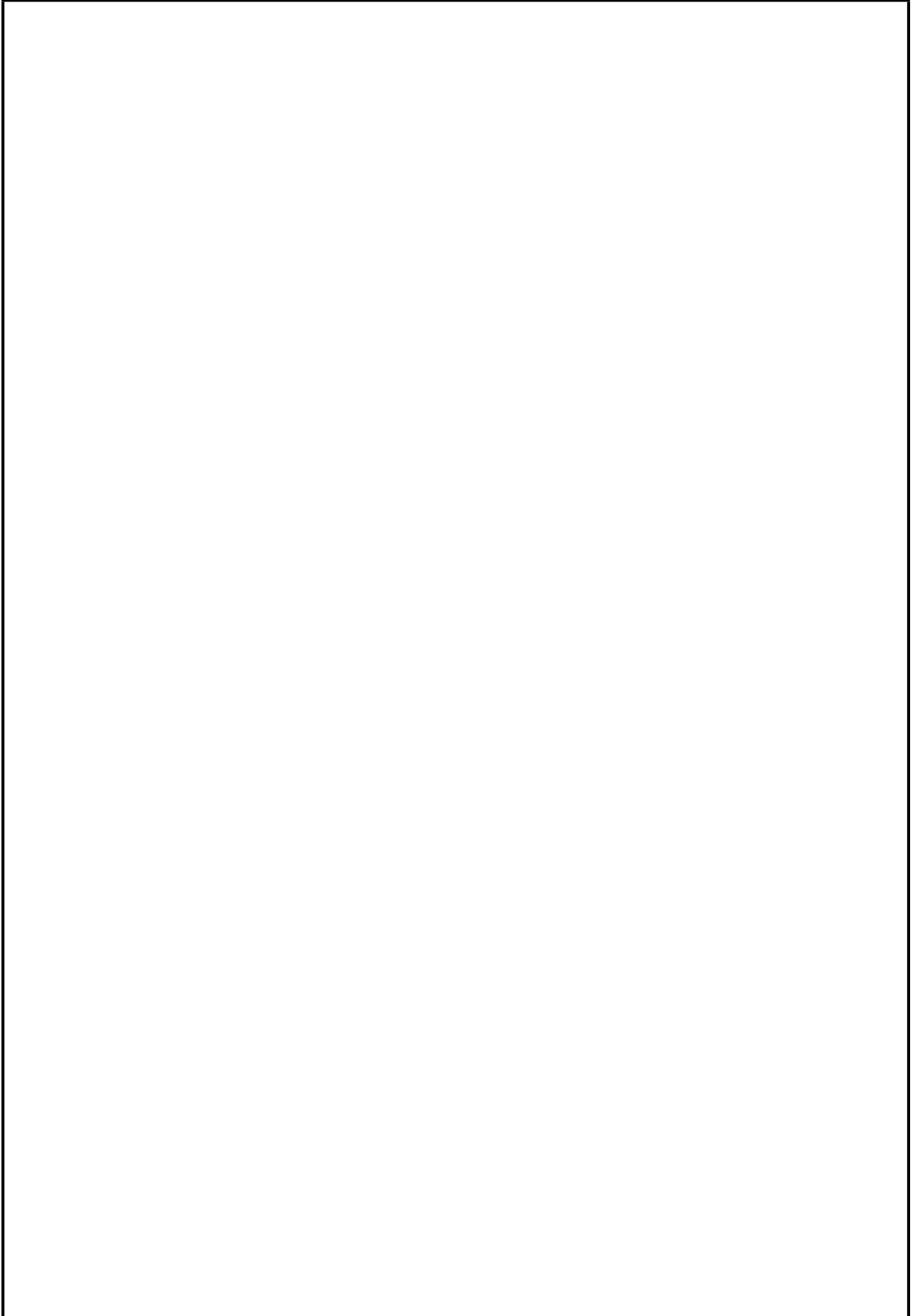
## EDUCATIONALACTIVITIES

The St. Lawrence Pest Management Program includes many educational programs. The primary objective of the program is education. Producers are taught how to identify, scout and manage their pest populations in an economic way. Scout training meetings and personal contacts are methods used in the educational program. An emphasis is directed to training producers, spouses and family members to scout insects. The personal contacts with one-on-one scout training and management decision making are probably the most valuable techniques used. The result demonstration program and applied research projects are an integral part of the program. The turnrow meetings are held weekly in each county to discuss current insect problems and to get hands-on scouting experience. Table 4, below, is an overview of educational activities.

TABLE 4

### Educational Activities

Producer Contacts	842
Turnrow Meetings	24
Newsletters	11
Tours	1
Miscellaneous Crop Producer Meetings	6
Total Persons Provided Scout Training	8
Result Demonstrations	15
Pest Management Committee Meetings	8



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Result Demonstration Reports



# Result Demonstration Report

## DRY LAND COTTON VARIETY DEMONSTRATION

Cooperator: Austin & Carl Hoelscher

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties, Garden City, Texas  
Jacob McKillip, CEA-AG, Glasscock County, Garden City, Texas

Glasscock County

### **SUMMARY**

Sixteen cotton varieties were compared in strip plots under similar field conditions. Lint yields varied with a low of 282 lb/acre (DP 1522 B2XF) to a high of 425 lb/acre (DG 2570 B2RF). Lint loan values averaged \$0.5462 /lb and ranged from a low of \$0.5010/lb (DP 1522 B2XF) to a high of \$0.5770/lb (FM 2334 GLT). Gross Return/acre among varieties ranged from a high of \$288.68 (FM 2484 B2F) to a low of \$181.27 (DP 1522 B2XF), a difference of \$107.41.

### **PROBLEMS**

Area cotton producers are continually searching for a cotton variety that will increase net profits through increased yield and fiber qualities. Higher strength and longer staple are the primary characteristics they are looking for as well as varieties that are tighter in the boll.

### **OBJECTIVE**

To find a cotton variety that will increase net profit with an increase in yield and fiber qualities. These varieties must also fit the limited irrigation of the St. Lawrence cotton growing region.

### **MATERIALS AND METHODS**

The field used for this test was drip irrigated. The varieties were planted in 10 row plots in a 10 x 1 pattern on 40" spacing on June 3<sup>rd</sup>. Approximate rainfall totals for the growing season was 9.78 in. The plots were fertilized with 150 lbs of N. They were stripper harvested on October 15<sup>th</sup> and weighed in a boll buggy on platform scales. Samples were ginned at the Lubbock Extension and Research Center, and fiber samples were sent off for classing.



## **RESULTS, DISCUSSION AND ECONOMIC ANALYSIS**

As seen in Table 1, lint yields varied with a low of 282 lb/acre for DeltaPine 1522 B2XF to a high of 425 lb/acre for DynaGro 2570 B2RF. Lint loan values averaged \$0.5462 /lb and ranged from a low of \$0.5010/lb for DeltaPine 1522 B2XF to a high of \$0.5770/lb for Fibermax 2334 GLT. Gross Return/acre among varieties ranged from a high of \$288.68 for Fibermax 2484 B2F to a low of \$181.27 for DeltaPine 1522 B2XF, a difference of \$107.41. Lint turnout ranged from a low of 26.21% to a high of 34.10% for DeltaPine 1612 B2XF and NexGen 3406 B2XF, respectively. Micronaire values ranged from a low of 3.9 for PhytoGen 444 WRF to a high of 4.9 for PhytoGen 222 WRF, NexGen 3406 B2XF, and DeltaPine 1522 B2XF. Staple averaged 35 across all varieties with a low of 33 for 4 varieties and a high of 37 for 5 varieties. Additionally, 3 varieties were 36, 2 were 35, and 2 were 34. The highest percent uniformity was observed for Fibermax 2334 GLT (82.4%) and Stoneville 5115 GLT had the lowest (78.9%). Strength values ranged from 28.2 g/tex for NexGen 3406 B2XF to 32.2 g/tex for Fibermax 2334 GLT. Color grades were mostly 21's and 31's with one 11. Leaf grades were mostly 1's, 2's, and 3's with 1 4 & 5. These data indicate that substantial differences can be obtained in terms of net value/acre due to variety and technology selection.

## **ACKNOWLEDGMENTS**

The authors would like to thank Mr. Austin Hoelscher and Mr. Carl Hoelscher for cooperating in this demonstration.

They would also like to thank the seed companies who donated the seed.

## 2016 Cotton Variety Trial

Producer: **Austin Hoelscher** Plant Date: 6/3/2016  
 Name of County: **GLASSCOCK** Harvest Date: 10/15/2016  
 Design: 10x1 Herbicide:  
 Fertility: 150 lbs N



Variety	Yield Per Acre		% TURNOUT		Loan Value	Lint Gross Return	Seed Gross Return	Color	Leaf	Staple	Mic	Strength	Unif	Gross Return (\$/acre)
	Lint	Seed	LINT	SEED										
FM 2484 B2F	399	616	28.12%	43.41%	\$0.5765	\$230.14	\$58.54	11	1	37	4.3	31.1	81.3	\$288.68
DG 2570 B2RF	425	641	29.62%	44.64%	\$0.5110	\$217.32	\$60.89	31	2	33	4.6	28.8	80.2	\$278.21
PHY 222 WRF	385	562	32.96%	48.13%	\$0.5515	\$212.23	\$53.38	31	3	35	4.9	30.9	81.9	\$265.61
PHY 444 WRF	369	549	29.85%	44.47%	\$0.5765	\$212.44	\$52.15	21	2	37	3.9	30.4	81.7	\$264.59
FM 2334 GLT	367	512	31.42%	43.86%	\$0.5770	\$211.64	\$48.63	21	1	37	4.5	32.2	82.4	\$260.27
DP 1219 B2RF	375	538	28.20%	40.53%	\$0.5580	\$208.98	\$51.14	21	2	35	4.3	29.6	80.7	\$260.12
FM 1911 GLT	370	553	32.06%	47.90%	\$0.5600	\$207.18	\$52.50	31	3	36	4.7	29.9	81.2	\$259.68
ST 4946 GLB2	390	598	30.62%	46.89%	\$0.5150	\$201.00	\$56.77	21	2	33	4.7	28.9	80.2	\$257.77
ST 5115 GLT	371	636	27.57%	47.34%	\$0.5295	\$196.21	\$60.44	21	1	34	4.0	30.4	78.9	\$256.65
NG 3406 B2XF	403	532	34.10%	45.08%	\$0.5110	\$205.71	\$50.57	31	2	33	4.9	28.2	80.9	\$256.28
FM 2007 GLT	349	560	29.76%	47.84%	\$0.5715	\$199.19	\$53.22	21	2	36	4.4	30.1	80.4	\$252.41
PHY 333 WRF	370	510	30.95%	42.74%	\$0.5340	\$197.36	\$48.48	31	5	36	4.4	29.7	82.0	\$245.84
DG 3385 B2XF	352	525	31.95%	47.68%	\$0.5345	\$188.07	\$49.88	21	2	34	4.8	28.4	81.7	\$237.95
FM 1830 GLT	314	462	30.25%	44.48%	\$0.5675	\$178.17	\$43.86	21	1	37	4.7	30.3	79.9	\$222.04
DP 1612 B2XF	283	461	26.21%	42.75%	\$0.5650	\$159.65	\$43.78	31	3	37	4.6	31.7	81.7	\$203.42
DP 1522 B2XF	282	421	28.73%	42.86%	\$0.5010	\$141.30	\$39.97	31	4	33	4.9	28.6	80.8	\$181.27
Average	363	542	30.15%	45.04%	\$0.5462	\$197.91	\$51.51	-	-	35	4.5	30.0	81.0	\$249.43
Max.	425	641	34.10%	48.13%	\$0.5770	\$230.14	\$60.89	-	-	37	4.9	32.2	82.4	\$288.68
Min.	282	421	26.21%	40.53%	\$0.5010	\$141.30	\$39.97	-	-	33	3.9	28.2	78.9	\$181.27

Grab samples ginned at the Texas A&M AgriLife Research and Extension Center, Lubbock. Quality analysis at the FBRI, Lubbock.

Gross Seed Return based on \$190/ton

For Questions Contact: Brad Easterling or Dr. David Drake (325)653-4576

# Result Demonstration Report

## IRRIGATED COTTON VARIETY DEMONSTRATION

Cooperator: Bo & Russ Eggemeyer

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties, Garden City, Texas  
Raymond Quigg, CEA-AG, Upton County, Rankin, Texas

Upton County

### **SUMMARY**

Seventeen cotton varieties were compared in strip plots under similar field conditions. Lint yields varied with a low of 1312 lb/acre (PHY 222 WRF) to a high of 2349 lb/acre (DG 3385 B2XF). Lint loan values averaged \$0.5549 /lb and ranged from a low of \$0.5105/lb (PHY 222 WRF) to a high of \$0.5790/lb (FM 2007 GLT). Gross Return /acre among varieties ranged from a high of \$1568.95 (DG 3385 B2XF) to a low of \$855.20 (PHY 222 WRF), a difference of \$713.75.

### **PROBLEMS**

Area cotton producers are continually searching for a cotton variety that will increase net profits through increased yield and fiber qualities. Higher strength and longer staple are the primary characteristics they are looking for as well as varieties that are tighter in the boll.

### **OBJECTIVE**

To find a cotton variety that will increase net profit with an increase in yield and fiber qualities. These varieties must also fit the limited irrigation of the St. Lawrence cotton growing region.

### **MATERIALS AND METHODS**

The field used for this test was drip irrigated. The varieties were planted in 6 row plots in a 2x1 skip row pattern on 40" spacing on May 24<sup>th</sup>. The seeding rate was approximately 42,000 seeds/ac or 3.21 sd/ft. The plots received approximately 11 in. of rain throughout the growing season. Irrigation capacity for this field was 2.5 gal/min. Total fertilizer applied for the trial was 90 units of N, 1 gallon of Rootriton and 1 gallon of MAP. They were stripper harvested on October 28<sup>th</sup> and weighed in a boll buggy on platform scales. Samples were ginned at the Lubbock Extension and Research Center, and fiber samples were sent off for classing.

## **RESULTS, DISCUSSION AND ECONOMIC ANALYSIS**

As seen in Table 1, lint yields varied with a low of 1312 lb/acre for PhytoGen 222 WRF to a high of 2349 lb/acre for DynaGro 3385 B2XF. Lint loan values averaged \$0.5549 /lb and ranged from a low of \$0.5105/lb for PhytoGen 222 WRF to a high of \$0.5790/lb for Fibermax 2007 GLT. Gross Return/acre among varieties ranged from a high of \$1,568.95 for DynaGro 3385 B2XF to a low of \$855.20 for PhytoGen 222 WRF, a difference of \$713.75. Lint turnout ranged from a low of 27.58% to a high of 39.32% for Stoneville 4946 GLB2 and DynaGro 3385 B2XF, respectively. Micronaire values ranged from a low of 4.4 for PhytoGen 444 WRF and Stoneville 5115 GLT to a high of 5.4 for PhytoGen 222 WRF. Staple averaged 37 across all varieties with a low of 35 for PhytoGen 495 W3RF and DynaGro 2570 B2RF and a high of 40 for DeltaPine 1646 B2XF. The highest percent uniformity was observed for PhytoGen 499 WRF (83.7%) and DeltaPine 1549 B2XF had the lowest (81.0%). Strength values ranged from 28.3 g/tex for DynaGro 3385 B2XF to 32.2 g/tex for DeltaPine 1219 B2RF. Color grades were mostly 21's with 1 grading an 11, and 3 grading a 31. Leaf grades were moderate in this trial with most being 2's and 3's. PhytoGen 444 WRF had a 1 and PhytoGen 222 WRF had a 4. Most varieties in this trial were competitive with several rising to the top. PhytoGen 222 WRF was placed in here to determine how early we could get by planting it. Overall it is a good variety, but needs to be planted much later than 5/24 such as June on dryland. Data is still lacking for an optimum irrigated planting date.

## **ACKNOWLEDGMENTS**

The authors would like to thank Mr. Bo Eggemeyer and Mr. Russ Eggemeyer for cooperating in this demonstration.

They would also like to thank the seed companies who donated the seed.

## 2016 Cotton Variety Trial

Producer:	<b>Bo &amp; Russ Eggemeyer</b>	Plant Date:	5/24/2016
Name of County:	<b>UPTON</b>	Harvest Date:	10/28/2016
Design:	6 rows, 2x1 skip	Herbicide:	
		Fertility:	90 units N, 1 gal Rootriton, 1 gal MAP



VARIETY	Yield Per Acre		% Turnout		Loan Value	Lint Gross Return	Seed Gross Return	Color	Leaf	Staple	Mic	Strength	Unif	Gross Return (\$/acre)
	Lint	Seed	Lint	Seed										
DG 3385 B2XF	2349	3186	39.32%	53.31%	\$0.5390	\$1,266.30	\$302.65	21	3	36	5.2	28.3	82.4	\$1,568.95
DP 1549 B2XF	2166	2895	33.33%	44.55%	\$0.5655	\$1,224.89	\$275.04	21	3	36	4.7	31.0	81.0	\$1,499.93
PHY 444 WRF	2123	2739	33.34%	43.02%	\$0.5775	\$1,226.05	\$260.24	21	1	39	4.4	30.5	83.4	\$1,486.29
ST 5115 GLT	2074	2907	33.44%	46.85%	\$0.5750	\$1,192.79	\$276.13	21	2	37	4.4	30.9	81.9	\$1,468.92
FM 2484 B2F	2046	2970	32.13%	46.65%	\$0.5710	\$1,168.37	\$282.19	11	3	38	4.7	31.4	82.7	\$1,450.55
NG 3406 B2XF	2122	2946	35.70%	49.58%	\$0.5425	\$1,151.05	\$279.91	21	3	36	5.1	30.0	83.2	\$1,430.96
ST 4848 GLT	2016	2229	36.53%	40.40%	\$0.5545	\$1,117.77	\$211.78	21	2	38	5.0	31.0	81.9	\$1,329.55
PHY 499 WRF	1863	2494	31.70%	42.43%	\$0.5670	\$1,056.43	\$236.94	21	3	36	4.9	31.4	83.7	\$1,293.37
DP 1646 B2XF	1826	2374	32.32%	42.02%	\$0.5755	\$1,050.68	\$225.52	21	2	40	4.9	29.7	83.1	\$1,276.20
PHY 495 W3RF	1870	2516	31.47%	42.33%	\$0.5535	\$1,035.09	\$239.02	31	3	35	4.9	32.1	82.0	\$1,274.10
DP 1219 B2RF	1824	2440	31.03%	41.51%	\$0.5690	\$1,037.72	\$231.78	21	3	37	4.6	32.2	81.3	\$1,269.50
DG 2570 B2RF	1863	2729	34.58%	50.65%	\$0.5375	\$1,001.33	\$259.25	21	2	35	5.0	30.2	82.8	\$1,260.58
FM 2334 GLT	1839	2472	33.73%	45.33%	\$0.5535	\$1,018.10	\$234.85	21	2	38	5.1	30.8	82.7	\$1,252.95
FM 2007 GLT	1700	2593	28.77%	43.88%	\$0.5790	\$984.40	\$246.38	21	2	39	4.6	31.6	83.0	\$1,230.78
ST 4946 GLB2	1675	2490	27.58%	40.99%	\$0.5275	\$883.63	\$236.51	31	3	36	5.3	31.9	83.6	\$1,120.15
NG 4545 B2XF	1643	2384	30.13%	43.71%	\$0.5360	\$880.63	\$226.45	21	2	36	5.3	31.5	82.2	\$1,107.08
PHY 222 WRF	1312	1953	28.49%	42.43%	\$0.5105	\$669.63	\$185.57	31	4	36	5.4	30.4	82.7	\$855.20
Average	1901	2607	32.56%	44.69%	\$0.5549	\$1,056.76	\$247.66	-	-	37	4.9	30.9	82.6	\$1,304.42
Max.	2349	3186	39.32%	53.31%	\$0.5790	\$1,266.30	\$302.65	-	-	40	5.4	32.2	83.7	\$1,568.95
Min.	1312	1953	27.58%	40.40%	\$0.5105	\$669.63	\$185.57	-	-	35	4.4	28.3	81.0	\$855.20

Grab samples ginned at the Texas A&M AgriLife Research and Extension Center, Lubbock. Quality analysis at the FBRI, Lubbock.

Gross Seed Return based on \$190/ton

For Questions Contact: Brad Easterling or Dr. David Drake (325)653-4576

# Result Demonstration Report

## IRRIGATED COTTON VARIETY DEMONSTRATION

Cooperator: John Evridge

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties, Garden City, Texas  
Raymond Quigg, CEA-AG, Upton County, Rankin, Texas

Upton County

### **SUMMARY**

Fourteen cotton varieties were compared in strip plots under similar field conditions. Lint yields varied with a low of 495 lb/acre (DP 1549 B2XF) to a high of 803 lb/acre (FM 2484 B2F). Lint loan values averaged \$0.5599 /lb and ranged from a low of \$0.5115/lb (PHY 495 W3RF) to a high of \$0.5790/lb (DP 1549 B2XF). Gross Return/acre among varieties ranged from a high of \$569.30 (FM 2484 B2F) to a low of \$362.68 (DP 1549 B2XF), a difference of \$206.62.

### **PROBLEMS**

Area cotton producers are continually searching for a cotton variety that will increase net profits through increased yield and fiber qualities. Higher strength and longer staple are the primary characteristics they are looking for as well as varieties that are tighter in the boll.

### **OBJECTIVE**

To find a cotton variety that will increase net profit with an increase in yield and fiber qualities. These varieties must also fit the limited irrigation of the St. Lawrence cotton growing region.

### **MATERIALS AND METHODS**

The field used for this test was drip irrigated. The varieties were planted in 8 row plots in a solid pattern on 40" spacing on May 16<sup>th</sup>. The seeding rate was approximately 39,000 seeds/ac or 2.98 sd/ft. The plots received 7.2 in. of rain preplant and no prewater. They received 2.79 in. of rain from planting until 10/1. 9.96 in. irrigation was applied from 6/20-9/18. The plots were fertilized with 87 units/ac. of 32-0-0 injected through the tape and 10 gallons/ac. of PeakAcid through the tape in July. A Roundup application was made on 6-27 with 32 oz. of Roundup and LI700. On 10/10/16 3.3 oz. Daze, 2.2 oz. Diurone and 1 oz. 3 lb. Paraquat were used in addition to a second application of 15 oz. 3 lb Paraquat with .32 oz. Aim 10 days later. They were stripper harvested on October 24<sup>th</sup> and

weighed in a boll buggy on platform scales. Samples were ginned and fiber samples were sent off for classing.

### **RESULTS, DISCUSSION AND ECONOMIC ANALYSIS**

As seen in Table 1, lint yields varied with a low of 495 lb/acre for DeltaPine 1549 B2XF to a high of 803 lb/acre for Fibermax 2484 B2F. Lint loan values averaged \$0.5599 /lb and ranged from a low of \$0.5115/lb for PhytoGen 495 W3RF to a high of \$0.5790/lb for Fibermax 2484 B2F. Gross Return/acre among varieties ranged from a high of \$569.30 for Fibermax 2484 B2F to a low of \$362.68 for DeltaPine 1549 B2XF, a difference of \$206.62. Lint turnout ranged from a low of 24.83% to a high of 42.78% for DeltaPine 1549 B2XF and DeltaPine 1646 B2XF, respectively. Micronaire values ranged from a low of 3.5 for DeltaPine 1219 B2XR to a high of 4.4 for PhytoGen 499 WRF. Staple averaged 36 across all varieties with a low of 33 for PhytoGen 495 W3RF and a high of 38 for DeltaPine 1646 B2XF, DeltaPine 1549 B2XF, and PhytoGen 444 WRF. The highest percent uniformity was observed for PhytoGen 444 WRF (82.3%) and Fibermax 2007 GLT had the lowest (79.9%). Strength values ranged from 27.6 g/tex for Fibermax 2484 B2F to 34.1 g/tex for PhytoGen 764 RF. Color grades were mostly 21's with 1 grading an 11, and 4 grading a 31. Leaf grades were moderate in this trial with most being 2's and 3's.

### **ACKNOWLEDGMENTS**

The authors would like to thank Mr. John Evridge for cooperating in this demonstration.

They would also like to thank the seed companies who donated the seed.

## 2016 Cotton Variety Trial

Producer: **John Evridge** Plant Date: 5/16/2016  
 Name of County: **GLASSCOCK** Harvest Date: 10/24/2016  
 Design: 8 row solid Herbicide: 32 oz RU & LI700,  
 Fertility: 87 Units-32-0-0, 10 gal-PeakAcid



Variety	Yield Per Acre		% Turnout		Loan Value	Lint Gross Return	Seed Gross Return	Color	Leaf	Staple	Mic	Strength	Unif	Gross Return (\$/acre)
	Lint	Seed	Lint	Seed										
FM 2484 B2F	803	1270	30.03%	47.54%	\$0.5590	\$448.62	\$120.69	21	2	35	4.2	27.6	80.0	\$569.30
ST 4946 GLB2	784	1275	32.08%	52.16%	\$0.5625	\$440.98	\$121.09	31	3	36	4.3	30.3	82.0	\$562.06
DP 1219 B2RF	773	1227	29.72%	47.20%	\$0.5690	\$439.64	\$116.60	21	1	37	3.5	32.2	79.9	\$556.24
PHY 764 RF	708	1212	28.56%	48.90%	\$0.5785	\$409.34	\$115.10	21	2	37	4.0	34.1	81.5	\$524.44
DG 2570 B2RF	732	1183	31.82%	51.42%	\$0.5600	\$410.08	\$112.39	21	2	35	4.3	30.1	81.1	\$522.47
NG 3406 B2XF	731	1161	31.38%	49.86%	\$0.5600	\$409.38	\$110.33	31	3	36	4.3	29.7	81.9	\$519.72
FM 2007 GLT	768	1099	37.26%	53.33%	\$0.5265	\$404.23	\$104.39	21	3	34	3.8	29.4	79.9	\$508.62
FM 2334 GLT	678	958	35.24%	49.78%	\$0.5780	\$391.88	\$90.98	21	1	37	4.2	31.0	81.8	\$482.86
PHY 444 WRF	627	842	33.46%	44.93%	\$0.5780	\$362.25	\$79.96	21	2	38	4.1	31.0	82.3	\$442.20
PHY 499 WRF	647	1019	31.92%	50.31%	\$0.5300	\$342.68	\$96.80	31	3	34	4.4	29.8	81.2	\$439.48
NG 4545 B2XF	607	966	29.62%	47.17%	\$0.5710	\$346.33	\$91.77	21	2	36	4.1	29.6	81.5	\$438.10
DP 1646 B2XF	666	513	42.78%	33.00%	\$0.5755	\$383.05	\$48.78	11	2	38	3.8	29.2	81.0	\$431.83
PHY 495 W3RF	634	993	33.56%	52.62%	\$0.5115	\$324.05	\$94.37	31	2	33	4.3	29.5	80.1	\$418.42
DP 1549 B2XF	495	803	24.83%	40.30%	\$0.5790	\$286.41	\$76.27	21	2	38	4.0	32.6	80.6	\$362.68
Average	689	1037	32.30%	47.75%	\$0.5599	\$385.64	\$98.54	-	-	36	4.1	30.4	81.1	\$484.17
Max.	803	1275	42.78%	53.33%	\$0.5790	\$448.62	\$121.09	-	-	38	4.4	34.1	82.3	\$569.30
Min.	495	513	24.83%	33.00%	\$0.5115	\$286.41	\$48.78	-	-	33	3.5	27.6	79.9	\$362.68

Grab samples ginned at the Texas A&M AgriLife Research and Extension Center, Lubbock. Quality analysis at the FBRI, Lubbock.

Gross Seed Return based on \$190/ton

For Questions Contact: Brad Easterling or Dr. David Drake (325)653-4576



# Result Demonstration Report

## IRRIGATED COTTON VARIETY DEMONSTRATION

Cooperator: Nathan Halfmann

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties, Garden City, Texas  
Jacob McKillip, CEA-AG, Glasscock County, Garden City, Texas

Glasscock County

### **SUMMARY**

Fourteen cotton varieties were compared in strip plots under similar field conditions. Lint yields varied with a low of 888 lb/acre (PHY 499 WRF) to a high of 1375 lb/acre (PHY 444 WRF). Lint loan values averaged \$0.5370 /lb and ranged from a low of \$0.4875/lb (DG 2570 B2RF) to a high of \$0.5725/lb (PHY 444 WRF). Gross Return/acre among varieties ranged from a high of \$956.27 (PHY 444 WRF) to a low of \$578.30 (PHY 499 WRF), a difference of \$377.97.

### **PROBLEMS**

Area cotton producers are continually searching for a cotton variety that will increase net profits through increased yield and fiber qualities. Higher strength and longer staple are the primary characteristics they are looking for as well as varieties that are tighter in the boll.

### **OBJECTIVE**

To find a cotton variety that will increase net profit with an increase in yield and fiber qualities. These varieties must also fit the limited irrigation of the St. Lawrence cotton growing region.

### **MATERIALS AND METHODS**

The field used for this test was drip irrigated. The varieties were planted in 12 row plots in a solid pattern on 40" spacing on May 17<sup>th</sup>. The seeding rate was approximately 27,500 seeds/ac or 2.00 sd/ft. The plots received approximately 14 in. of rain throughout the growing season. Irrigation capacity for this field is about 2.0 gal/min. They were stripper harvested on October 21<sup>st</sup> and weighed in a boll buggy on platform scales. Samples were ginned at the Lubbock Extension and Research Center, and fiber samples were sent off for classing.

### **RESULTS, DISCUSSION AND ECONOMIC ANALYSIS**

As seen in Table 1, lint yields varied with a low of 888 lb/acre for PhytoGen 499 WRF to a high of 1375 lb/acre for PhytoGen 444 WRF. Lint loan values averaged \$0.5370 /lb and ranged from a low of \$0.4875/lb for DynaGro 2570 B2RF to a high of \$0.5725/lb for PhytoGen 444 WRF. Gross Return/acre among varieties ranged from a high of \$956.27 for PhytoGen 444 WRF to a low of \$578.30 for PhytoGen 499 WRF, a difference of \$377.97. Lint turnout ranged from a low of 31.31% to a high of 40.21% for Fibermax 2007 GLT and PhytoGen 444 WRF, respectively. Micronaire values ranged from a low of 4.0 for PhytoGen 444 WRF to a high of 5.1 for DynaGro 2570 B2RF. Staple averaged 35 across all varieties with a low of 32 for DeltaPine 1549 B2XF and a high of 38 for Fibermax 2334 GLT, and PhytoGen 444 WRF. The highest percent uniformity was observed for PhytoGen 764 RF (82.7%) and Stoneville 5115 GLT had the lowest (79.4%). Strength values ranged from 28.9 g/tex for Stoneville 5115 GLT to 38.5 g/tex for PhytoGen 764 RF. Color grades were mostly 31's with 3 grading a 21, all very good color grades. This was potentially our worse trial this year for leaf grades, I am not sure why they were different here than elsewhere, stripping conditions were fine and it was ready to be harvested. About one-third of the leaf grades went 4 or 5.

### **ACKNOWLEDGMENTS**

The authors would like to thank Mr. Nathan Halfmann for cooperating in this demonstration.

They would also like to thank the seed companies who donated the seed.

## 2016 Cotton Variety Trial

**Producer:** Nathan Halfmann  
**Name of County:** GLASSCOCK  
**Design:** 12 row solid

**Plant Date:** 5/17/2016  
**Harvest Date:** 10/21/2016  
**Herbicide:**  
**Fertility:**



Variety	Yield Per Acre		% Turnout		Loan Value	Lint Gross Return	Seed Gross Return	Color	Leaf	Staple	Mic	Strength	Unif	Gross Return (\$/acre)
	Lint	Seed	Lint	Seed										
PHY 444 WRF	1375	1778	40.21%	51.98%	\$0.5725	\$787.37	\$168.90	21	3	38	4.0	31.6	82.1	\$956.27
PHY 333 WRF	1288	1812	34.24%	48.18%	\$0.5380	\$692.76	\$172.15	31	4	35	4.9	29.1	81.6	\$864.91
DP 1646 B2XF	1204	1565	35.83%	46.58%	\$0.5675	\$683.10	\$148.67	21	3	37	4.8	31.0	81.4	\$831.77
ST 4946 GLB2	1246	1773	34.58%	49.21%	\$0.5110	\$636.84	\$168.46	31	3	34	5.0	33.5	81.5	\$805.30
FM 2334 GLT	1177	1565	34.89%	46.39%	\$0.5525	\$650.36	\$148.68	31	4	38	4.4	32.5	82.6	\$799.04
DP 1549 B2RF	1282	1662	36.46%	47.28%	\$0.4885	\$626.18	\$157.89	31	3	32	4.9	29.8	79.7	\$784.07
PHY 764 WRF	1084	1597	35.02%	51.59%	\$0.5660	\$613.71	\$151.72	31	3	36	4.1	38.5	82.7	\$765.43
DG 3635 B2XF	1106	1580	34.76%	49.66%	\$0.5515	\$609.88	\$150.10	31	3	35	4.5	30.8	81.4	\$759.97
DG 2570 B2RF	1162	1777	31.97%	48.89%	\$0.4875	\$566.54	\$168.81	31	3	33	5.1	29.8	80.5	\$735.36
PHY 495 W3RF	1103	1544	33.02%	46.24%	\$0.5295	\$584.06	\$146.72	31	4	34	4.8	32.3	82.2	\$730.79
ST 5115 GLT	1089	1657	31.98%	48.63%	\$0.5245	\$571.43	\$157.39	21	3	34	4.6	28.9	79.4	\$728.82
FM 2007 GLT	1004	1597	31.31%	49.81%	\$0.5495	\$551.73	\$151.74	31	4	37	4.7	30.4	81.5	\$703.47
ST 4949 GLT	889	1245	31.58%	44.23%	\$0.5665	\$503.63	\$118.28	31	2	36	4.4	30.1	80.1	\$621.91
PHY 499 WRF	888	1298	32.90%	48.11%	\$0.5125	\$454.98	\$123.32	31	5	34	4.9	31.0	81.8	\$578.30
Average	1136	1604	34.20%	48.34%	\$0.5370	\$609.47	\$152.35	-	-	35	4.7	31.4	81.3	\$761.81
Max.	1375	1812	40.21%	51.98%	\$0.5725	\$787.37	\$172.15	-	-	38	5.1	38.5	82.7	\$956.27
Min.	888	1245	31.31%	44.23%	\$0.4875	\$454.98	\$118.28	-	-	32	4.0	28.9	79.4	\$578.30

Grab samples ginned at the Texas A&M AgriLife Research and Extension Center, Lubbock. Quality analysis at the FBRI, Lubbock.

Gross Seed Return based on \$190/ton For Questions Contact: Brad Easterling or Dr. David Drake (325)653-4576

# Result Demonstration Report

## IRRIGATED COTTON VARIETY DEMONSTRATION

Cooperator: Phillip Bales

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties, Garden City, Texas  
Chase McPhaul, Reagan County, Big Lake, Texas

Reagan County

### **SUMMARY**

Fifteen cotton varieties were compared in strip plots under similar field conditions. Lint yields varied with a low of 665 lbs/acre (ST 4949 GLT) to a high of 1225 lbs/acre (PHY 495 W3RF). Lint loan values averaged \$0.5076 /lb and ranged from a low of \$0.4630 /lb (DP 1522 B2XF and PHY 222 WRF) to a high of \$0.5485 /lb (PHY 444 WRF). Gross Return/acre among varieties ranged from a high of \$718.70 (PHY 495 W3RF) to a low of \$397.65 (ST 4949 GLT), a difference of \$411.42.

### **PROBLEMS**

Area cotton producers are continually searching for a cotton variety that will increase net profits through increased yield and fiber qualities. Higher strength and longer staple are the primary characteristics they are looking for as well as varieties that are tighter in the boll.

### **OBJECTIVE**

To find a cotton variety that will increase net profit with an increase in yield and fiber qualities. These varieties must also fit the limited irrigation of the St. Lawrence cotton growing region.

### **MATERIALS AND METHODS**

The field used for this test was drip irrigated. The varieties were planted in 6 row plots in a solid pattern on 40" spacing on June 7<sup>th</sup>. The plots received 6.4 inches of rain and 1.8 inches irrigation prior to planting. They received about 6 inches of rain after planting, none in July or until August 28<sup>th</sup>. They received 4.7 inches of irrigation. There was about 15 gallons of 10-25-0-5 or about 170lbs knifed in beds before planting and about 20 gallons of 32-0-0, including the 10-25-0-5 works out to about 89 units N, 42.5 units P, 0 units K, 8.5 units S. This field was sprayed 2 times with Roundup at 40ozs, with Helfire and ammonia sulfate. Sprayed 20ozs ethephon prior to harvest and frost. This field has about 140gpm water for 80 acres. They were not stripper harvested until December 19<sup>th</sup>. Varieties were

then weighed in a boll buggy on platform scales. Samples were ginned and fiber samples were sent off for classing.

### **RESULTS, DISCUSSION AND ECONOMIC ANALYSIS**

As seen in Table 1, lint yields varied with a low of 665 lb/acre for Stoneville 4949 GLT to a high of 1225 lb/acre for PhytoGen 495 W3RF. Lint loan values averaged \$0.5076 /lb and ranged from a low of \$0.4630 /lb for DeltaPine 1522 B2XF and PhytoGen 222 WRF to a high of \$0.5485 /lb for PhytoGen 444 WRF. Gross Return/acre among varieties ranged from a high of \$718.70 for PhytoGen 495 W3RF to a low of \$397.65 Stoneville 4949 GLT, a difference of \$411.42. Lint turnout ranged from a low of 26.55% to a high of 44.46% for DeltaPine 1522 B2XF and PhytoGen 495 W3RF, respectively. Micronaire values ranged from a low of 4.2 for NexGen 3406 B2XF, PhytoGen 444 WRF, Fibermax 2334 GLT, Fibermax 1830 GLT, and Stoneville 4949 GLT, to a high of 4.8 for DeltaPine 1522 B2XF. Staple averaged 35 across all varieties with a low of 32 for NexGen 3406 B2XF and Stoneville 4949 GLT and a high of 37 for PhytoGen 444 WRF. The highest percent uniformity was observed for PhytoGen 333 WRF (81.7%) and DeltaPine 1219 B2RF had the lowest (78.7%). Strength values ranged from 26.7 g/tex for NexGen 3406 B2XF to 29.9 g/tex for Fibermax 2334 GLT. Color grades were all 41's and 51's. This is to be expected with the amount of late season rain that this cotton received will still in the field. Leaf was higher in this plot than most others with the DeltaPine 1522 B2XF and PhytoGen 222 WRF both grading 7. This is the one of the reasons for the lower loan values. However, Fibermax 2334 GLT still had a 2 leaf and PhytoGen 444 WRF, DynaGro 3635 B2XF, DeltaPine 1219 B2RF, and Fibermax 1830 GLT all had a 3. Lint stringout ratings were taken prior to harvest, however, there were very few differences between varieties. Fibermax 1830 GLT and PhytoGen 222 WRF stood out as being the tightest in the bur with the least amount of lint on the ground. These data indicate that substantial differences can be obtained in terms of Gross Return/acre due to variety and technology selection.

### **ACKNOWLEDGMENTS**

The authors would like to thank Mr. Phillip Bales for cooperating in this demonstration.

They would also like to thank the seed companies who donated the seed.

## 2016 Cotton Variety Trial

Producer:	<b>Phillip Bales</b>	Plant Date:	6/7/2017
Name of County:	<b>Reagan</b>	Harvest Date:	12/19/2016
Design:	6 rows, solid	Herbicide:	80 oz. RU, Hellfire, AMS
		Fertility:	15 gal 10-25-0-5, 20 gal 32-0-0



Variety	Yield Per Acre		% Turnout		Loan Value	Lint Gross Return	Seed Gross Return	Color	Leaf	Staple	Mic	Strength	Unif	Gross Return (\$/acre)
	Lint	Seed	Lint	Seed										
PHY 495 W3RF	1225	1094	44.46%	39.70%	\$0.4930	\$603.86	\$114.83	41	5	34	4.5	27.5	79.7	\$718.70
NG 3406 B2XF	1090	1492	41.16%	56.34%	\$0.4950	\$539.74	\$156.71	41	4	33	4.2	26.7	80.3	\$696.45
FM 1911 GLT	974	1277	36.11%	47.35%	\$0.5415	\$527.19	\$134.04	41	4	36	4.5	29.0	81.2	\$661.23
PHY 444 WRF	872	1184	31.64%	42.98%	\$0.5485	\$478.13	\$124.32	41	3	37	4.2	28.2	81.2	\$602.45
PHY 333 WRF	941	1163	33.17%	41.00%	\$0.4755	\$447.55	\$122.15	51	6	35	4.4	27.6	81.7	\$569.70
DG 3635 B2XF	807	1093	28.33%	38.35%	\$0.5245	\$423.27	\$114.72	41	3	34	4.4	28.6	80.5	\$538.00
FM 2334 GLT	765	1066	32.64%	45.49%	\$0.5480	\$419.08	\$111.89	41	2	36	4.2	29.9	81.4	\$530.98
DG 3385 B2XF	815	1152	28.60%	40.44%	\$0.5010	\$408.30	\$120.98	41	5	34	4.4	29.0	80.7	\$529.28
DP 1219 B2RF	759	1038	29.98%	41.00%	\$0.5375	\$407.94	\$108.97	41	3	36	4.3	29.1	78.7	\$516.91
DP 1612 B2XF	751	1117	29.82%	44.33%	\$0.4830	\$362.86	\$117.26	51	5	34	4.7	27.7	80.1	\$480.12
FM 1830 GLT	644	957	28.34%	42.14%	\$0.5475	\$352.56	\$100.53	41	3	36	4.2	27.8	80.0	\$453.09
ST 4848 GLT	690	963	29.74%	41.53%	\$0.5050	\$348.29	\$101.14	51	4	35	4.6	26.8	80.2	\$449.43
DP 1522 B2XF	706	1008	26.55%	37.88%	\$0.4630	\$327.03	\$105.84	51	7	35	4.8	28.3	81.6	\$432.87
PHY 222 WRF	662	1019	28.25%	43.49%	\$0.4630	\$306.40	\$106.99	51	7	35	4.5	28.1	80.4	\$413.39
ST 4949 GLT	665	701	29.56%	31.16%	\$0.4875	\$324.08	\$73.57	41	4	33	4.2	27.2	79.9	\$397.65
Average	824	1088	31.89%	42.21%	\$0.5076	\$418.42	\$114.26	-	-	35	4.4	28.1	80.5	\$532.68
Max.	1225	1492	44.46%	56.34%	\$0.5485	\$603.86	\$156.71	-	-	37	4.8	29.9	81.7	\$718.70
Min.	644	701	26.55%	31.16%	\$0.4630	\$306.40	\$73.57	-	-	33	4.2	26.7	78.7	\$397.65

Grab samples ginned at the Texas A&M AgriLife Research and Extension Center, Lubbock. Quality analysis at the FBRI, Lubbock.

Gross Seed Return based on \$190/ton

For Questions Contact: Brad Easterling or Dr. David Drake (325)653-4576

# Result Demonstration Report

## DRY LAND COTTON VARIETY DEMONSTRATION

Cooperator: Russell Halfmann

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties, Garden City, Texas  
Jacob McKillip, CEA-AG, Glasscock County, Garden City, Texas

Glasscock County

### **SUMMARY**

Nineteen cotton varieties were compared in strip plots under similar field conditions. Lint yields varied with a low of 601 lb/acre (NG 4545 B2XF) to a high of 749 lb/acre (DP 1549 B2XF). Lint loan values averaged \$0.5249 /lb and ranged from a low of \$0.4660/lb (NG 4545 B2XF) to a high of \$0.5785/lb (PHY 444 WRF). Gross Return/acre among varieties ranged from a high of \$511.30 (DP 1549 B2XF) to a low of \$365.81 (NG 4545 B2XF), a difference of \$145.49.

### **PROBLEMS**

Area cotton producers are continually searching for a cotton variety that will increase net profits through increased yield and fiber qualities. Higher strength and longer staple are the primary characteristics they are looking for as well as varieties that are tighter in the boll.

### **OBJECTIVE**

To find a cotton variety that will increase net profit with an increase in yield and fiber qualities. These varieties must also fit the limited irrigation of the St. Lawrence cotton growing region.

### **MATERIALS AND METHODS**

The field used for this test was drip irrigated. The varieties were planted in 12 row plots on a 2 X 1 skip row pattern on 40" spacing on May 28<sup>th</sup>. However, we had a planter problem and did not notice until the end of the trial. For this reason, the producer came back and plowed out the outside two rows of each variety, making each variety 10 rows/plot with 3 blanks between varieties except for FM 2334 which was 12 rows wide. The seeding rate was approximately 39,000 seeds/ac or 3.00 sd/ft. The plots received approximately 10 in. of rain throughout the growing season. I never received a total amount of fertilizer, if any that was applied. They were stripper harvested on October 10<sup>th</sup> and weighed in a boll buggy on platform scales. Samples were ginned at the Lubbock Extension and Research Center, and fiber samples were sent off for classing.

## **RESULTS, DISCUSSION AND ECONOMIC ANALYSIS**

As seen in Table 1, lint yields varied with a low of 601 lb/acre for NexGen 4545 B2RX to a high of 749 lb/acre for DeltaPine 1549 B2XF. Lint loan values averaged \$0.5249 /lb and ranged from a low of \$0.4660/lb for NexGen 4545 B2RX to a high of \$0.5785/lb for PhytoGen 444 WRF. Gross Return/acre among varieties ranged from a high of \$511.30 for DeltaPine 1549 to a low of \$365.81 for NexGen 4545 B2RX, a difference of \$145.49. Lint turnout ranged from a low of 21.40% to a high of 31.16% for Fibermax 2484 B2F and Stoneville 4949 GLT, respectively. Micronaire values ranged from a low of 4.2 for PhytoGen 444 WRF to a high of 5.3 for NexGen 4545 B2RX. Staple averaged 34 across all varieties with a low of 33 for eight varieties and a high of 37 for Fibermax 2484 B2F, DeltaPine 1646 B2XF and PhytoGen 444 WRF. The highest percent uniformity was observed for PhytoGen 764 RF (82.2%) and PhytoGen 222 WRF had the lowest (79.9%). Strength values ranged from 27.7 g/tex for Stoneville 4949 GLT to 34.4 g/tex for PhytoGen 764 RF. Color grades were all 21's and 31's.

## **ACKNOWLEDGMENTS**

The authors would like to thank Mr. Russell Halfmann for cooperating in this demonstration.

They would also like to thank the seed companies who donated the seed.



## 2016 Cotton Variety Trial

**Russell**  
 Producer: **Halfmann** Plant Date: 5/28/2016  
 Name of County: **GLASSCOCK** Harvest Date: 10/10/2016  
 Design: 10 rows 2 X 1 Herbicide:  
 Fertility:



Variety	Yield Per Acre		% Turnout		Loan Value	Lint Gross Return	Seed Gross Return	Color	Leaf	Staple	Mic	Strength	Unif	Gross Return (\$/acre)
	Lint	Seed	Lint	Seed										
DP 1549 B2XF	749	1026	30.23%	41.42%	\$0.5525	\$413.81	\$97.49	31	2	35	4.7	29.2	80.2	\$511.30
DG 3635 B2XF	742	1081	28.03%	40.83%	\$0.5370	\$398.55	\$102.70	21	2	34	4.8	30.2	80.2	\$501.25
PHY 495 W3RF	751	1069	28.87%	41.08%	\$0.5140	\$386.13	\$101.55	31	3	33	4.9	31.4	80.8	\$487.68
ST 4949 GLT	744	986	31.16%	41.32%	\$0.5255	\$390.75	\$93.68	31	4	34	4.9	27.7	82.0	\$484.43
FM 1911 GLT	693	1010	29.60%	43.15%	\$0.5330	\$369.28	\$95.96	31	2	35	5.0	31.8	81.7	\$465.23
DP 1646 B2XF	660	849	30.87%	39.75%	\$0.5730	\$377.93	\$80.67	21	2	37	4.8	29.9	81.4	\$458.60
FM 2007 GLT	643	1003	26.82%	41.84%	\$0.5615	\$361.13	\$95.30	21	2	35	4.8	32.1	81.1	\$456.43
PHY 444 WRF	634	936	26.97%	39.78%	\$0.5785	\$367.02	\$88.90	21	2	37	4.2	31.4	82.1	\$455.92
FM 2334 GLT	619	1011	28.32%	38.53%	\$0.5450	\$337.57	\$96.08	31	1	36	5.0	32.0	81.5	\$433.65
NG 3406 B2XF	677	955	27.21%	38.38%	\$0.4875	\$330.11	\$90.74	31	3	33	5.2	29.3	81.5	\$420.86
DG 2570 B2RF	639	1006	25.32%	39.88%	\$0.4945	\$315.85	\$95.58	21	2	33	5.1	30.0	80.9	\$411.43
ST 5115 GLT	606	980	26.40%	42.71%	\$0.5155	\$312.37	\$93.13	21	1	33	4.6	29.1	80.0	\$405.50
ST 4946 GLB2	643	947	26.45%	38.95%	\$0.4820	\$309.98	\$89.98	31	4	33	5.2	31.5	81.6	\$399.96
DG 3385 B2XF	617	908	28.15%	41.41%	\$0.4925	\$304.08	\$86.28	21	2	33	5.1	29.0	80.5	\$390.36
ST 4848 GLT	582	863	28.01%	41.50%	\$0.5290	\$308.12	\$81.99	31	3	35	5.2	30.1	82.2	\$390.12
PHY 222 WRF	624	895	29.20%	41.88%	\$0.4800	\$299.44	\$84.99	31	3	33	5.2	29.5	79.9	\$384.43
PHY 764 RF	572	757	29.76%	39.44%	\$0.5380	\$307.51	\$71.95	31	5	36	4.4	34.4	82.2	\$379.46
FM 2484 B2F	515	827	21.40%	34.34%	\$0.5690	\$293.28	\$78.59	21	3	37	4.4	32.9	81.6	\$371.88
NG 4545 B2XF	601	901	27.42%	41.06%	\$0.4660	\$280.25	\$85.55	31	4	33	5.3	30.4	81.0	\$365.81
Average	648	948	27.90%	40.38%	\$0.5249	\$340.17	\$90.06	-	-	34	4.9	30.6	81.2	\$430.23
Max.	751	1081	31.16%	43.15%	\$0.5785	\$413.81	\$102.70	-	-	37	5.3	34.4	82.2	\$511.30
Min.	515	757	21.40%	34.34%	\$0.4660	\$280.25	\$71.95	-	-	33	4.2	27.7	79.9	\$365.81

Grab samples ginned at the Texas A&M AgriLife Research and Extension Center, Lubbock. Quality analysis at the FBRI, Lubbock.

Gross Seed Return based on \$190/ton

For Questions Contact: Brad Easterling or Dr. David Drake (325)653-4576

## St. Lawrence Multi-year Irrigated Variety Trial Yields 2013-2016

Variety	Irrigated											
	4-Year			3-Year			2-Year			2016		
	# Trials	lbs/ac	\$/ac	# Trials	lbs/ac	\$/ac	# Trials	lbs/ac	\$/ac	# Trials	lbs/ac	\$/ac
PHY 499 WRF	9	1287	\$905.00	5	1110	\$725.53	4	1114	\$732.83	3	1133	\$770.39
ST 4946 GLB2	11	1293	\$893.30	7	1116	\$728.28	5	1216	\$803.10	3	1383	\$928.23
DP 1219 B2RF	10	1220	\$889.37	6	1055	\$722.60	4	1098	\$760.88	3	1118	\$780.88
DG 2570 B2RF	9	1223	\$858.18	6	1054	\$661.72	4	1064	\$708.68	3	1252	\$839.47
FM 2484 B2F	9	1180	\$848.17	6	1020	\$711.42	4	1127	\$796.31	2	1424	\$1,009.93
FM 2334 GLT				7	1077	\$732.51	6	1072	\$731.85	4	1515	\$766.46
PHY 333 WRF				6	990	\$627.26	4	1022	\$643.89	2	1114	\$717.30
PHY 444 WRF							5	1225	\$850.07	4	1249	\$871.80
DP 1549 B2XF							4	1230	\$824.50	3	1314	\$882.23
PHY 495 W3RF							5	1230	\$797.32	4	1250	\$823.22
NG 3406 B2XF							4	1170	\$773.65	3	1314	\$882.37
FM 2007 GLT							5	1045	\$737.32	3	1157	\$814.29
DG 3635 B2XF							3	846	\$560.89	2	956	\$648.98
DP 1522 B2XF							2	875	\$548.83	1	706	\$432.87
ST 5115 GLT										2	1582	\$1,098.87
DG 3385 B2XF										2	1582	\$1,049.12
ST 4848 GLT										2	1353	\$889.49
DP 1646 B2XF										3	1232	\$847.20
NG 4545 B2XF										3	1125	\$772.59
FM 1911 GLT										1	974	\$661.23
PHY 764 WRF										2	896	\$644.94
PHY 222 WRF										2	987	\$634.29
ST 4949 GLT										2	777	\$509.78
DP 1612 B2XF										1	751	\$480.12
FM 1830 GLT										1	644	\$453.09

Average		1241	\$878.80		1060	\$701.33		1095	\$733.58		1152	\$768.36
Minimum		1180	\$848.17		990	\$627.26		846	\$548.83		644	\$432.87
Maximum		1293	\$905.00		1116	\$732.51		1230	\$850.07		1582	\$1,098.87

## St. Lawrence Multi-year Irrigated Variety Trial Rankings 2013-2016

Irrigated	2013				2014		2015		2016				13-16	# Trials
	Evridge	Egg.	Fuchs	Jost	Ri. Half	Bales	Fuchs	Bales	Evridge	N. Half.	Egg.	Bales	Avg	
PHY 444 WRF							2		9	1	3	4	3.80	5
DP 1044 B2RF	6	2	2	6									4.00	4
NG 3406 B2XF								4	6		6	2	4.50	4
ST 4946 GLB2	2	1	4	2	15	7	5	1	2	4	15		5.27	11
DP 1219 B2RF	1	5	1	15	1	2	6		3		11	9	5.40	10
PHY 333 WRF					7	5	8	6		2		5	5.50	6
FM 2334 GLT					3		3	2	8	5	13	7	5.86	7
FM 2484 B2F	10	7	5		9	14	4	7	1		5		6.89	9
DP 1359 B2RF	5	4	8	11									7.00	4
DG 2570 B2RF	3		3	7	12	4		15	5	9	12		7.78	9
FM 2007 GLT							1	5	7	12	14		7.80	5
PHY 375 WRF	8	3	13	8									8.00	4
PHY 499 WRF	4	6	6	3	10		13		10	14	8		8.22	9
ATX EDGE B2RF	11	8	9	5									8.25	4
DP 1549 B2XF							12		14	6	2		8.50	4
PHY 495 W3RF							9		13	10	10	1	8.60	5
PHY 339 WRF	9	9	11	13	5	13	7	11					9.75	8
FM 1944 GLB2	12	11	10	10	6	12							10.17	6
ST 4747 GLB2					8	10	14	9					10.25	4
PHY 367 WRF	14	10	12	12									12.00	4
FM 9250 GL				1									1.00	1
FM 2011 GT				4									4.00	1
DG 2595 B2RF				9									9.00	1
ST 6448 GLB2				14									14.00	1
NG 5315 B2RF					4	1		16					7.00	3
DP 1646 B2XF									12	3	9		8.00	3
DG 3635 B2XF								12		8		6	8.67	3
NG 1511 B2RF					11	8		8					9.00	3
NG 3306 B2RF					13	6		10					9.67	3
FM 1830 GLT					16	11						11	12.67	3
DG 3385 B2XF											1	8	4.50	2
DP 1321 B2RF					2	9							5.50	2
PHY 764 WRF									4	7			5.50	2
ST 5115 GLT										11	4		7.50	2
DG 2285 B2RF					14	3							8.50	2
ST 4848 GLT											7	12	9.50	2
ATX NITRO B2RF	13		7										10.00	2
DP 1522 B2XF							10					13	11.50	2
FM 1900 GLT							11	14					12.50	2
NG 4545 B2XF									11		16		13.50	2
ST 4949 GLT										13		15	14.00	2
PHY 222 WRF											17	14	15.50	2
NG 4111 RF								3					3.00	1
FM 1911 GLT												3	3.00	1
FM 2989 B2RF	7												7.00	1
DP 1612 B2XF												10	10.00	1
NG 5007 B2XF								13					13.00	1
FM 9170 B2RF						15							15.00	1
DG 2355 B2RF								17					17.00	1

# of Varieties in Trial 14 11 13 15 16 15 14 17 14 14 17 15

12 Trials - 175 entries

## St. Lawrence Multi-year Dryland Variety Trial Yields 2014-2016

Variety	Dryland								
	3-Year			2-Year			2016		
	# Trials	lbs/ac	\$/ac	# Trials	lbs/ac	\$/ac	# Trials	lbs/ac	\$/ac
FM 2484 B2F	4	335	\$248.78	3	409	\$302.40	2	457	\$347.09
DP 1219 B2RF	3	264	\$237.39	2	352	\$237.39	1	375	\$260.12
FM 2334 GLT	4	324	\$226.37	3	412	\$287.28	2	493	\$346.96
FM 1830 GLT	3	227	\$155.58	2	297	\$202.03	1	314	\$222.04
PHY 444 WRF				3	451	\$317.28	2	501	\$360.26
PHY 222 WRF				3	481	\$309.63	2	504	\$325.02
PHY 495 W3RF				3	458	\$285.83	1	751	\$487.68
DP 1549 B2XF				3	437	\$284.91	1	749	\$511.30
DG 3635 B2XF				3	430	\$275.59	1	742	\$501.25
NG 3406 B2XF				5	431	\$268.90	2	540	\$338.57
FM 2007 GLT				5	391	\$267.96	2	496	\$354.42
DG 2570 B2RF				5	417	\$265.52	2	532	\$344.82
ST 4946 GLB2				4	387	\$242.07	2	517	\$328.86
PHY 333 WRF				4	335	\$210.06	1	370	\$245.84
DP 1522 B2XF				3	303	\$182.47	1	282	\$181.27
ST 4949 GLT							1	643	\$484.43
DP 1649 B2XF							1	660	\$458.60
ST 4848 GLT							1	582	\$390.12
PHY 764 WRF							1	572	\$379.46
NG 4545 B2XF							1	601	\$365.81
FM 1911 GLT							2	531	\$362.46
ST 5115 GLT							2	488	\$331.08
DG 3385 B2XF							2	485	\$314.16
DP 1612 B2XF							1	283	\$203.42

Average		288	\$217.03		399	\$262.62		520	\$351.88
Minimum		227	\$155.58		297	\$182.47		282	\$181.27
Maximum		335	\$248.78		481	\$317.28		751	\$511.30

## St. Lawrence Multi-year Dryland Variety Trial Rankings 2014-2016

Dryland	2014	2015			2016		14-16	# Trials
	Ru. Half.	Hoelscher	G. Half.	Ru. Half.	Ru. Half.	A. Hoel.	Average	
PHY 499 WRF	4		4	1			3.00	3
PHY 495 W3RF			5	3	3		3.67	3
DP 1549 B2XF			7	5	1		4.33	3
PHY 444 WRF				2	8	4	4.67	3
DP 1219 B2RF	5			7		6	6.00	3
NG 3406 B2XF		1	3	14	10	10	7.60	5
DG 2570 B2RF		2	6	9	11	2	6.00	5
FM 2334 GLT	17		1		9	5	8.00	4
DG 3635 B2XF			11	10	2		7.67	3
FM 2007 GLT		7	2	8	7	11	7.00	5
PHY 333 WRF		4	9	12		12	9.25	4
FM 2484 B2F	1			6	18	1	6.50	4
PHY 222 WRF		3			16	3	7.33	3
ST 4946 GLB2			13	11	13	8	11.25	4
FM 1900 GLT		9	8	15			10.67	3
FM 1830 GLT	6			13		14	11.00	3
DP 1522 B2XF		8		19		16	14.33	3
ST 4747 GLB2		6	12	18			12.00	3
DP 1044 B2RF	2						2.00	1
FM 1944 GLB2	3						3.00	1
ST 4949 GLT					4		4.00	1
DG 2355 B2RF		5					5.00	1
FM 1911 GLT					5	7	6.00	2
DP 1646 B2XF					6		6.00	1
DP 1454 NR B2RF	7						7.00	1
DP 1359 B2RF	8						8.00	1
DP 1252 B2RF	9						9.00	1
NG 5007 B2XF			15	4			9.50	2
FM 8270 GLB2	10						10.00	1
NG 3306 B2RF		10					10.00	1
NG 1511 B2RF	11						11.00	1
PHY 367 WRF	12						12.00	1
DG 3385 B2XF					14	13	13.50	2
ST 5115 GLT					12	9	10.50	2
DP 1410 B2RF	13						13.00	1
NG 5315 B2RF			10	17			13.50	2
DP 1212 B2RF	14						14.00	1
PHY 339 WRF			14	16			15.00	2
DP 1321 B2RF	15						15.00	1
DP 1612 B2XF						15	15.00	1
ST 4848 GLT					15		15.00	1
FM 2989 B2RF	16						16.00	1
PHY 764 WRF					17		17.00	1
NG 4545 B2XF					19		19.00	1

# of Varieties in Trial

17

10

15

19

19

16

6 Trials- 96 entries



## Result Demonstration Report

### EVALUATION OF COTTON VARIETIES

#### COOPERATORS:

Darrell Halfmann, Jerry Hoelscher, Chris Matschek

#### COORDINATORS

Brad Easterling, Extension Agent - IPM, Glasscock, Reagan, Upton Counties

Jacob McKillip, County Extension Agent - Agriculture, Glasscock County

Chase McPhaul, County Extension Agent -Agriculture, Reagan County

Raymond Quigg, County Extension Agent -Agriculture, Upton County

Glasscock, Upton Counties

#### OBJECTIVE

To evaluate the cotton varieties which are or could potentially be commercially available to producers.

#### MATERIALS AND METHODS

Cotton varieties are provided from the major seed companies to evaluate for yield in our production area. These projects are planted, monitored during growing season, and then harvested for yield data.

## **RESULTS & DISCUSSION**

The following pages contain three variety demonstrations. All three demonstrations were Bayer APT Trials established at the farms of Darrell Halfmann, Jerry Hoelscher, and Chris Matschek.

## **ACKNOWLEDGMENTS**

Thank you to all the cooperators and to the seed companies for providing the seed and financial support.



# APT Trial Report

## BRAD EASTERLING



2016

Sales Contact Noble Laminack  
 Phone 325-716-8839  
 Email Noble.Laminack@bayer.com

State TX County Glasscock  
 Irrigated Yes Planting Date 6/7/2016  
 Soil Type silty clay loam Harvest Date 11/17/2016

Variety	Yield	Lint %	Mic	Length	Strength	Unif	Loan Value	Value/A	Height (In)
FM 1900GLT	1226	0.32	4.6	1.21	33.6	83.2	55.35	\$679	20.5
ST 4747GLB2	1226	0.31	4.8	1.18	28.5	82.3	50.80	\$623	19.3
ST 4946GLB2	1218	0.32	5.0	1.12	28.4	80.9	52.30	\$637	19.7
FM 1830GLT	1210	0.35	4.6	1.23	32.6	83.3	55.35	\$670	18.8
FM 2334GLT	1206	0.34	4.5	1.19	32.2	82.6	55.25	\$666	20.0
FM 2007GLT	1146	0.31	4.4	1.21	28.9	81.8	54.80	\$628	19.1
ST 4949GLT	1131	0.34	4.5	1.09	27.2	80.6	53.70	\$607	24.6
ST 5115GLT	1099	0.32	4.6	1.14	30.1	80.4	56.85	\$625	20.9
FM 1911GLT	1098	0.33	4.8	1.15	32.5	83.2	55.25	\$606	17.1
FM 1953GLTP	1071	0.31	4.8	1.15	30.5	81.8	54.95	\$589	18.7
ST 4848GLT	1064	0.32	4.9	1.17	29.6	82.2	54.80	\$583	24.0
Trial Average:	1154	0.32	4.7	1.17	30.4	82.0	54.49	\$628	20.2





# APT Trial Report

## BRAD EASTERLING



2016

Sales Contact Noble Laminack  
 Phone 325-716-8839  
 Email Noble.Laminack@bayer.com

State TX County Midland  
 Irrigated No Planting Date 6/10/2016  
 Soil Type silty clay loam Harvest Date 11/21/2016

Variety	Yield	Lint %	Mic	Length	Strength	Unif	Loan Value	Value/A	Height (In)
FM 2007GLT	890	0.30	4.5	1.18	30.2	82.0	55.10	\$490	17.8
FM 1900GLT	880	0.32	4.5	1.09	27.2	80.4	53.70	\$472	19.1
ST 4946GLB2	878	0.32	4.7	1.16	28.7	81.6	54.70	\$480	22.3
FM 2334GLT	871	0.32	4.9	1.11	29.0	81.0	54.65	\$476	18.5
ST 5115GLT	869	0.32	4.9	1.17	30.3	80.6	54.45	\$473	18.8
FM 1911GLT	851	0.33	4.8	1.18	30.9	81.9	54.95	\$468	17.9
ST 4747GLB2	811	0.31	4.9	1.08	27.3	80.4	53.70	\$436	26.1
FM 1830GLT	779	0.32	4.9	1.16	31.0	81.4	55.10	\$429	16.1
ST 4848GLT	743	0.35	4.6	1.14	29.3	79.4	55.90	\$416	22.3
ST 4949GLT	740	0.30	4.7	1.16	27.8	80.6	54.70	\$405	17.5
Trial Average:	831	0.32	4.7	1.14	29.2	80.9	54.70	\$454	19.6



# APT Trial Report

## Richard Minzenmayer



2016

Sales Contact Noble Laminack  
 Phone 325-716-8839  
 Email Noble.Laminack@bayer.com

State TX County Tom Green  
 Irrigated Yes Planting Date 6/8/2016  
 Soil Type clay loam Harvest Date 11/30/2016

Variety	Yield	Lint %	Mic	Length	Strength	Unif	Loan Value	Value/A	Height (In)
ST 4848GLT	1778	0.36	3.8	1.21	29.9	82.8	55.05	\$979	34.9
ST 4747GLB2	1763	0.33	4.2	1.26	29.2	82.2	55.05	\$970	32.0
ST 4949GLT	1648	0.37	4.0	1.13	30.2	80.1	56.80	\$936	36.4
ST 5115GLT	1631	0.34	3.8	1.17	30.5	80.9	55.20	\$900	32.7
ST 4848GLT	1617	0.37	3.8	1.16	27.7	82.2	56.30	\$910	36.1
ST 4946GLB2	1570	0.32	4.3	1.21	30.1	83.5	56.90	\$893	32.1
FM 1911GLT	1550	0.34	4.3	1.18	30.4	81.5	55.05	\$853	36.0
FM 1900GLT	1517	0.33	4.3	1.28	31.7	82.9	55.25	\$838	35.2
FM 1830GLT	1488	0.33	4.0	1.26	31.4	81.9	57.25	\$852	35.9
FM 2334GLT	1466	0.34	4.2	1.21	29.7	82.4	56.95	\$835	37.4
FM 1953GLTP	1430	0.32	4.0	1.23	29.8	83.2	55.15	\$788	32.0
FM 2007GLT	1139	0.29	3.8	1.23	29.9	82.7	55.05	\$627	35.5
Trial Average:	1550	0.34	4.0	1.21	30.0	82.2	55.83	\$865	34.7



# APT Trial Report



**Joel Webb**

2016

Sales Contact Noble Laminack

State TX

County Tom Green

Phone 325-716-8839

Irrigated Yes

Planting Date 5/24/2016

Email Noble.Laminack@bayer.com

Soil Type clay loam

Harvest Date 11/29/2016

Variety	Yield	Lint %	Mic	Length	Strength	Unif	Loan Value	Value/A	Height (In)
FM 2334GLT	1030	0.30	3.7	1.15	30.4	81.3	55.10	\$568	29.5
FM 1830GLT-B	1027	0.31	3.8	1.21	31.5	82.4	51.35	\$527	30.6
FM 1830GLT	937	0.27	3.4	1.25	31.3	82.8	48.15	\$451	33.2
ST 5115GLT	931	0.27	3.4	1.12	31.7	79.7	52.65	\$490	30.6
ST 5517GLTP	889	0.27	3.2	1.13	31.1	79.6	50.75	\$451	34.2
FM 1830GLT	865	0.27	3.3	1.28	33.9	82.5	53.50	\$463	31.4
FM 1830GLT-B	806	0.28	3.4	1.22	31.4	81.3	49.35	\$398	31.5
FM 1830GLT-B	801	0.27	3.5	1.25	31.8	81.9	53.40	\$428	30.1
FM 1900GLT	787	0.26	3.0	1.17	32.0	80.1	42.35	\$333	33.9
ST 4949GLT	758	0.28	3.3	1.03	25.2	76.6	43.40	\$329	36.5
ST 4848GLT	738	0.25	2.7	1.09	26.5	79.0	40.80	\$301	35.6
FM 1911GLT	738	0.25	3.0	1.15	29.4	79.4	45.25	\$334	33.9
FM 2007GLT	715	0.25	3.4	1.14	29.1	78.8	48.10	\$344	31.8
ST 4747GLB2	680	0.24	3.1	1.12	28.0	76.0	46.65	\$317	35.6
ST 4946GLB2	661	0.24	3.3	1.11	30.3	80.2	51.35	\$340	35.5
FM 1953GLTP	591	0.23	3.5	1.12	29.5	79.9	48.20	\$285	33.8
Trial Average:	810	0.27	3.3	1.16	30.2	80.1	48.77	\$397	33.0





# APT Trial Report

## Rick Minzenmayer



2016

Sales Contact Noble Laminack  
 Phone 325-716-8839  
 Email Noble.Laminack@bayer.com

State TX County Runnels  
 Irrigated No Planting Date 6/16/2016  
 Soil Type unknown Harvest Date 11/29/2016

Variety	Yield	Lint %	Mic	Length	Strength	Unif	Loan Value	Value/A	Height (In)
ST 5517GLTP	445	0.29	4.2	1.03	28.7	79.1	49.50	\$220	21.8
FM 1830GLT	431	0.32	4.1	1.09	29.7	78.7	53.00	\$229	26.1
ST 4747GLB2	419	0.33	4.2	1.10	28.9	79.0	53.10	\$223	22.8
FM 1911GLT	409	0.28	3.6	1.10	28.7	79.3	52.95	\$217	19.3
ST 4848GLT	403	0.30	4.4	1.06	26.2	78.5	51.55	\$208	24.4
FM 2334GLT	397	0.27	4.0	1.08	26.3	78.5	52.95	\$210	17.9
FM 2007GLT	392	0.28	3.6	1.09	28.7	79.3	52.95	\$208	20.4
ST 4946GLB2	370	0.28	3.5	1.03	28.3	77.1	47.30	\$175	17.7
FM 1900GLT	357	0.32	4.3	1.01	27.1	79.2	48.10	\$172	26.8
ST 4949GLT	354	0.27	3.6	1.08	30.0	78.6	53.05	\$188	23.1
ST 5115GLT	350	0.30	4.0	1.08	28.6	78.0	52.95	\$186	22.6
ST 4848GLT							0.00		
Trial Average:	394	0.29	4.0	1.07	28.3	78.7	47.28	\$203	22.1



# APT Trial Report



## Joel Webb

### 2016

Sales Contact **Noble Laminack**  
 Phone **325-716-8839**  
 Email **Noble.Laminack@bayer.com**

State **TX** County **Runnels**  
 Irrigated **No** Planting Date **6/11/2016**  
 Soil Type **unknown** Harvest Date **10/21/2016**

Variety	Yield	Lint %	Mic	Length	Strength	Unif	Loan Value	Value/A	Height (In)
FM 1900GLT	373	0.31	4.5	1.12	30.1	81.2	56.20	\$210	19.0
ST 5115GLT	363	0.30	4.2	1.04	29.1	79.1	49.55	\$180	18.2
ST 4946GLB2	350	0.29	4.5	1.07	29.2	80.6	50.90	\$178	18.7
ST 5517GLTP	348	0.30	4.3	1.11	31.9	81.6	56.50	\$197	20.9
FM 1911GLT	344	0.30	4.6	1.06	30.0	79.8	52.45	\$181	18.5
FM 1953GLTP	342	0.30	4.3	1.14	30.0	81.8	56.50	\$193	18.6
FM 2334GLT	329	0.31	4.5	1.12	30.7	81.3	56.90	\$187	19.7
FM 1830GLT	323	0.31	4.2	1.15	32.6	82.2	57.10	\$185	17.8
ST 4747GLB2	308	0.28	4.2	1.10	27.9	78.7	50.35	\$155	20.4
FM 2007GLT	304	0.28	3.9	1.14	30.8	80.5	55.10	\$168	18.9
ST 4848GLT	272	0.28	4.5	1.08	29.2	79.3	53.05	\$144	20.3
ST 4949GLT	246	0.29	4.1	1.07	29.0	80.2	52.70	\$130	22.1
Trial Average:	325	0.30	4.3	1.10	30.0	80.5	53.94	\$176	19.4



## Result Demonstration Report

### EVALUATION OF COTTON VARIETIES

#### COOPERATOR:

Chris Hirt

#### COORDINATORS

Brad Easterling, Extension Agent - IPM, Glasscock, Reagan, Upton Counties

Jacob McKillip, County Extension Agent - Agriculture, Glasscock County

Glasscock County

#### OBJECTIVE

To evaluate the cotton varieties which are or could potentially be commercially available to producers.

#### MATERIALS AND METHODS

Cotton varieties are provided from the major seed companies to evaluate for yield in our production area. These projects are planted, monitored during growing season, and then harvested for yield data.

Trade names of commercial products used in this report is included only for better understanding and clarity. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by Texas AgriLife Extension Service and the Texas A&M University System is implied. Readers should realize that results from one experiment do not represent conclusive evidence that the same response would occur where conditions vary.

**RESULTS & DISCUSSION**

The following pages contain one variety demonstration. This demonstration was a Monsanto FACT Trial established at the farm of Cole Schwartz.

**ACKNOWLEDGMENTS**

Thank you to all the cooperators and to the seed companies for providing the seed and financial support.

## 2016 Cotton Individual Plot Yield Report

**Cooperator:**  
Chris Hirt  
St. Lawrence, TX  
Reagan County

**Planted:** 6/6/2016  
**Harvested:** 11/23/2016  
**Row Width:** 40 inch spacing

**Tillage:** Conventional  
**Soil Texture:** Clay Loam  
**Irrigation:** Yes



Product Data			Crop Values \$/Crop Yield			* Fiber Characteristics					
Entry	Brand	Product Name	Crop Value (\$/Acre)	Lint Yield (Lbs/Acre)	Loan Price (per Lb)	Staple (32nds)	Length (inches)	Strength (g/tex)	Micronaire	% Uniformity	% Lint
1	Stoneville	ST 4946GLB2	\$976.76	1736	56.25	36.6	1.14	26.1	4.5	81.8	36.6
2	Monsanto	16R251NRB2XF	\$962.35	1706	56.40	38.7	1.21	26.9	4.6	81.5	41.1
3	Monsanto	16R231B2XF	\$947.99	1685	56.25	36.7	1.15	28.5	4.7	81.8	39.3
4	Deltapine	DP 1549 B2XF	\$942.41	1671	56.40	36.7	1.15	27.8	4.3	81.4	39.5
5	FiberMax	FM 2334GLT	\$914.48	1619	56.50	39.2	1.23	29.6	4.7	82.3	38.5
6	Monsanto	15R556B2XF	\$911.71	1612	56.55	37.9	1.19	27.1	4.1	80.7	42.9
7	Monsanto	16R245NRB2XF	\$911.47	1619	56.30	37.3	1.17	29.0	4.4	81.3	39.3
8	Monsanto	16R228NRB2XF	\$906.07	1611	56.25	37.0	1.16	26.6	4.6	81.4	39.7
9	Monsanto	16R248NRB2XF	\$905.31	1654	54.75	37.0	1.16	25.8	4.5	80.4	40.2
10	Deltapine	DP 1612 B2XF	\$894.00	1628	54.90	37.0	1.16	25.9	5.0	83.1	39.0
11	Deltapine	DP 1522 B2XF	\$882.81	1611	54.80	36.8	1.15	25.3	4.7	82.0	38.4
12	Monsanto	16R246NRB2XF	\$863.00	1533	56.30	37.6	1.17	27.0	4.7	82.6	40.0
13	Monsanto	16R252NRB2XF	\$843.68	1528	55.20	35.3	1.10	26.0	4.7	81.5	38.9
14	Deltapine	DP 1558NR B2RF	\$815.84	1438	56.75	39.0	1.22	30.5	4.5	83.7	37.7
15	Monsanto	16R225NRB2XF	\$768.44	1361	56.45	37.0	1.16	27.8	4.2	82.4	39.7
<b>TEST AVERAGE</b>			<b>\$ 896.42</b>	<b>1601</b>	<b>56.00</b>	<b>37.3</b>	<b>1.17</b>	<b>27.3</b>	<b>4.5</b>	<b>81.9</b>	<b>39.4</b>

Value Calculation based on \$0.52/Lb(+/-) discounts/premiums from the 2016 USDA Loan Chart (Ranked by Value \$/A). All plots were assigned a base color (31) and leaf grade (3).

Entries listed as "Monsanto" brand are experimental varieties, and not for sale.

**Individual results may vary**, and performance may vary from location to location and from year to year. This result may not be an indicator of results you may obtain as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and year whenever possible.





## Result Demonstration Report

### EVALUATION OF COTTON VARIETIES

COOPERATOR:

Cole Schwartz

COORDINATORS

Brad Easterling, Extension Agent - IPM, Glasscock, Reagan, Upton Counties

Jacob McKillip, County Extension Agent - Agriculture, Glasscock County

Glasscock County

### OBJECTIVE

To evaluate the cotton varieties which are or could potentially be commercially available to producers.

### MATERIALS AND METHODS

Cotton varieties are provided from the major seed companies to evaluate for yield in our production area. These projects are planted, monitored during growing season, and then harvested for yield data.

Trade names of commercial products used in this report is included only for better understanding and clarity. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by Texas AgriLife Extension Service and the Texas A&M University System is implied. Readers should realize that results from one experiment do not represent conclusive evidence that the same response would occur where conditions vary.

## **RESULTS & DISCUSSION**

The following pages contain one variety demonstration. This demonstration was a PhytoGen Innovation Trial established at the farm of Cole Schwartz.

## **ACKNOWLEDGMENTS**

Thank you to all the cooperators and to the seed companies for providing the seed and financial support.

# PhytoGen Innovation Trial

Cole Schwartz Farm

Planted 5-26-16

Harvested: 10-27-  
16

Glasscock Co.

8 Row plots / 40' row spacing/ 3  
replications

Seeds/AC - 39,200

<u>Variety</u>	<u>Lint Yield</u>	<u>Mic</u>	<u>Length</u>	<u>Unfi</u>	<u>Strength</u>	<u>Loan</u>	<u>Crop Value</u>
PHY 444 WRF	1101	4.6	37.8	82.3	30.0	0.5690	\$626
FM 2334 GLT	1015	5.0	38.1	82.6	31.9	0.5553	\$563
PHY 496 WRF	974	5.1	33.3	81.5	30.0	0.5453	\$531
PHY 312 WRF	970	5.1	35.4	82.5	29.2	0.5447	\$528
PHY 499 WRF	940	5.2	34.2	81.4	29.1	0.5438	\$511
PHY 333 WRF	884	4.9	35.5	82.1	29.7	0.5687	\$503
PHY 490 W3FE	921	5.1	34.6	81.2	29.8	0.5452	\$502
PHY 764 WRF	631	4.5	36.3	82.2	33.1	0.5712	\$360

# Result Demonstration Report

## 2016 Sorghum Seeding Rate Trial

Cooperator: Michael & Allen Fuchs

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties, Garden City, Texas  
Jacob McKillip, CEA-AG, Glasscock County, Garden City, Texas

### Summary

Six different seeding rates were used to plant a Golden Acres' variety 5515 by Michael & Allen Fuchs on April 8, 2016 in Glasscock County. Seeding rates ranged from a low of 15,752 sd/ac to a high of 23,627 sd/ac. Yields for this trial ranged from a low of 1962 lbs/ac for the 22,052 sd/ac to a high of 2315 lbs/ac for 20,400 sd/ac. The trial was planted dryland. Sugarcane aphid was not a problem in this field and did not start showing up before harvest.

### Objective

Producers are continually asking what the optimum seeding rate for grain sorghum is and very little research has been done in the St. Lawrence area. Furthermore, new research is needed with new varieties being released. The objective of this trial was to determine what the optimum seeding rate may be for at least one sorghum variety planted in the St. Lawrence region of West Texas.

### Materials and Methods

The field used for this test was dryland with no fertilizer applied. The varieties were planted in 8 row plots in a solid pattern on 40" spacing on April 8<sup>th</sup>. The rows were 764 feet long and the seeding rates were 15,752, 16,962, 18,377, 20,400, 22,052, and 23,627 sd/ac. The field received approximately 9 inches of rain during the growing season. The plots were harvested on August 8<sup>th</sup>, and weighed on platform scales. The samples were taken to the Glasscock County Co-op and tested for moisture and test weight.

### Results and Discussion

As seen in Table 1, grain yields varied with a low of 1962 lbs/ac for the 22,052 sd/ac to a high of 2315 lbs/ac for 20,400 sd/ac. Percent Moisture was 10.3% for all seeding rates. All moisture readings were below the allowable limits. Test weights were also 55.8 for all

treatments. The test weight and percent moisture was the same as the 5515 in the variety trial.

### **Conclusions**

With this trial not being replicated and treatments in between the top two seeding rates yielding lower I feel the data is inconclusive. It does however give a range to aim for which coincides with previous research. Sorghum has been seeing a resurgence of sorts in the St. Lawrence area, but proper planting date, variety selection, fertility, and moisture are keys. Early planting does help to get an early head start against the Sugarcane aphid and hopefully eliminate or reduce insecticide applications.

### **Acknowledgements**

The authors would like to thank Mr. Michael Fuchs & Mr. Allen Fuchs for cooperating in this demonstration.

They would also like to thank the seed companies who donated the seed.

<b>Michael/Allen Fuchs</b>			<b>8/8/2016</b>
<b>Seeding Rate</b>	<b>% Moisture</b>	<b>Test Weight</b>	<b>Adjusted Yield Per Acre</b>
20,400	10.3	55.8	2315
16,963	10.3	55.8	2293
15,752	10.3	55.8	2116
18,377	10.3	55.8	2050
23,627	10.3	55.8	2028
22,052	10.3	55.8	1962
AVG			2127

# Result Demonstration Report

## 2016 Sorghum Variety Trial

Cooperator: Michael & Allen Fuchs

**Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties, Garden City, Texas**  
**Jacob McKillip, CEA-AG, Glasscock County, Garden City, Texas**

### Summary

Ten sorghum varieties were planted by Michael & Allen Fuchs on April 8, 2016 in Glasscock County. Yields for this trial ranged from a low of 1302 lbs/ac for Richardson's 9200Y to a high of 2102 lbs/ac for Golden Acres' 5515. The trial was planted dryland. Sugarcane aphid was not a problem in this field and did not start showing up before harvest.

### Objective

A handful of producers have begun rotating sorghum more and more with cotton acres over the past few years. The objective of this trial was to determine which varieties are likely to perform better in the extreme heat and dry climate of West Texas. Sugarcane aphids were also monitored to see if there was difference in numbers of aphids on any variety compared to other varieties. We also wanted to see if any of the non-tolerant varieties could out yield the tolerant varieties in the absence of Sugarcane aphids.

### Materials and Methods

The field used for this test was dryland with no fertilizer applied. The varieties were planted in 24 row plots in a solid pattern on 40" spacing on April 8<sup>th</sup>. The rows were 764 feet long and the seeding rate was 22,052 sd/ac. The field received approximately 9 inches of rain during the growing season. The plots were harvested on August 8<sup>th</sup>, and weighed on platform scales. The samples were taken to the Glasscock County Co-op and tested for moisture and test weight.

### Results and Discussion

As seen in Table 1, grain yields varied with a low of 1302 lbs/ac for Richardson's 9200Y to a high of 2102 lbs/ac for Golden Acres' 5515. Percent Moisture varied from a low of 9.3% for Sorghum Partners' 34A19 to a high of 11.2% for Richardson's 9200Y. All moisture readings were

below the allowable limits. Test weights ranged from a high of 58.6 for Dekalb's 37-07, to a low of 51.6 for Sorghum Partners' 34A19.

### Conclusions

Sorghum has been seeing a resurgence of sorts in the St. Lawrence area, but proper planting date, variety selection, fertility, and moisture are keys. Early planting does help to get an early head start against the Sugarcane aphid and hopefully eliminate or reduce insecticide applications.

### Acknowledgements

The authors would like to thank Mr. Michael Fuchs & Mr. Allen Fuchs for cooperating in this demonstration.

They would also like to thank the seed companies who donated the seed.

<b>Michael/Allen Fuchs</b>				<b>Adjusted Yield per Acre</b>	<b>Sugarcane Aphid Tolerant Varieties</b>	<b>Maturity</b>
<b>Variety</b>	<b>% Moisture</b>	<b>Test Weight</b>				
Golden Acres	5515	10.3	55.8	2102		Medium
Pioneer	85P05	10.6	57.5	2058		Medium
Golden Acres	5613	10.3	55.8	1940		Medium
Dekalb	37-07	10.6	58.6	1904	*	Medium-early
Sorghum Partners	34A19	9.3	51.6	1880		Medium-early
Sorghum Partners	K35-Y5	10.0	56.8	1836		Medium-early
Mycogen	1G588	9.8	54.6	1805		Medium
Pioneer	85G01	10.6	57.1	1598		Medium
Alta	AG1203	10.8	53.4	1586	*	Medium
Richardson	9200Y	11.2	52.4	1302		Medium
	AVG	10.1	55.8	1932		
	MIN	9.3	51.6	1586		
	MAX	11.2	58.6	2102		

# Result Demonstration Report

## 2015-2016 Wheat Variety Trial

Cooperator: Sammy Kellermeier

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties, Garden City, Texas

Jacob McKillip, CEA-AG, Glasscock County, Garden City, Texas

Glasscock County

### Summary

Twelve wheat varieties were planted by Sammy Kellermeier on November 10, 2015 in Glasscock County. Yields ranged from 64.59 bu/ac for TAM 114 to 24.20 bu/ac for Weathermaster. Test weights ran from 63.2 for TAM 114 to 59.6 for TAM 204. These varieties were raised using normal limited irrigation small grain production practices. When reviewing the test results, producers should keep in mind that this is only one year's data. Year to year consistency should be a primary consideration in selecting varieties of small grains to be planted. Also note that this was an unusually wet winter for the St. Lawrence area as well as a year of higher than normal rust incidence. Not all varieties in the trial were resistant or even tolerant to stripe or leaf rust.

### Objective

Small grain production has not been at the forefront of cropping systems in the tri-county area historically. Many producers not only plant wheat for grain production, but for livestock grazing as well. New varieties of wheat and other small grain forages become available on a yearly basis. When combined with already available varieties planting decisions become very difficult. Variety tests provide producers with the opportunity of comparing new varieties of smallgrains with more established varieties that have been successfully grown under varying weather conditions in Glasscock County. Utilization of new varieties, that are equal to or exceed currently available varieties, should increase production and income of county producers.



## **Materials and Methods**

Varieties were sown in single replications 15 feet wide in 920 foot long passes on November 10, 2015 following cotton at a rate of 40 lbs per acre. Moisture at the time of establishment was decent and all seed came up fine. The plots received 2 gallons, 20 units of N during the season as well as 2 inches of water. This was applied during February, before the plants began tillering and when the crop was starting to get a little dry. No application of a fungicide was made this season although leaf rust was increasing in several of the less tolerant varieties. The plots were weighed on platform scales and samples taken to the Glasscock County Co-op and tested for moisture and test weight.

## **Rainfall**

November 15 – 3.12

December – 1.77

January – 0.15

February – 0.55

March – 1.07

April – 2.59

May – 1.42

June 5 – 2.84

## **Results and Discussion**

As seen in Table 1, grain yields varied with a low of 24.2 lbs/ac for Weathermaster to a high of 63.2 lbs/ac for TAM 114. Percent Moisture varied from a low of 10.8% for TAM 204, to a high of 11.6% for TAM 113. All moisture readings were below the allowable limits. Test weights ranged from a high of 63.2 for TAM 114, to a low of 59.6 for TAM 204. Leaf rust was not as large of a factor in the trial this year as in the past. It did impact the yield in the bottom couple of varieties however. All plots had some amount of rust present. In Table 2 is my two-year average of wheat yields in the variety trials.

## **Conclusions**

Wheat can be grown in the St. Lawrence area, but proper variety selection, fertility, and moisture are keys. As was seen in this trial, limited irrigation with a well-timed watering can lead to some above average yields. Of course, above average rainfall helps as well.

## **Acknowledgements**

The authors would like to thank Mr. Sammy Kellermeier for cooperating in this demonstration. They would also like to thank the seed companies who donated the seed.

Table 1

**Kellermeier Wheat Variety Trial**

DATE 5/26/2016



Variety	% Moisture	Test Wt.	Bu/Ac	Leaf Rust	Stripe Rust	Green bug	
TAM 114	11.5	63.2	64.59	MR	R	S	
TAM 113	11.6	62.5	62.37	R	R	-	
TAM 204	10.8	59.6	56.42	MS	MR	R	BL
Deliver	11.1	60.9	49.52				BL
W.B. 4458	11.0	61.8	46.77	MS	MR	-	
TAM 111	11.5	62.4	46.50	S	S	S	
TAM 401	11.4	60.5	46.13	MR	R	S	BL
Duster	11.2	61.3	45.80	R	MS	S	
Winterhawk	11.4	62.9	44.83	MS	MR	-	
Grainfield	11.5	61.0	41.34	MR	R	-	
Greer	11.2	61.2	37.16	S	MR	-	
Weathermaster	11.2	60.7	24.20	MR	MS	-	BL
Average	11.28	61.50	47.13				
Minimum	10.80	59.60	24.20				
Maximum	11.60	63.20	64.59				

Table 2

**2015-2016 AVG**

Variety	% Moisture	Test Wt.	Bu/Ac	
TAM 114	11.6	62.3	59.07	
TAM 113	11.15	60.65	48.50	
<b>TAM 204</b>	11.2	61.1	42.73	BL
<b>Deliver</b>	11.25	59.5	44.34	BL
<b>TAM 401</b>	11.25	61.5	44.10	BL
Winterhawk	11.7	62	50.51	
W.B. 4458	10.9	59.1	50.17	
Grainfield	11.4	59.7	47.73	
TAM 111	11.1	60.85	47.37	
Duster	11.1	60.15	29.76	
<b>Weathermaster</b>	11.55	62.25	47.49	BL
Average	11.29	60.83	46.52	
Minimum	10.90	59.10	29.76	
Maximum	11.70	62.30	59.07	