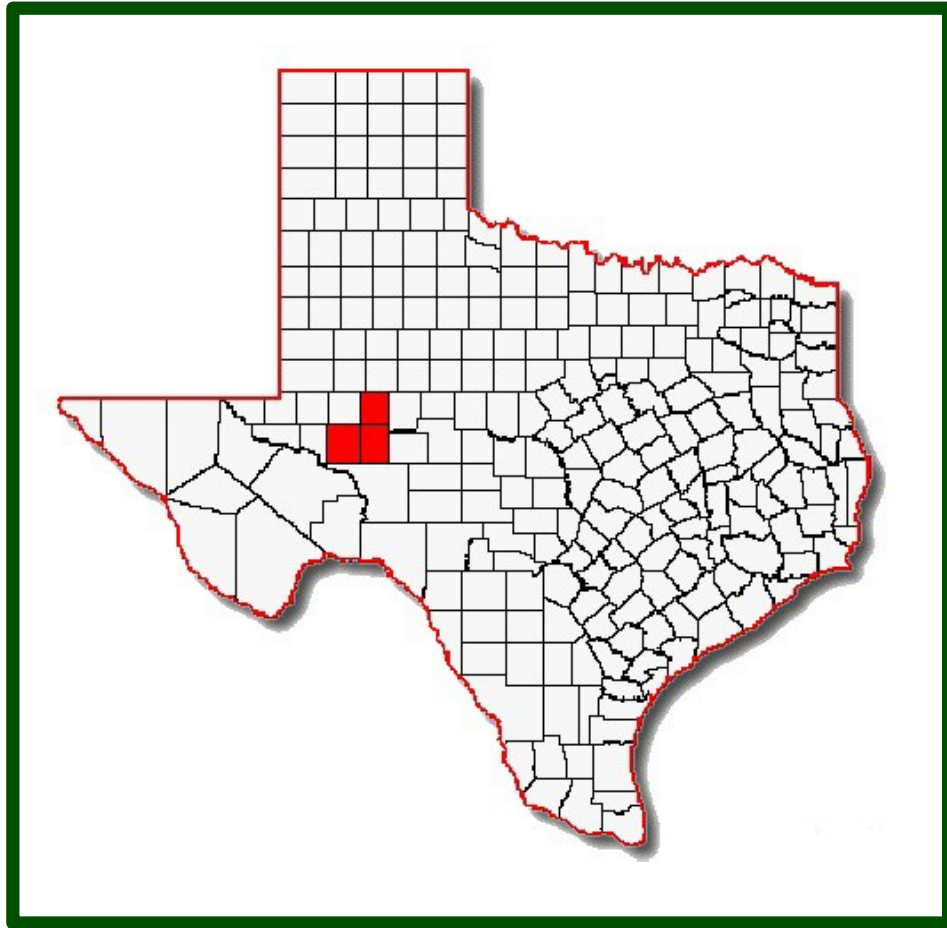


# INTEGRATED PEST MANAGEMENT



Glasscock, Reagan & Upton  
IPM Program  
2017



TEXAS A&M  
AGRILIFE  
EXTENSION

# **GLASSCOCK, REAGAN, and UPTON COUNTIES PEST MANAGEMENT PROGRAM**

## **2017 ANNUAL REPORT**

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**In cooperation with**

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

**And**

**TEXAS PEST MANAGEMENT ASSOCIATION**



Trade names of commercial products used in this report is included only for better understanding and clarity. Reference to commercial products or tradenames 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.

## 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 2017 program.

Board of Directors of the St. Lawrence Cotton Growers:

Chris Hirt  
James Schwartz  
Pat Pelzel  
Wayne Jansa  
Allan Fuchs

Jeremy Gully Cody  
Wilson Marcus  
Halfmann Russell  
Halfmann

Appreciation is also extended to all of the following producers for their cooperation with applied research/result demonstration projects this season.

John Evridge  
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Chris Hirt  
Darrell Halfmann  
Cole Schwartz  
David Meyer

Acknowledgment is also extended to the following members of Texas A&M AgriLife Extension Service and Texas A&M AgriLife Research for their program-planning support:

Rebel Royall.....District Extension Administrator, Ft. Stockton  
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Dr. David Ragsdale.....Head of Department of Entomology, College Station  
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Jason Woodward.....Asso. Dep. Head Dept. of Plant Pathology, Lubbock  
Dr. Calvin Trostle.....Prof. & Extension Agronomist, District 2, Lubbock  
Mr. Cody Trimble.....Extension Agent – Agriculture, Garden City  
Mrs. Tara Stiles.....Secretary to the Extension Agent-IPM, Garden City  
Mr. Chase McPhaul.....Reagan County Extension Agent –Agriculture, Big Lake  
Mr. Raymond Quigg.....Upton County Extension Agent-Agriculture, Rankin

Appreciation is also extended to the pest management scouts for 2017. Scouts were Cade Braden and Scott Miller.

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## INTRODUCTION

A “survey type” pest management program was operated in 2017 in the St. Lawrence Area. The program has been in operation for the past thirty-eight 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, pecans, and watermelons are grown. In Table 1 below are the estimated cotton acreages combined for each county and the approximate lint yields. There were 123,736 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 2017

COUNTY	COTTON ACREAGE	AVERAGE YIELD
GLASSCOCK	101,667	571
REAGAN	41,482	571
UPTON	15,258	571

Several pests attack cotton in the St. Lawrence Area. Bollworms and fleahoppers are generally the major pests. Grasshoppers, thrips, and spider mites are occasional pests in the area. The major weed problems in the area are glyphosate resistant pigweed, silver leaf nightshade, hog potato, bundle flower, devil’s claw, prairie sunflower, dwarf crown beard, morning glory, field bindweed, and other perennial weeds. Cotton root rot, verticillium wilt, bacterial blight, 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 2017. 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.....	Pat Pelzel
Secretary-Treasurer.....	Chris Hirt
.....	Wayne Jansa
.....	James Schwartz
.....	Jeremy Gully
.....	Marcus Halfmann/ John Evridge
.....	Cody Wilson
.....	Russell Halfmann
.....	Wilbert Braden

TABLE 2

## RAINFALL FOR 2017

	<u>BIG LAKE</u>	<u>LOMAX</u>	<u>ST. LAWRENCE</u>
JAN-	1.78	2.03	1.49
FEB-	1.67	.52	1.08
MARCH-	.38	.47	1.15
APRIL-	1.47	2.59	2.38
MAY-	2.16	3.90	1.21
JUNE-	1.28	3.28	1.20
JULY-	3.11	.49	1.55
AUG-	3.41	3.30	1.42
SEPT-	1.76	2.11	2.65
OCT-	.64	.60	.34
NOV-	.60	.23	.83
DEC-	.81	.23	.59
<b><u>TOTAL</u></b>	<b>19.07</b>	<b>20.05</b>	<b>15.89</b>

TABLE 3

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

FUNDS ON HAND, JANUARY 1, 2017	343.81
BUDGET RECEIPTS	
UNIT SCOUTING CONTRIBUTIONS	19,000.00
Membership Received	2,280.00
TOTAL INCOME	21,280.00
SCOUTING EXPENSE	
ADMINISTRATIVE FEE	2,508.00
PAYROLL TAX EXPENSE	656.76
TRAVEL—SCOUT	5,837.95
WAGES (SALARY AND WAGES)	7,338.00
MEMBERSHIP PAID	<u>2,280.00</u>
TOTAL SCOUTING EXPENSE	18,620.71
OPERATING BALANCE AS OF DATE CASH IN BANK	<u>723.10</u>
TOTAL CURRENT BALANCE	723.10



## SCOUTING PROGRAM ACTIVITIES

The St. Lawrence Area covering Glasscock, Reagan and Upton Counties had a total of 158,407 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 two scouts checked fields all across the St. Lawrence area.

Following is a table of the 2017 scouting statistics.

TABLE 4 – ST. LAWRENCE AREA SCOUTING STATISTICS - 2017

AVERAGE SIZE OF FIELDS	120 ACRES
NUMBER OF SCOUTS	2
PROGRAM FINANCING- IRRIGATED	\$0.50 PER BALE
PROGRAM FINANCING- DRYLAND	\$0.25 PER ACRE
TOTAL ACRES - IRRIGATED	34,671
TOTAL ACRES - DRYLAND	123,736
PROGRAM EXPENDITURES	18,620.71
MILEAGE RATE	.52/MILE
SCOUT HOURLY RATE	\$10.00

The two field scouts began work by attending a scout training seminar in San Angelo. 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 as 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. 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. The scouting program was changed up significantly this season as the scouts began checking ten random fields in one of five regions in the St. Lawrence area each day of the week. Reports were written up on each field and then

a summary report was written up and emailed to all producers as well as posted on the IPM Blog weekly. Feedback to this point has been very positive and the cost savings to the program have been significant.

#### PESTSITUATION

Pest populations in 2017 were low. Thrips numbers were light in most fields this year with minor exceptions near wheat. Aphids were at low but constant levels most of the season. 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 an herbicide application was being made. In many of these fields, aphids were flared up and had to be controlled later in the season.

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, several in South Texas, multiple fields on the high plains and along the coast. All of the reports involve different varieties.

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 pre-season moisture as the growing season was dry.

Total Planted Acres in Glasscock, Reagan, and Upton Counties

<b>Glasscock</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Cotton	101,667	100,971	105,008	104,505
Corn	280	270	95	294
Pecans	875	975	553	511
Sorghum	2,427	1,828	2,554	2983
Watermelon	175	186	122	100
Wheat	9,127	7,232	15,415	15,079

<b>Reagan</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Cotton	41,482	37,867	37,962	33,825
Corn	615	1,008	1,036	210
Pecans	153	148	148	124
Sorghum	1,224	2,771	3,728	1472
Watermelon	73	80	91	65
Wheat	10,443	11,022	12,164	11,014

<b>Upton</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Cotton	15,258	16,018	15,457	10,611
Corn	49	0	19	0
Pecans	90	90	90	90
Sorghum	723	804	1,485	191
Watermelon	237	221	119	111
Wheat	10,859	6,690	9,527	8356

TABLE 6

## Cotton Production in the St. Lawrence Area

	Total	Glasscock	Midkiff
2007	252,465	180,317	72,148
2008	68,907	48,206	20,701
2009	119,737	86,410	33,327
2010	159,387	112,454	46,933
2011	52,610	35,657	16,953
2012	97,801	66,310	31,491
2013	115,398	83,997	31,401
2014	124,261	87,422	36,839
2015	122,729	88,184	34,545
2016	151,765	100,743	51,022
2017	181,631	122,325	59,306
Total	1,446,691	1,102,025	434,666
Average	131,517	92,002	39,575
10 Year Total	1,194,226	831,708	362,518
10 Year Avg.	119,423	83,171	36,252

## 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 7

## 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

TEXAS A&M  
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Result Demonstration Reports



# Result Demonstration Report

## IRRIGATED COTTON VARIETY DEMONSTRATION

Cooperator: Doug Schaefer

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties, Garden City, Texas  
 Cody Trimble, CEA-AG, Glasscock County, Garden City, Texas  
 Chase McPhaul, Reagan County, Big Lake, Texas  
 Raymond Quigg, CEA-AG, Upton County, Rankin, Texas

Glasscock County

### SUMMARY

Ten cotton varieties were compared in strip plots under similar field conditions. Lint yields varied with a low of 1153 lb/acre (NG 5007 B2XF) to a high of 1343 lb/acre (DG 3635 B2XF). Lint loan values averaged \$0.5196 /lb and ranged from a low of \$0.4770 /lb (NG 5007 B2XF) to a high of \$0.5450 /lb (FM 2484 B2F). Gross Return/acre among varieties ranged from a high of \$928.18 (FM 2334 GLT) to a low of \$732.67 (NG 5007 B2XF), a difference of \$195.51.

### OBJECTIVE

To find cotton varieties that will increase net profits with an increase in yield and fiber qualities. These varieties must also fit the limited irrigation of the St. Lawrence cotton growing region as well as yield consistently year after year.

### MATERIALS AND METHODS

The field used for this test was drip irrigated, planted in 6 row plots in a 2 x 1 pattern on 40" spacing on May 19<sup>th</sup>. Rows were 1263 feet long and each plot was .58 acres in size. This trial was planted on May 19<sup>th</sup> with 32 oz. of direx banded on at planting. The plots received a total of 60 units of N throughout the growing season as well as 6.5 inches of irrigation. They were defoliated with 16 oz. of ethephon and 3 oz. of paraquat followed by a desiccating shot of 18 oz. of paraquat. They were stripper harvested on November 14<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

As seen in Table 1, lint yields varied with a low of 1153 lb/acre NexGen 5007 B2XF to a high of 1343 lb/acre DynaGro 3635 B2XF. Lint loan values averaged \$0.5196 /lb and ranged from a low of \$0.4770 /lb NexGen 5007

B2XF to a high of \$0.5450/lb Fibermax 2484 B2F \$0.5342 /lb. Gross Return/acre among varieties ranged from a high of \$928.18 Fibermax 2334 GLT to a low of \$732.67 NexGen 5007 B2XF, a difference of \$195.51. Lint turnout ranged from a low of 29.41% to a high of 37.73% for DeltaPine 1549 B2XF and DeltaPine 1646 B2XF, respectively. Micronaire values ranged from a low of 3.9 for PhytoGen 444 WRF to a high of 4.8 for Stoneville 5020 GLT. Staple averaged 35 across all varieties with a low of 33 for NexGen 5007 B2XF and a high of 37 for PhytoGen 444 WRF. The highest percent uniformity was observed for Stoneville 5020 GLT (81.6%) and DeltaPine 1549 B2XF had the lowest (78.4%). Strength values ranged from 25.1 g/tex for NexGen 5007 to 30.0 g/tex for Stoneville 5020 GLT. Color grades were overall below average with only one grading a 31 DeltaPine 1555 B2RF, 5 varieties graded a 41, 1 going 32, and 3 grading a 42. This was mostly due to harvesting the plot a little later into the season. However, speaking with producers in the area, they have harvested cotton at this time and later with better color grades. Leaf grades were fairly consistent with only one 1 with DeltaPine 1555 B2RF, and only two 2's, Stoneville 5517 GLTP and NexGen 5007 B2XF. The remaining varieties were 3's and 4's. These data indicate that substantial differences can be obtained in terms of Gross Return/acre due to variety and technology selection.

### **CONCLUSIONS**

As seen in Table 1, significant differences in cotton yields, grades, and loan value can be seen from different varieties. However, it is important to keep in mind that these trials are not replicated and in many cases this is the first year that we have looked at these varieties. Multiple years of data along with replicated trials is always more reliable when determining top performing varieties. Of course, if you have a variety that performs well for you that does not perform well in these trials I encourage you to continue to plant it.

### **ACKNOWLEDGMENTS**

The authors would like to thank Mr. Doug Schaefer for cooperating in this demonstration.

Thank you to the seed companies that provided cotton seed and financial support, they include:

Americot Inc. who provided NexGen 5007 B2XF.

Bayer CropScience who provided FiberMax 2334 GLT, FiberMax 2484 B2F, Stoneville 5020 GLT, and Stoneville 5517 GLTP.

Crop Production Services who provided Dyna-Gro 3635 B2XF.

Dow Dupont who provided PhytoGen 444 WRF.

Monsanto Company who provided Deltapine 1549 B2XF, Deltapine 1555 B2RF, and Deltapine 1646 B2XF.



## 2017 Cotton Variety Trial

Producer: <b>Doug Schaefer - Irrigated</b>	Plant Date: 5/19/2017
Name of County: Glasscock	Harvest Date: 10/21/2017
Design: 2x1	Herbicide: 32 oz direx at plant
	Fertility: 60 units N



Variety	Yield Per Acre		% Turnout		Loan Value	Lint Gross Return	Seed Gross Return	Color	Leaf	Staple	Mic	Strength	Unif.	Gross Return (\$/acre) <sup>1</sup>
	Lint	Seed	Lint	Seed										
<b>FM 2334 GLT</b>	1315	2025	33.81%	52.06%	\$0.5440	\$715.54	\$212.64	41	3	36	4.3	28.4	81.2	\$928.18
<b>ST 5517 GLTP</b>	1296	2236	33.54%	57.89%	\$0.5275	\$683.39	\$234.81	41	2	35	4.1	28.0	79.0	\$918.19
<b>PHY 444 WRF</b>	1325	2145	34.93%	56.55%	\$0.5110	\$677.26	\$225.27	42	4	37	3.9	29.9	81.5	\$902.54
<b>DG 3635 B2XF</b>	1343	2098	35.89%	56.08%	\$0.4885	\$656.01	\$220.33	42	4	34	4.0	28.9	79.8	\$876.34
<b>DP 1555 B2RF</b>	1250	1908	35.53%	54.22%	\$0.5285	\$660.60	\$200.29	31	1	34	4.4	27.8	80.0	\$860.89
<b>DP 1646 B2XF</b>	1230	1726	37.73%	52.95%	\$0.5440	\$668.95	\$181.22	41	3	36	4.3	27.9	80.4	\$850.18
<b>ST 5020 GLT</b>	1221	2046	35.22%	59.02%	\$0.5175	\$631.84	\$214.80	42	3	36	4.8	30.0	81.6	\$846.64
<b>FM 2484 B2F</b>	1165	1939	29.62%	49.32%	\$0.5450	\$634.81	\$203.61	41	3	36	4.0	28.6	80.8	\$838.41
<b>DP 1549 B2XF</b>	1202	1788	29.41%	43.74%	\$0.5125	\$616.04	\$187.71	41	4	34	4.2	27.3	78.4	\$803.75
<b>NG 5007 B2XF</b>	1153	1740	35.19%	53.11%	\$0.4770	\$549.95	\$182.72	32	2	33	4.4	25.1	79.9	\$732.67
<b>Average</b>	1250	1965	34.09%	53.49%	\$0.5196	\$649.44	\$206.34	-	-	35	4.2	28.2	80.3	\$855.78
<b>Max.</b>	1343	2236	37.73%	59.02%	\$0.5450	\$715.54	\$234.81	-	-	37	4.8	30.0	81.6	\$928.18
<b>Min.</b>	1153	1726	29.41%	43.74%	\$0.4770	\$549.95	\$181.22	-	-	33	3.9	25.1	78.4	\$732.67

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

<sup>1</sup>Lint Values were calculated using the 2017 Upland Cotton Loan Valuation Model from Cotton Incorporated

Gross Seed Return based on \$135/ton

For Questions Contact: Brad Easterling

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## Result Demonstration Report

### IRRIGATED COTTON VARIETY DEMONSTRATION

Cooperator: Michael & Allen Fuchs

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties, Garden City, Texas  
 Cody Trimble, CEA-AG, Glasscock County, Garden City, Texas  
 Chase McPhaul, Reagan County, Big Lake, Texas  
 Raymond Quigg, CEA-AG, Upton County, Rankin, Texas

Glasscock County

#### **SUMMARY**

Twelve cotton varieties were compared in strip plots under similar field conditions. Lint yields varied with a low of 1382 lb/acre (ST 5020 GLT) to a high of 1792 lb/acre (DP 1549 B2XF). Lint loan values averaged \$0.5342/lb and ranged from a low of \$0.5040/lb (PHY 499 WRF) to a high of \$0.5635/lb (DP 1549 B2XF). Gross Return/acre among varieties ranged from a high of \$1,258.60 (DP 1549 B2XF) to a low of \$957.34 (CG 3885 B2XF), a difference of \$301.26.

#### **OBJECTIVE**

To find cotton varieties that will increase net profits with an increase in yield and fiber qualities. These varieties must also fit the limited irrigation of the St. Lawrence cotton growing region as well as yield consistently year after year.

#### **MATERIALS AND METHODS**

The field used for this test was drip irrigated. The varieties were planted in 6 row plots in a 2 x 1 pattern on 40" spacing on May 26<sup>th</sup>. Rows were 1943 feet long and each plot was .89 acres in size. They were picker harvested on November 14<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**

As seen in Table 1, lint yields varied with a low of 1382 lb/acre for Stoneville 5020 GLT to a high of 1792 lb/acre for DeltaPine 1549 B2XF. Lint loan values averaged \$0.5342/lb and ranged from a low of \$0.5040/lb for PhytoGen 499 WRF to a high of \$0.5635/lb DeltaPine 1549 B2XF. Gross Return/acre among varieties ranged from a high of \$1,258.60 DeltaPine 1549 B2XF to a low of \$957.34 Cropland Genetics 3885 B2XF, a difference of \$301.26. Lint turnout ranged from a low of 36.80% to

a high of 40.66% for NexGen 4689 B2XF and DeltaPine 1646 B2XF, respectively. Micronaire values ranged from a low of 3.3 for PhytoGen 444 WRF to a high of 4.1 for DeltaPine 1555 B2RF and PhytoGen 312 WRF. Staple averaged 36 across all varieties with a low of 34 for Cropland Genetics 3885 B2XF and a high of 39 for PhytoGen 444 WRF. The highest percent uniformity was observed for PhytoGen 312 WRF (82.5%) and Stoneville 5517 GLTP had the lowest (78.2%). Strength values ranged from 27.3 g/tex for Cropland Genetics 3885 B2XF to 31.4 g/tex for Fibermax 2334 GLT. Color grades were overall below average with only one grading a 31 DeltaPine 1549 B2XF, 9 varieties graded a 41 and 2 grading a 51. This was mostly due to harvesting the plot a little later into the season. However, speaking with producers in the area, they have harvested cotton at this time and later with better color grades. Leaf grades were fairly consistent with only one 1 with NexGen 4689 B2XF, and only two 2's, DeltaPine 1646 B2XF and DynaGro 3635 B2XF. The remaining varieties were 3's except for a 4 for PhytoGen 312 WRF. These data indicate that substantial differences can be obtained in terms of Gross Return/acre due to variety and technology selection.

### **CONCLUSIONS**

As seen in Table 1, significant differences in cotton yields, grades, and loan value can be seen from different varieties. However, it is important to keep in mind that these trials are not replicated and in many cases this is the first year that we have looked at these varieties. Multiple years of data along with replicated trials is always more reliable when determining top performing varieties. Most likely PHY 444 WRF MIC could have been improved several points by letting the block open up a little more before defoliating this variety. However, this becomes difficult in these trials as we do not want to let one variety fall out excessively while we wait on another to get ready. It has to be when the majority of the varieties are at the optimum stage to defoliate, and unfortunately PHY 444 was hurt by this this season.

### **ACKNOWLEDGMENTS**

The authors would like to thank Mr. Michael and Allan Fuchs for cooperating in this demonstration. They would also like to thank the seed companies who donated the seed.

Americot Inc. who provided NexGen 4689 B2XF.

Bayer CropScience who provided FiberMax 2334 GLT, Stoneville 5020 GLT, and Stoneville 5517 GLTP.

Crop Production Services who provided Dyna-Gro 3635 B2XF.

Dow Dupont who provided PhytoGen 444 WRF, Phytogen 499 WRF, and Phytogen 312 WRF.

Monsanto Company who provided Deltapine 1549 B2XF, Deltapine 1555 B2RF, and Deltapine 1646 B2XF.

Winfield Solutions who provided Croplan Genetics 3885 B2XF

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.

## 2017 Cotton Variety Trial

Producer:	<b>Michael/Allen Fuchs - Irrigated</b>	Plant Date:	5/26/2017
Name of			
County:	Glasscock	Harvest Date:	11/14/2017
Design:	2x1	Herbicide:	
		Fertility:	



Variety	Yield Per Acre		Loan Value	Lint Gross Return	Seed Gross Return	Color	Leaf	Staple	Mic	Strength	Unif.	Gross Return (\$/acre) <sup>1</sup>		
	Lint	Seed												
DP 1549 B2XF	1792	2369	39.38%	52.06%	\$0.5635	\$1,009.83	\$248.78	31	3	36	3.7	31.1	80.3	\$ 1,258.60
PHY 444 WRF	1769	2404	39.75%	54.01%	\$0.5300	\$937.42	\$252.39	41	3	39	3.3	30.2	81.7	\$ 1,189.81
DP 1646 B2XF	1623	2012	40.66%	50.41%	\$0.5480	\$889.25	\$211.23	41	2	38	3.9	27.8	80.7	\$ 1,100.48
FM 2334 GLT	1573	2079	39.65%	52.38%	\$0.5520	\$868.47	\$218.25	41	3	38	3.6	31.4	81.7	\$ 1,086.72
DP 1555 B2RF	1599	2016	39.42%	49.69%	\$0.5360	\$857.28	\$211.70	41	3	35	4.1	29.4	80.5	\$ 1,068.98
PHY 312 WRF	1625	2252	37.65%	52.19%	\$0.5080	\$825.45	\$236.47	51	4	37	4.1	29.2	82.5	\$ 1,061.93
PHY 499 WRF	1637	2188	38.85%	51.92%	\$0.5040	\$825.22	\$229.76	51	3	35	4.0	29.0	81.4	\$ 1,054.98
DG 3635 B2XF	1512	1999	38.86%	51.38%	\$0.5275	\$797.37	\$209.85	41	2	35	3.9	29.3	78.6	\$ 1,007.22
ST 5517 GLTP	1460	2116	37.63%	54.57%	\$0.5285	\$771.42	\$222.22	41	3	35	3.6	30.2	78.2	\$993.64
ST 5020 GLT	1382	1947	37.48%	52.79%	\$0.5530	\$764.41	\$204.43	41	3	38	3.9	31.0	81.3	\$968.84
NG 4689 B2XF	1390	2111	36.80%	55.88%	\$0.5350	\$743.82	\$221.66	41	1	35	3.9	28.9	81.5	\$965.48
CG 3885 B2XF	1440	1919	38.45%	51.27%	\$0.5250	\$755.81	\$201.54	41	3	34	3.9	27.3	80.1	\$957.34
Average	1567	2118	38.72%	52.38%	\$0.5342	\$837.15	\$222.36	-	-	36	3.8	29.6	80.7	\$ 1,059.50
Max.	1792	2404	40.66%	55.88%	\$0.5635	\$1,009.83	\$252.39	-	-	39	4.1	31.4	82.5	\$ 1,258.60
Min.	1382	1919	36.80%	49.69%	\$0.5040	\$743.82	\$201.54	-	-	34	3.3	27.3	78.2	\$957.34

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

<sup>1</sup>Lint Values were calculated using the 2017 Upland Cotton Loan Valuation Model from Cotton Incorporated

Gross Seed Return based on \$135/ton

For Questions Contact: Brad Easterling

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## Result Demonstration Report

### 2017 Grain Sorghum Variety Trial

Cooperator: Michael & Allen Fuchs

Brad Easterling, EA-IPM, Glasscock, Reagan, Upton Counties

Chase McPhaul, CEA-AG, Reagan County

Ronnie Schnell, State Cropping Specialist

### Glasscock County

#### Summary

Seven grain sorghum varieties were replicated 3 times in a RCB design by producers Michael and Allen Fuchs on April 11, 2017 in Glasscock County. Yields ranged from a high of 2,841 lbs/ac for Pioneer 86G32 to a low of 1,937 lbs/ac for Pioneer 85G01. Test weights ran from 59.1 for DKS 37-07 to 55.23 for DKS 45-43. These varieties were raised under normal dryland grain sorghum 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 grains to be planted. Also note that this was an unusually wet spring for the St. Lawrence area as well as a year of early high heat and little rainfall. Not all of the varieties in this trial were tolerant to sugarcane aphid, however; sugarcane aphid pressure was low in this trial.

#### Objective

Grain production has not been at the forefront of cropping systems in the tri-county area. Many producers have recently begun planting grains for the rotational benefits that they receive when rotated with cotton and to diversify their farming operations. New varieties of sorghum 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 sorghum with more established varieties that have been successfully grown under varying weather conditions in Glasscock County.

#### Materials and Methods

Varieties were planted in three replications 8 rows by 1550 feet long on April, 11, 2017 following cotton at a rate of 22,052 sds/per acre. Moisture at the time of establishment was decent and all seed came up fine. Rain wasn't until about June, although totals showed

more than one inch of rain for the month, many rains were of less than one tenth of an inch and the temperature was in excess of 100°. Temperatures during flowering were above 103° on 5 different days. This contributed to reduced yields. The plots were harvested on August 28, 2017, weighed on platform scales and samples taken to the Glasscock County Co-op and tested for moisture and test weight.

### Rainfall

April – 2.37	June – 1.20	August – 1.4
May – 1.21	July – 1.14	Total – 7.32

### Results and Discussion

As seen in Table 1, grain yields ranged from a high of 2,841 lbs/ac for Pioneer 86G32 to a low of 1,937 lbs/ac Pioneer 85G01. Percent Moisture varied from a low of 12.60% for BH 3616, to a high of 14.27% for Sorghum Partners SP 73B12. All of the Sorghum Partners treatments were slightly above the allowable % moisture level and the yields were adjusted accordingly. Test weights ranged from a high of 59.1 for DKS 37-07, to a low of 55.23 for DKS 45-43. Sugarcane aphid (SCA) was not a significant factor in the trial this year. SCA moved into the trial in mid-August, but levels remained fairly low.

### Conclusions

Grain sorghum can be grown in the St. Lawrence area, but proper variety selection, fertility, and moisture are keys. As was seen in this trial, dryland with a well-timed rain can lead to some above average yields.

### 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.

## Michael & Allan Fuchs Dryland Sorghum Trial

Variety	% Moisture	Test WT.	Adjusted Yield		SCA TOL.
			Per Acre	Maturity	
Pn 86G32	13.40	58.1	2841	MEDIUM	
DKS 37-07	13.10	59.1	2730	MED-EARLY	*
BH 3616	12.60	56.7	2444	EARLY	*
DKS 45-43	13.10	55.2	2230		
SP 7715	14.20	58.8	2183	MED-FULL	*
SP 73B12	14.27	57.9	1974	MED-FULL	*
Pn 85G01	12.67	56.9	1937	MED-FULL	

Table 1.



# Result Demonstration Report

## FERTILIZING DRYLAND COTTON

Cooperator: SAMMY KELLERMEIRER

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

Glasscock County

### SUMMARY

The treatment with 0 lbs of 20-10-0/ac had a Gross Return of \$283.15/ac compared to \$280.02 and \$280.14 for the 100 lbs/ac and 200 lbs/ac respectively. These figures are before figuring in the price of fertilizer and application costs.

### OBJECTIVE

Fertilizing dryland cotton in West Texas is somewhat of a hit or miss proposition as rainfall is needed in order to achieve plant uptake of the fertilizer.

### MATERIALS AND METHODS

The field used for this test was dryland on 40" centers. The field was split into 3 different treatments which were each 24 rows wide by 1950 feet long and replicated 3 times. The treatments were 100 lbs/ac which were 9 gallons of 20-10-0, 200 lbs/ac, which were 18 gallons of 20-10-0, and an untreated check.

### RESULTS AND DISCUSSION

Although not great, there were some differences in treatments between the rates. The 100 lb/ac treatment yielded the highest with 440 lbs of lint per acre compared to a low of 415 lbs/ac for the 200 lb/ac treatment. However, the 200 lb/ac treatment had the highest loan value at \$.5155 compared to \$.4795 for the 100 lb/ac treatment.

### CONCLUSIONS

As seen in Table 1, there is very little difference in all three treatments. Rainfall was almost non-existent during the growing season from mid-June through the end of the growing season. This is likely the reason for the lack in difference between treatments. Also, all replications were harvested together. There may have been a couple of individual differences emerge had the

treatments been harvested individually. However, the average of the 3 replications still show no difference.

### **ACKNOWLEDGMENTS**

The authors would like to thank Mr. Sammy Kellermeirer for cooperating in this demonstration and for donating all of the fertilizer.

## **2017 Cotton Fertility Trial**

Producer:	<b>Sammy Kellermeirer</b>	Plant Date:	5/12/2017
Name of County:	Glasscock	Harvest Date:	10/16/2017
Design:	Dryland Solid	Herbicide:	
		Fertility:	20-10-0



Variety	Yield Per Acre		% Turnout		Loan Value	Lint Gross Return	Seed Gross Return	Color	Leaf	Staple	Mic	Strength	Unif.	Gross Return (\$/acre) <sup>1</sup>
	Lint	Seed	Lint	Seed										
<b>0</b>	430	635	36.79%	54.23%	\$0.5030	\$216.53	\$66.62	42	4	35	3.8	26.0	80.0	\$283.15
<b>100/ 9 gal</b>	440	656	36.42%	54.26%	\$0.4795	\$211.14	\$68.88	43	4	35	3.8	26.8	81.5	\$280.02
<b>200/ 18 gal</b>	415	631	35.29%	53.71%	\$0.5155	\$213.84	\$66.30	42	3	36	3.9	26.3	80.2	\$280.14
<b>Average</b>	429	641	36.17%	54.07%	\$0.4993	\$213.83	\$67.27	-	-	35	3.8	26.4	80.6	\$281.10
<b>Max.</b>	440	656	36.79%	54.26%	\$0.5155	\$216.53	\$68.88	-	-	36	3.9	26.8	81.5	\$283.15
<b>Min.</b>	415	631	35.29%	53.71%	\$0.4795	\$211.14	\$66.30	-	-	35	3.8	26.0	80.0	\$280.02

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

<sup>1</sup>Lint Values were calculated using the 2017 Upland Cotton Loan Valuation Model from Cotton Incorporated

Gross Seed Return based on \$135/ton

For Questions Contact: Brad Easterling





## St. Lawrence Multi-year Irrigated Variety Trial Rankings 2014-2017

	2014		2015		2016				2017		14-17	
<u>Irrigated</u>	Ri. Half	Bales	Fuchs	Bales	Evridge	N. Half.	Egg.	Bales	Fuchs	Schaefer	Avg	# Trials
PHY 444 WRF			2		9	1	3	4	2	3	3.43	7
NG 3406 B2XF				4	6		6	2			4.50	4
FM 2334 GLT	3		3	2	8	5	13	7	4	1	5.11	9
DP 1219 B2RF	1	2	6		3		11	9			5.33	6
PHY 333 WRF	7	5	8	6		2		5			5.50	6
DP 1646 B2XF					12	3	9		3	6	6.60	5
FM 2484 B2F	9	14	4	7	1		5			8	6.86	7
ST 4946 GLB2	15	7	5	1	2	4	15				7.00	7
DP 1549 B2XF			12		14	6	2		1	9	7.33	6
DG 3635 B2XF				12		8		6	8	4	7.60	5
FM 2007 GLT			1	5	7	12	14				7.80	5
PHY 495 W3RF			9		13	10	10	1			8.60	5
PHY 339 WRF	5	13	7	11							9.00	4
DG 2570 B2RF	12	4		15	5	9	12				9.50	6
ST 4747 GLB2	8	10	14	9							10.25	4
PHY 499 WRF	10		13		10	14	8		7		10.33	6
FM 1911 GLT								3			3.00	1
NG 4111 RF				3							3.00	1
DG 3385 B2XF							1	8			4.50	2
DP 1555 B2RF									5	5	5.00	2
DP 1321 B2RF	2	9									5.50	2
PHY 764 WRF					4	7					5.50	2
ST 5517 GLTP									9	2	5.50	2
PHY 312 WRF									6		6.00	1
NG 5315 B2RF	4	1		16							7.00	3
ST 5115 GLT						11	4				7.50	2
DG 2285 B2RF	14	3									8.50	2
ST 5020 GLT									10	7	8.50	2
NG 1511 B2RF	11	8		8							9.00	3
FM 1944 GLB2	6	12									9.00	2
ST 4848 GLT							7	12			9.50	2
NG 3306 B2RF	13	6		10							9.67	3
DP 1612 B2XF								10			10.00	1
NG 4689 B2XF									11		11.00	1
DP 1522 B2XF			10					13			11.50	2
NG 5007 B2XF				13						10	11.50	2
CG 3885 B2XF									12		12.00	1
FM 1900 GLT			11	14							12.50	2
FM 1830 GLT	16	11						11			12.67	3
NG 4545 B2XF					11		16				13.50	2
ST 4949 GLT						13		15			14.00	2
FM 9170 B2RF		15									15.00	1
PHY 222 WRF							17	14			15.50	2
DG 2355 B2RF				17							17.00	1

# of Varieties in Trial

16

15

14

17

14

14

17

15

12

10

10 Trials - 144 entries

44 Varieties

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

Results from 2016 due to the fact that we did not have any Dryland Trials harvested in 2017

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 GLTIII				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 1646 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

\$/ac is Gross Lint Return + Gross Seed Return using each year's Upland Loan Valuation Model from Cotton Incorporated along with local seed price from Co-ops.

## 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 B2R	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

44 Varieties



## Result Demonstration Report

### 2017 Grain Sorghum Variety Trail

Cooperator: David Meyer

**Brad Easterling, EA-IPM, Glasscock, Reagan, Upton Counties**

**Chase McPhaul, CEA-AG, Reagan County**

**Ronnie Schnell, State Cropping Specialist**

#### **Summary**

Seven grain sorghum varieties were replicated 3 times in a RCB design by producer David Meyer on April 7, 2017 in Reagan County. Yields ranged from a high of 3,037 lbs/ac for Pioneer 86G32 to a low of 2,609 lbs/ac for Pioneer 85G01. These varieties were raised under normal irrigated grain sorghum 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 grains to be planted. Also note unusually wet spring for Reagan County area as well as a year of early high heat and little rainfall. Not all of the varieties in this trail were tolerant to sugarcane aphid, however; sugarcane aphid pressure was low in this trail.

#### **Objective**

Grain production has not been at the forefront of cropping systems in the tri-county area. Many producers have recently begun planting grains for the rotational benefits that they receive when rotated with cotton and to diversify their farming operations. New varieties of sorghum 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 sorghum with more established varieties that have been successfully grown under varying weather conditions in Reagan County.

#### **Materials and Methods**

Varieties were planted in three replications 12 rows by 1729 feet long on April, 7 2017. Moisture at the time of establishment was decent and all seed came up fine. Rainfall was decent through spring and first of summer. Temperatures during flowering were above 103 degrees on 5 different days. This contributed to reduce yields. The plots were harvested on September 5, 2017, weighed on platform scales and samples taken to the Glasscock County Co-op and tested for moisture and test weight.

## **Results and Discussion**

The results showed below in Table 1, grain yields ranged from a high of 3,037 lbs/ac to a low of 2,609 lbs/ac. Percent moisture varied from a high 11.3 % to a low of 10.5 %. All of the Sorghum Partners treatments were slightly above the % moisture level and yields were adjusted accordingly. Test weights were ranged from a high 58.8 to a low 57.7. SAC moved into the trail in mid-August, but levels remained fairly low.

**Table 1.**

<b>Variety</b>	<b>% Moisture</b>	<b>Test WT.</b>	<b>Per Acre</b>	<b>Maturity</b>	<b>SCATOL</b>
PN86G32	10.8	58.0	3037	MEDIUM	
DKS37-07	10.9	57.7	3011	Med- EARLY	*
BH 3616	10.5	57.7	2919	EARLY	*
DKS45-43	11.2	58.2	2845	MED- EARLY	
SP 73B12	11.3	58.2	2675	MED-FULL	*
SP 7715	11.2	58.8	2635	MED-FULL	*
PN85G01	10.9	58.8	2609	MED-FULL	

## **Conclusions**

Significant differences in sorghum yields can be attained from particular varieties when planted at the optimum time, at the proper seeding rate, and fertilized and irrigated properly. We see some of these differences in this demonstration. We would like to continue this research to try and determine which varieties are better adapted and suited for the West Texas Environment.

## **Acknowledgements**

The authors would like to thank Mr. David Meyer for cooperating in this demonstration. Also, would like to thank the seed companies who donated the seed.



## Result Demonstration Report

### EVALUATION OF COTTON VARIETIES

COOPERATOR:

Cole Schwartz

COORDINATORS

Brad Easterling, Extension Agent - IPM, Glasscock, Reagan, Upton Counties  
Cody Trimble, County Extension Agent - Agriculture, Glasscock County  
Chase McPhaul, County Extension Agent – Agriculture, Reagan County  
Raymond Quigg, County Extension Agent – Agriculture, Upton County

Glasscock County

### OBJECTIVE

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

### MATERIALS AND METHODS

Cotton varieties are provided from PhytoGen to evaluate for yield in our production area. These projects are planted and 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

Glasscock Co.

Planting Date 5-24-17

Harvest Date 10-30-17

8 Row Solid Pattern

40" Row Spacing

35,000 Seeding Rate

1.5 GPM Drip Irrigation

<u>Variety</u>	<u>Yield</u>	<u>Turn Out</u>	<u>Length</u>	<u>Strength</u>	<u>Unif</u>	<u>Mic</u>	<u>Loan</u>	<u>Crop Value</u>
PHY 444 WRF	1321	0.43	38.0	30.6	84.4	4.5	0.4952	\$654
PHY 312 WRF	1298	0.39	36.7	29.7	84.0	4.9	0.4932	\$640
PHY 330 W3FE	1297	0.41	35.9	30.1	83.8	4.9	0.4917	\$638
PHY 490 W3FE	1265	0.40	35.2	31.0	83.8	4.9	0.4906	\$620
FM 2334 GLT	1263	0.42	37.3	30.6	83.9	4.9	0.4866	\$615
PHY 340 W3FE	1296	0.40	35.8	30.0	83.5	5.0	0.4739	\$615
PHY 300 W3FE	1263	0.41	35.1	29.7	83.0	4.9	0.4792	\$605
PHY 450 W3FE	1158	0.39	34.6	32.3	83.3	5.2	0.4569	\$529
Mean	1270	0.406	36.1	30.5	83.7	4.9	0.4834	\$614



# APT Trial Report

Darrel Halfmann

2017



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

State Texas County Glasscock  
 Irrigated Yes Planting Date 5/25/2017  
 Soil Type Silty Clay Loam Harvest Date 11/1/2017

Variety	Yield	Lint %	Mic	Length	Staple	Strength	Unif	Loan Value	Value/A
FM 2574GLT	1542	41.0%	4.2	1.19	38.1	28.8	80.9	54.19	\$836
PHY 444 WRF	1442	40.0%	3.5	1.18	37.8	26.4	81.0	52.09	\$751
ST 5020GLT	1373	34.0%	3.6	1.13	36.2	26.4	79.3	52.74	\$724
FM 2498GLT	1330	37.0%	3.7	1.15	36.8	26.7	78.6	53.19	\$708
ST 4946GLB2	1329	34.0%	3.9	1.14	36.5	28.1	81.4	53.59	\$712
FM 1830GLT	1261	36.0%	3.9	1.18	37.8	27.6	80.0	54.19	\$684
FM 1900GLT	1193	33.0%	3.9	1.18	37.8	27.9	80.3	54.19	\$646
FM 2334GLT	1166	35.0%	4.0	1.18	37.8	28.4	80.2	54.19	\$632
ST 5517GLTP	1068	33.0%	3.4	1.08	34.6	27.3	79.1	49.59	\$529
Trial Average:	1300	0.36	3.8	1.16	37.0	27.5	80.1	53.11	\$691



# APT Trial Report

Hoelscher

2017



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

State Texas County Glasscock  
 Irrigated No Planting Date 6/12/2017  
 Soil Type Silty Clay Loam Harvest Date 11/28/2017

Variety	Yield	Lint %	Mic	Length	Staple	Strength	Unif	Loan Value	Value/A
FM 2498GLT	852	34.6%	4.5	1.05	33.6	26.4	78.6	49.64	\$423
FM 2334GLT	811	35.6%	4.1	1.14	36.5	29.6	80.2	53.69	\$436
FM 1830GLT	785	37.3%	4.5	1.13	36.2	28.2	79.9	52.74	\$414
ST 5517GLTP	782	32.4%	3.9	1.11	35.5	28.5	79.1	52.84	\$413
ST 5020GLT	775	34.3%	4.2	1.12	35.8	28.4	80.7	53.59	\$415
FM 2574GLT	703	36.5%	4.1	1.11	35.5	29.4	80.4	53.69	\$378
FM 2007GLT	702	32.5%	4.0	1.10	35.2	27.6	79.0	51.69	\$363
FM 1900GLT	682	33.9%	3.7	1.10	35.2	29.4	78.8	51.69	\$352
Trial Average:	762	0.35	4.1	1.11	35.4	28.4	79.6	52.45	\$399

## 2017 NexGen Trial Yield Report

<b>Cooperator:</b> Keith Braden	<b>Planted:</b> 5/25/2017	<b>Tillage:</b> Conventional
<b>City:</b> Midkiff	<b>Harvested:</b> 12/1/2017	<b>Soil Texture:</b> Clay Loam
<b>County:</b> Upton	<b>Row Width:</b> 40 inch spacing	<b>Irrigation:</b> Drip



Product Data			Crop Values \$/Crop Yield			* Fiber Characteristics					
Entry	Brand	Product Name	Crop Value (\$/Acre)	Lint Yield (Lbs/Acre)	Loan Price (per Lb)	Strength					
						Staple (32nds)	Length (inches)	(g/tex)	Micronaire	% Uniformity	% Lin t
1	NexGen	NG 4545 B2XF	\$909.06	1707	53.24	35.5	1.11	28.9	4.3	81.2	42.7
2	NexGen	NG 3517 B2XF	\$878.25	1612	54.49	36.8	1.15	33.3	4.9	85.0	42.0
3	NexGen	NG 3406 B2XF	\$880.18	1635	53.84	37.4	1.17	30.4	4.7	81.5	44.8
4	NexGen	NG 4689 B2XF	\$854.18	1585	53.89	37.1	1.16	30.1	4.5	82.8	43.0
5	NexGen	NG 3699 B2XF	\$842.55	1549	54.39	38.1	1.19	33.1	4.6	83.1	41.5
6	NexGen	NG 4601 B2XF	\$802.58	1505	53.34	36.5	1.14	29.9	4.3	81.9	45.3
7	NexGen	NG 5007 B2XF w/Indigo	\$796.13	1525	52.19	35.2	1.10	28.3	4.4	83.6	44.1
8	NexGen	NG 4545 B2XF w/Indigo	\$732.39	1443	50.74	34.9	1.09	25.1	4.5	83.2	43.2
9	NexGen	NG 5007 B2XF	\$727.00	1347	53.99	36.2	1.13	34.5	5.0	83.9	43.0
10	NexGen	NG 5711 B3XF **	\$686.45	1362	50.39	35.2	1.10	33.1	5.1	82.5	45.2
<b>TEST AVERAGE</b>			<b>\$810.88</b>	<b>1527</b>	<b>53.05</b>	<b>36.3</b>	<b>1.13</b>	<b>30.7</b>	<b>4.6</b>	<b>82.9</b>	<b>43.5</b>

\* Value Calculation based on \$0.4949/Lb(+/-) discounts/premiums from the 2017 USDA Loan Chart (Ranked by Value \$/A). Due to ginning with tabletop gin, all varieties were assigned a base color (31) and leaf grade (3).

\*\* New variety for 2018. Tested as AMX 1711 B3XF.

**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 years whenever possible.