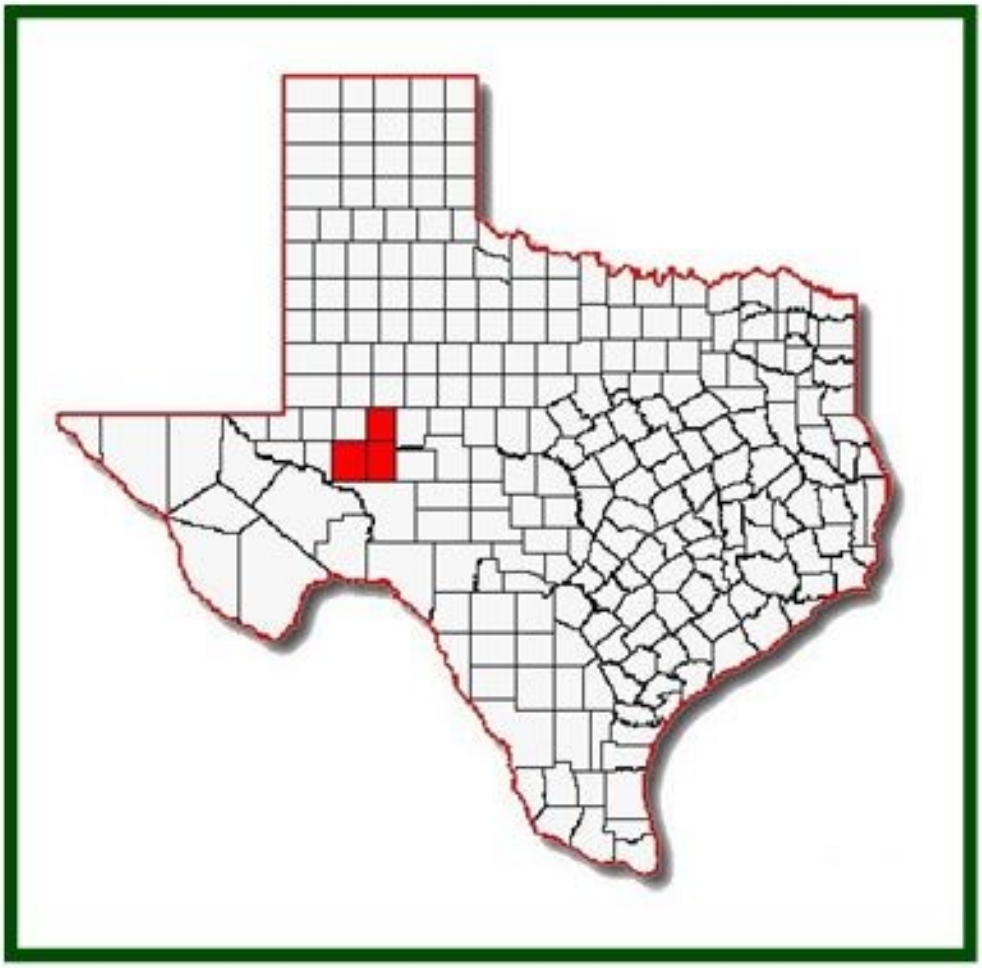
INTEGRATED PEST MANAGEMENT



Glasscock, Reagan & Upton
IPM Program
2022

TEXAS IPM
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GLASSCOCK, REAGAN, and UPTON COUNTIES PEST MANAGEMENT PROGRAM

2022

ANNUAL REPORT

Prepared by:

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in cooperation with

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and

TEXAS PEST MANAGEMENT ASSOCIATION

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 demonstrations 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 2022 program.

Donald and Whit Braden
Chris Hirt
Darrell Halfmann
Russell Halfmann
Vance Smith
Jeremy and Travis Gully
Anthony Hoelscher

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
Robert Pritz…….West Region Program Leader, San Angelo
Dr. David Kerns……...Professor and Extension IPM Coordinator, College Station
Dr. Phillip Kaufman……...Head of Department of Entomology, College Station
Greg Wilson…….……...Extension Program Specialist, Entomology, Districts 6 & 7, San Angelo
Dr. Reagan Noland……...Extension Agronomist, District 7, San Angelo
Mrs. Katie Lewis……..Assist. Professor, Dept. of Soil and Crop, District 2, Lubbock
Mr. Cody Trimble...…….Glasscock County Extension Agent-Agriculture, Garden City
Mr. Chase McPhaul……...…Reagan County Extension Agent-Agriculture, Big Lake
Mr. Raymond Quigg……...Upton County Extension Agent-Agriculture, Rankin
Mrs. Rebekah Ross…….Glasscock County Assist. County Extension Agent-Agriculture, Garden City
Ms. Erica Rauschuber……...……...Secretary to the Extension Agent-IPM, Garden City

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RESULT DEMONSTRATIONS

INTRODUCTION

Cotton is the major crop produced in the three counties. Additionally, acreages of wheat, grain sorghum, corn pecans, and watermelons are grown. There were no acres of dryland acres harvested as all acres were failed due to extreme drought conditions. Irrigated acres are projected as close as possible with numbers from FSA; however these numbers appear to be larger than what was harvested, especially in Glasscock and Reagan counties.

Several pests attack cotton in the St. Lawrence Area. Fleahoppers are generally the major pest, along with stink bugs. Grasshoppers, thrips, and spider mites are occasional pests in the area. The major weed problems in the area are glyphosate tolerant pigweed, silverleaf nightshade, hog potato (mesquite weed), morning glory, field bindweed, bundle flower, devil's claw, prairie sunflower, dwarf crownbeard, and other perennial weeds. 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. Successful crops can not be produced in this area on irrigation alone as timely rainfall during the growing season is required. High winds, hail and blowing sand can cause severe damage to cotton. However, the temperature and length of growing season are sufficient for good cotton growth.

The pest management annual report includes information concerning the survey scouting program, the pest situation and result demonstrations for 2022. I hope it will be informative to all persons interested in the program.

Table 1

RAINFALL FOR 2021	BIGLAKE	LOMAX	ST. LAWRENCE
JANUARY	0.13	0.03	0.19
FEBUARY	0.33	0.36	0.49
MARCH	0.23	0.02	0.00
APRIL	0.19	0.00	0.07
MAY	0.13	0.27	0.14
JUNE	0.67	1.47	0.76
JULY	0.71	0.15	0.17
AUGUST	1.72	3.58	1.71
SEPTEMBER	0.33	0.23	0.77
OCTOBER	2.34	1.79	2.55
NOVEMBER	2.46	1.32	1.41
DECEMBER	0.19	0.10	0.07
TOTAL	**9.43**	**9.32**	**8.33**

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 area. 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……..….Pat Pelzel
Vice-President……....Wayne Jansa
Secretary-Treasurer…….Chris Hirt
.....Ricky Halfmann
.....Garrett Kellermeier
.....Jeremy Gully
.....Bo Eggemeyer
.....Bart Belew
.....Russell Halfmann
.....Wilbert Braden

The St. Lawrence Cotton Growers Association and the Texas IPM Program would like to thank Wilbert Braden for his service to Glasscock, Reagan, and Upton Counties and the cotton industry of the entire St. Lawrence area. Wilbert has spent nearly 20 years serving as Executive Director of the St. Lawrence Cotton Growers Association as well as the National Cotton Council representative. He has also attended numerous other meetings throughout the cotton industry representing St. Lawrence including the American Cotton Producers, the Texas Pest Management Association, and the Texas Cotton Producers among others. Wilbert, we thank you for your service.

TABLE 2

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

FUNDS ON HAND, JANUARY 1, 2022		$6142.85
BUDGET RECEIPTS		
UNIT SCOUTING CONTRIBUTIONS	$0.00	
INTEREST INCOME	$0.00	
MISCELLANEOUS INCOME	$0.00	
TOTAL INCOME		$0.00
SCOUTING EXPENSE		
MEMBERSHIP PAID		$2280.00
TOTAL SCOUTING EXPENSE		$2,280.00
FUNDS ON HAND, DECEMBER 31, 2022		$3862.85

SCOUTING PROGRAM ACTIVITIES

A “survey type” pest management program is operated in the St. Lawrence Area. The program has been in operation for the past forty-three 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.

Determining an accurate number on acres this season has been difficult. According to FSA, the St. Lawrence Area covering Glasscock, Reagan and Upton Counties had a total of 205,661 acres of cotton planted. However they showed to have 40,947 acres harvested including 25,947 acres of dryland and 15,000 acres of irrigated. Not all acres may have been turned into FSA due to seed rebate eligibility.

Due to the extremely low number of acres this season as well as essentially no result demonstrations to monitor, I scouted all of the acres in St. Lawrence myself this season. Therefore we did not hire any scouts to check cotton this season.

PEST SITUATION

Pest populations in 2022 were low. Thrips numbers were very low with basically no wheat or other hosts present including weed hosts present to harbor early season thrips. Fleahopper populations were very light as well and only a couple of fields were treated in the area. Again, this was due to the fact that the severe drought eliminated all host plants early in the season, therefore the fleahoppers did not have a food source available to reproduce on and build up to damaging numbers. Stink bugs were at low levels this season with a few fields having to have applications made. This was still a much lower number of treatments than in an average year.

Irrigated cotton had average to slightly above average yields. The primary reason yields were this good is because fewer acres were watered and GPA was increased on acres that were watered. All dryland cotton acreage was failed.

Total Planted Acres in Glasscock, Reagan, and Upton Counties

TABLE 3

Glasscock	2022	2021	2020	2019
Cotton	9,597*	111,946	111,430	109,625
Corn	130	464	898	463
Pecans	1,067	1,065	935	941
Sorghum	242	2,086	1,521	1,056
Watermelon	68	449	295	216
Wheat	7,377*	11,399	15,159	11,510

Reagan	2022	2021	2020	2019
Cotton	4,450*	44,471	48,829	45,821
Corn	399	558	656	379
Pecans	137	218	109	112
Sorghum	17	1,093	1,729	461
Watermelon	107	97	47	23
Wheat	3,821*	10,625	7,158	7,118

Upton	2022	2021	2020	2019
Cotton	953*	13,706	12,730	12,200
Corn	59	95	52	85
Pecans	90	76	90	90
Sorghum	0	1,516	375	62
Watermelon	42	26	0	0
Wheat	5,490*	7,412	7,725	8,578

Cotton Production in the St. Lawrence Area

TABLE 4

	Total	Glasscock	Midkiff
2001	47,351	34,129	13,222
2002	55,450	37,870	17,580
2003	76,662	55,732	20,930
2004	118,266	86,966	31,300
2005	207,480	155,889	51,591
2006	77,424	56,949	20,475
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	97,804	66,310	31,494
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
2018	56,632	40,115	16,517
2019	125,005	85,018	39,987
2020	59,729	41,177	18,552
2021	250,018	163,257	86,761
2022	34,214	23,191	11,023
Total	2,554,925	1,792,318	762,607
AVG	116,133	81,469	34,664
10 YR Avg	122,138	83,543	38,595
20 YR Avg	122,606	86,016	36,590

EDUCATIONAL ACTIVITIES

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. The emphasis is directed to training producers, spouses, and family members to scout insects. 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 5, below, is an overview of educational activities.

Educational Activities

TABLE 5

Producer Contacts	3,716
Turnrow Meetings	20
Newsletters	10
Tours	1
Audio Updates	20
Miscellaneous Crop Producer Meetings	8
Youth Presentations	4
Total Persons Provided Scout Training	2
Result Demonstrations	8
Pest Management Committee Meetings	6

Result Demonstration Reports

Result Demonstration Report

ST LAWRENCE RACE TRIALS

Cooperators: Vance Smith

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties
Reagan Noland, Extension Agronomist, San Angelo

Objective

Variety selection is the most important decision that a producer must make every season. Once this decision has been made there is no way to correct or change the decision or outcome. Variety decisions should start with the agronomic characteristics such as yield, maturity and fiber quality first and then match the transgenic technology with the highest pest management priority second. According to USDA, transgenic varieties made up more than 99% of all cotton varieties planted in Texas in 2020, consistent with the past decade or more. Bt varieties accounted for approximately 93% of varieties planted, which is down slightly from the 90% planted in 2019. 58% of varieties planted were XtendFlex varieties while just over 23% were Enlist and 9% were Liberty Link.

Texas A&M AgriLife Extension RACE Trials offer an opportunity to evaluate each companies' best varieties and technology head-to-head under the same conditions to evaluate relatively new varieties for a given area. These trials are conducted across the State in nearly 60 trials both irrigated and dryland with many of the same varieties in many of the trials. There all multiple trials in most all regions in which data can be pooled from to obtain results.

The following is data from Glasscock, Pecos, and Tom Green Counties irrigated trials.

We would like to thank Americot/NexGen, BASF, Bayer, and Phytogen for providing seed for these trials.

Table 6

Glasscock County

Variety	Lint (lbs/ac)	Seed Yield (lbs/ ac)	Seed Yield (lbs/ bale)	Turnout (%)	Mic	Length (in)*	Strength (g/tex)	Uniformity	Loan Value (¢/ lb)	Color	Leaf	Stand (%)
DP2239	807	762	452	42.2	4.89	**1.21**	29.0	82.1	**55.2**	31-2,31-2,31-1	4,3,3	74.6
NG4190	783	845	519	40.4	4.91	1.13	28.6	81.9	53.1	41-1,31-2,41-1	4,3,3	87.1
PHY332	782	898	550	39.2	5.15	1.16	29.7	82.0	**53.4**	31-1,31-1,31-2	3,3,4	92.6
ST4993	762	735	463	**42.5**	**5.40**	1.08	**30.1**	82.0	51.2	31-2,31-2,31-1	4,1,2	82.2
FM2398	757	818	519	41.8	**5.57**	1.13	29.6	82.6	52.7	31-1,31-1,31-1	2,3,3	84.4
PHY411	755	772	493	40.5	**5.42**	1.06	29.4	80.6	48.9	31-2,31-2,31-2	3,3,4	79.0
NG4098	746	**1011**	**652**	35.4	4.53	**1.22**	**31.5**	80.9	**55.1**	41-1,31-2,41-2	5,4,6	75.1
DP2012	736	848	555	39.9	4.94	1.13	29.4	82.2	**54.0**	31-2,31-1,31-1	2,3,3	82.2
P > F	0.65	**0.0009**	**0.0006**	**0.0009**	**0.0037**	**<.0001**	**0.071**	0.23	**0.001**	-	-	0.31
CV	6.1	6.8	7.7	3.6	5.1	1.7	3.2	1.2	2.6	-	-	11.0
LSD	67.6	81.8	56.5	0.02	0.4	0.03	1.3	1.4	1.9	-	-	13.1
mean	766	836	526	40.3	5.10	1.14	29.7	81.8	52.9	-	-	82.2

Table 7

Pecos County

Variety	Lint (lbs/ac)	Seed Yield (lbs/ ac)	Seed Yield (lbs/ bale)	Turnout (%)	Mic	Length (in)*	Strength (g/tex)	Uniformity	Loan Value (¢/ lb)	Color	Leaf	Stand (%)
ST4993	**1494**	1566	502	**39.2**	**4.98**	1.12	**30.6**	**82.4**	54.6	31-1,21-2,31-1	4,3,1	78.3
PHY411	**1466**	1390	456	37.2	**4.95**	1.10	29.2	81.7	53.4	41-1,31-2,31-1	3,6,4	83.0
NG4190	**1451**	1400	464	38.2	4.67	**1.17**	27.8	**83.0**	55.8	41-1,21-2,31-1	4,2,3	83.0
NG4098	**1401**	**1845**	**631**	32.3	4.19	**1.16**	**30.2**	79.1	52.6	51-3,41-3,41-3	8,5,5	81.9
FM2398	1394	1517	523	38.0	**5.04**	**1.15**	28.3	82.1	54.5	31-1,31-1,31-1	3,3,2	79.3
DP2239	1385	1325	459	38.5	**4.88**	**1.18**	28.4	81.7	55.5	31-1,31-1,31-1	4,3,4	86.1
PHY332	1382	1585	550	35.6	4.77	1.14	28.9	81.6	55.6	31-3,31-3,31-3	4,2,3	76.2
DP2012	1314	1362	498	37.1	4.67	1.14	28.8	81.4	56.0	31-1,21-2,31-1	3,3,5	87.6
P > F	**0.077**	**0.0005**	**0.0001**	**<.0001**	**<.0001**	**0.0008**	**0.0007**	**0.0001**	0.17	-	-	0.39
CV	4.6	6.9	6.1	2.6	2.3	1.5	2.1	0.7	2.9	-	-	7.6
LSD	92.3	148.1	44.6	0.01	0.2	0.02	0.9	0.9	2.3	-	-	9.0
mean	1411	1499	511	37.0	4.77	1.15	29.0	81.6	54.8	-	-	81.9

Table 8

Tom Green County

Variety	Lint (lbs/ac)	Seed Yield (lbs/ ac)	Seed Yield (lbs/ bale)	Turnout (%)	Mic	Length (in)*	Strength (g/tex)	Uniformity	Loan Value (¢/ lb)	Color	Leaf	Stand (%)
ST4993	**540**	**631**	564	35.2	**4.59**	1.03	29.3	**80.5**	50.0	41-1,41-1,41-1	4,5,3	71.6
DP2239	**480**	583	583	33.7	4.12	**1.11**	28.9	**79.8**	**52.2**	41-2,41-1,51-1	6,4,5	78.5
FM2398	478	**695**	**699**	32.7	**4.48**	**1.09**	28.7	**80.9**	**51.9**	51-1,41-2,41-1	7,6,5	69.9
NG4098	442	**670**	**727**	29.3	3.80	1.08	**31.0**	78.1	49.1	51-1,51-1,51-1	8,7,7	79.1
PHY332	426	621	**696**	30.8	4.18	**1.09**	28.3	**79.9**	52.9	41-2,41-2,41-1	6,5,5	83.1
PHY411	424	498	567	31.1	**4.31**	1.00	28.9	**79.9**	47.2	51-1,41-2,51-1	7,4,6	71.1
NG4190	399	470	570	31.3	3.75	**1.09**	27.6	**79.9**	**50.6**	51-1,41-2,41-2	5,4,5	71.6
DP2012	382	542	**681**	29.6	3.90	1.06	27.9	79.3	**51.8**	41-1,41-2,41-1	5,6,4	73.4
P > F	**0.011**	**0.021**	**0.0001**	**<.0001**	**0.0023**	**<.0001**	**0.057**	**0.034**	**0.012**	-	-	0.72
CV	9.1	12.5	5.9	3.3	5.3	1.3	3.9	1.1	3.2	-	-	13.9
LSD	59.2	106.0	54.3	0.01	0.3	0.02	1.6	1.2	2.3	-	-	15.0
mean	446	589	636	31.7	4.14	1.07	28.8	79.8	50.7	-	-	74.8

Table 9

All Sites Combined

Variety	Establishment (%)	Lint yield	Turnout	Seed yield	Seed / bale	Mic	Length	Strength	Unif.	Loan
ST4993	77.4	**932 a**	**0.39 a**	977 bc	510 c	**5.0 a**	1.08 d	30 b	**81.6 ab**	51.9 b
DP2239	79.7	**891 ab**	**0.38 ab**	890 d	498 c	4.6 bc	**1.17 a**	28.8 c	**81.2 a-d**	**54.3 a**
PHY411	77.7	882 b	0.36 de	887 d	505 c	4.9 a	1.05 e	29.2 c	80.7 d	49.8 c
NG4190	80.6	877 b	0.37 cd	905 cd	518 c	4.4 d	1.13 b	28 d	**81.6 a-c**	**53.1 ab**
FM2398	77.9	876 b	0.38 bc	1010 b	581 b	**5.0 a**	1.13 bc	28.9 c	**81.9 a**	**53.1 ab**
PHY332	84	864 b	0.35 f	1034 b	599 b	4.7 b	1.13 b	29 c	81.2 b-d	**54 a**
NG4098	78.7	863 b	0.32 g	**1175 a**	**670 a**	4.2 e	**1.15 a**	**30.9 a**	79.4 e	52.3 b
DP2012	81.1	810 c	0.36 ef	917 cd	578 b	4.5 cd	1.11 c	28.7 cd	81 cd	**54 a**
P > F	0.797	0.012	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

Result Demonstration Report

EVALUATION OF COTTON VARIETIES

Cooperators: Darrell Halfmann, Allan, Michael Fuchs, Chris Hirt, Anthony Hoelscher

Dr. Reagan Noland, Extension Agronomist, San Angelo
Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties
Chase McPhaul, CEA-AG, Reagan County

Objective

To evaluate new 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. These trials also give us a chance to look at varieties from companies at least one year prior to their commercialization and release into the market.

Materials and Methods

Cotton varieties are provided from all the major companies to evaluate their varieties before commercial release.

Results and Discussion

The following pages contain two APT trials, and one Innovation trial. The FACT trial from Bayer was not harvested.

Acknowledgements

The authors would like to thank:

Darrell Halfmann for help with one of the APT trials.
The Fuchs' for help with one of the APT trials.
Chris Hirt for help with the FACT trial.
Anthony Hoelscher for help with the Innovation trial.

They would also like to thank BASF, Bayer, and Phytogen for providing seed for these trials.

Table 10

2022 Data Collection Sheet

2022 Halfmann Garden City Irr

BASF Agronomic Solutions Advisor:

Noble Laminack

(325) 716-8839

noble.laminack@basf.com

Grower:	Darrell Halfmann	Planting Date:	5/24/2022	Latitude:	31.70062
Agronomist:	Rick Minzenmayer	Planting Window:	Ideal	Longitude:	-101.60197
Region:	Southwest	Harvest Date:	11/15/2022	Elevation:	
State:	TX	Soil Texture:	Silty Clay Loam	Row Spacing (in.):	40
County:	Glasscock	Irrigation:	Irrigated	Seeding Rate:	33000
Nearest City:	Garden City	Tillage:	Minimum	# of Rows:	8
Test Type:	APT	Area 1:	RP-OK	Regional Lat:	South
ASA:	Noble Laminack	Area 2:	WTX	RKN Infest.:	None
Trial Name:	2022 Halfmann Garden City Irr			Date 1st Harvest Aid:	

Brand	Variety	Seedcotton Weight (lbs)	Harvested Row Length (feet)	Seedcotton Yield (lbs/A)	Lint % (GTO)	Lint Yield (lbs/A)	Micronaire	Length	Strength	Uniformity	Color	Leaf	Loan Value	Value / A
Stoneville	**ST 4993B3XF**	1610	818	3215	0.372	**1196**	4.01	1.20	27.8	82.0	11.0	1.0	57.60	**$689**
Stoneville	**ST 4595B3XF**	1460	818	2916	0.385	**1122**	**3.98**	1.15	27.0	81.7	11.0	1.0	57.40	**$644**
FiberMax	**FM 2498GLT**	1890	818	3774	0.391	**1476**	4.08	1.18	28.9	81.3	21.0	2.0	57.55	**$849**
FiberMax	**FM 2398GLTP**	1290	818	2576	0.391	**1007**	4.19	1.15	26.9	81.7	11.0	1.0	57.40	**$578**
FiberMax	**FM 1730GLTP**	1430	818	2856	0.402	**1148**	4.25	1.18	28.4	82.6	11.0	2.0	57.60	**$661**
DeltaPine	**DP 2012 B3XF**	1500	818	2995	0.398	**1192**	4.14	1.19	27.8	82.1	21.0	3.0	57.10	**$681**
BASF	**BX 2392B3XF**	1150	818	2296	0.406	**932**	4.67	1.14	30.1	82.7	11.0	1.0	57.55	**$537**
BASF	**BX 2394B3XF**	1430	818	2856	0.379	**1082**	4.87	1.18	28.8	82.4	21.0	1.0	57.50	**$622**
BASF	**BX 2396B3XF**	1200	818	2396	0.407	**975**	4.25	1.18	28.3	82.2	21.0	1.0	57.60	**$562**
BASF	**BX 2398B3XF**	920	818	1837	0.379	**696**	4.28	1.21	30.5	83.1	21.0	2.0	57.85	**$403**
	Test Mean	1388	818	2772	0.391	**1083**	4.27	1.18	28.5	82.2	16.0	1.5	57.52	**$623**

BASF Regional Agronomist:

Rick Minzenmayer

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Table 11

2022 Data Collection Sheet

2022 Fuchs Garden City Irr

BASF Agronomic Solutions Advisor:

Noble Laminack

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Grower:	Allen Fuchs	Planting Date:	6/10/2022	Latitude:	31.5542N
Agronomist:	Rick Minzenmayer	Planting Window:	Late	Longitude:	101.5881W
Region:	Southwest	Harvest Date:	11/18/2022	Elevation:	
State:	TX	Soil Texture:	Silty Clay Loam	Row Spacing (in.):	40
County:	Reagan	Irrigation:	Irrigated	Seeding Rate:	32000
Nearest City:	St Lawrence	Tillage:	Conventional	# of Rows:	6
Test Type:	APT	Area 1:	RP-OK	Regional Lat:	South
ASA:	Noble Laminack	Area 2:	WTX	RKN Infest.:	None
Trial Name:	2022 Fuchs St Lawrence Irr			Date 1st Harvest Aid:	

Brand	Variety	Seedcotton Weight (lbs)	Harvested Row Length (feet)	Seedcotton Yield (lbs/A)	Lint % (GTO)	Lint Yield (lbs/A)	Micronaire	Length	Strength	Uniformity	Color	Leaf	Loan Value	Value / A
BASF	**BX 2392B3XF**	2306	936	5366	0.368	**1975**	3.70	1.19	27.6	82.6	21.0	1.0	57.60	**$1,137**
BASF	**BX 2394B3XF**	2330	936	5422	0.366	**1984**	**3.51**	1.17	28.3	81.4	21.0	2.0	57.30	**$1,137**
BASF	**BX 2396B3XF**	2542	936	5915	0.373	**2206**	3.16	1.22	27.2	80.9	21.0	2.0	50.80	**$1,121**
BASF	**BX 2398B3XF**	2382	936	5543	0.384	**2128**	3.59	1.23	27.1	82.3	11.0	2.0	57.50	**$1,224**
DeltaPine	**DP 2012 B3XF**	2254	936	5245	0.367	**1925**	4.01	1.20	27.7	83.2	21.0	2.0	57.65	**$1,110**
Stoneville	**ST 4595B3XF**	2442	936	5682	0.367	**2085**	3.91	1.21	27.3	82.1	31.0	3.0	56.75	**$1,183**
Stoneville	**ST 4993B3XF**	2368	936	5510	0.397	**2188**	4.37	1.19	30.4	84.0	21.0	3.0	57.30	**$1,253**
FiberMax	**FM 2498GLT**	2600	936	6050	0.382	**2311**	4.33	1.21	28.2	82.9	21.0	2.0	57.50	**$1,329**
FiberMax	**FM 2398GLTP**	2786	936	6483	0.386	**2502**	4.73	1.19	28.5	83.1	21.0	1.0	57.55	**$1,440**
FiberMax	**FM 1730GLTP**	2220	936	5166	0.369	**1906**	4.14	1.20	30.8	83.3	21.0	3.0	57.35	**$1,093**
	Test Mean	2423	936	5638	0.376	**2121**	3.95	1.20	28.3	82.6	21.0	2.1	56.73	**$1,203**

BASF Regional Agronomist:

Rick Minzenmayer

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Table 12

W3FE Innovation Trial

Grower Cooperator:	Anthony Hoelscher	Planting Date:	6/6/2022
PhytoGen:	Scott Fuchs	Seed Treatments:	TRiO
Location:	Stiles, TX	GPS Lat:	31.4601125
2Replicates	2	GPS Long:	-101.5655059
Plot Size:	8 rows x '990 to 1195'	Elevation:	2665
Row Spacing	40"	Harvest Date:	11/7/2022
Beds:	Yes	*Managed as RF/LL*	*Stripper harvested*
Previous Crop:	cotton		
Soil Type:	Conger Shallow		
Irrigation:	Drip		

Sorted by Lint

Variety		Lint Yield *(lbs/A)*	Turnout *(%)*	Mic	Length *(in)*	Staple *(1/32 in)*	Strength *(g/tex)*	Uniformity *(%)*	Color Grades	Leaf Grade	Loan Value *($/lb)*	Lint Value *($/A)*
PHY400W3FE		**1661**	**37.8**	3.9	1.15	36.8	28.9	81.8	**21,21**	3.0	0.5628	**$935**
PHY332W3FE		1592	37.3	4.1	1.18	37.6	28.4	82.3	**21,21**	**1.5**	**0.5710**	$909
PHY350W3FE		1588	36.4	3.9	1.15	36.8	28.0	82.3	**21,21**	2.0	0.5703	$905
PHY444WRF		1559	**37.8**	3.8	**1.21**	**38.6**	29.3	82.4	**21,21**	2.5	0.5693	$887
PHY443W3FE		1558	37.7	**4.3**	1.11	35.4	**29.5**	**82.9**	**21,21**	2.0	0.5585	$871
PHY415W3FE		1539	36.1	3.8	1.18	37.6	28.8	82.2	21,31	3.0	0.5643	$868
PHY411W3FE		1505	37.7	4.2	1.12	35.7	**29.5**	81.9	31,31	2.5	0.5535	$833
PHY480W3FE		1347	35.9	3.9	1.14	36.5	28.0	82.8	21,31	2.0	0.5655	$762
Mean		*1543*	*37.1*	*4.0*	*1.15*	*36.9*	*28.8*	*82.3*		*2.3*	*0.5644*	*$871*

Visit PhytoGenCottonseed.com for the latest data and information.
DO NOT USE THIS OR ANY OTHER DATA FROM A LIMITED NUMBER OF TRIALS AS A SIGNIFICANT FACTOR IN PRODUCT SELECTION.
Product responses are variable and subject to any number of environmental, disease and pest pressures. Please use this information as only part of your product positioning decision. Refer to a PhytoGen Cotton Development Specialist for the latest information and complete listing of traits and scores for each product and for product placement and management suggestions specific to your region and local conditions.

Result Demonstration Report

PERENNIAL GRASS CONTROL DEMONSTRATION

Cooperators: Travis Gully

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties
Reagan Noland, Extension Agronomist, San Angelo

Summary

This test was initiated in 2021 in the Concho Valley and has since been modified and conducted in St. Lawrence as perennial grasses are becoming a larger issue and more difficult to control each year. With more fields being placed in no-till as well as the increased use of auxin herbicides each season, grasses are escaping control and becoming established in cotton throughout the area. These weeds are easier to control early in the first season, but after becoming established and especially after the first season they become difficult and costly to control. Most all of these weeds are being brought in from pastures and include: white tridens, windmill grass, tumble windmill grass, and several grama grass species.

Objective

The objective of this trial is to find a product or products which will effectively control perennial grass species, preferably over the top of cotton, have a plant back window which will allow producers to plant cotton the following season, and hopefully manage it cost effectively.

Material and Methods

On September 22, 2022 a trial was initiated to determine which chemicals might provide some control of perennial grass in a field planted to haygrazer after taking out the cotton crop earlier in the season. Ten individual plants were treated with each chemical as well as 80 inch strips 400-500 feet long. Individual plant treatments were targeting white tridens, the most dominant weed species in the field. The strips were measuring over all control of weeds present.

Individual plant treatment was randomized throughout the area and treated with a backpack sprayer applying 12 gallons per acre with TT 11002 tips at 35 psi. Application was made between 9:00 am and

12:00 pm with a temperature of 93°. The wind was out of the southwest at 9.5 mph and the humidity was 15%. Ratings for this trial were based on visual ratings based on percent of damage on a 1-10 scale with 1 being no damage and 10 being completely burned down. With these being perennial grasses, true control will not be determined until the spring on 2023.

In this trial only glyphosate and Intensity are labeled to be applied over the top of cotton. All products have a short enough rotational restriction to plant cotton the following year with the exception of triclopyr.

Results and Discussion

Ratings were taken on two separate days, 9/30, 7 days after treatment (DAT), and 11/10, 50 DAT. No further rating were able to be taken as we had a hard freeze on 11/12 and all plants showed desiccation afterwards. All products showed improved damage 50 days after application versus the 7 day rating. Glyphosate showed the best damage ratings both 7 and 50 DAT with 8.10 and 8.60 respectively. We have seen this in previous trials in the past, however, control the following spring has not been as high. Armezon (topramezone) had damage ratings slightly below that of glyphosate with 7.20 at 50 DAT. Intensity (clethodim) is a product that has been used for grass control in cotton. It had a 50 day rating of 5.50.

Table 13

Treatment	9/30/22	11/10/2022
	7 DAT	50 DAT
1 - PowerMax	8.10	8.60
2 - Intensity	3.89	5.78
3 - Armezon	1.60	7.20
4 - Explorer	2.30	4.00
5 - Explorer/Remedy	1.10	4.80
6 - Acclaim Extra	1.50	4.90
NIS		
7 - Acclaim Extra	2.70	5.90
COC		

Conclusion

Perennial grass control is an increasing weed increasing weed issue in the St. Lawrence area. Fortunately there are options available to control these weeds. Product, timing, tank-mix options, and number of applications still need to be looked at as glyphosate alone will not control them in one or even two applications and yield loss to these weeds can be great. Control measures need to be found.

Acknowledgements

The authors would like to thank Mr. Travis Gully for cooperating in this demonstration.

Result Demonstration Report

HOG POTATO CONTROL DEMONSTRATION

Cooperators: Jeremy Gully and County Facility

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties
Reagan Noland, Extension Agronomist, San Angelo

Summary

Two tests were initiated in the fall of 2021 and the fall of 2022 in Reagan and Glasscock Counties to look at chemicals to try and control hog potato (mesquite weed). Hog potato is a difficult to control perennial legume that is predominant in pastureland in West Texas. Ten tank mixes were used in the Reagan County trial, but due to the extreme drought very little control was seen. Five products were used in the Glasscock County trial, Tordon, Milestone, Remedy, Staredown, and Reclaim. All of the products except Staredown have shown to work on hog potato in the past, however they are labeled for pasture and range. Staredown is labeled for crop use, primarily grains.

Objective

The objective of this trial is to find a product or products which will effectively control hog potato, preferably over the top of cotton, have a plant back window which will allow producers to plant cotton the following season, and hopefully manage it cost effectively.

Material and Methods

On December 3, 2021 a trial was initiated to determine which chemicals might provide some control of hog potato in a field of sorghum stubble. Ten treatments were made 4 rows by 50 feet long and replicated 3 times in a complete block randomization. The weed pressure was fairly uniform.

Materials were applied with a Spyder sprayer applying 15 gpa at 40 psi. Nozzles were TT 11002 and were 20 inches apart. The temperature was 73° with a wind speed out of the west of 5 mph and 37% humidity at 12:15 pm.

A second trial was established on September 22, 2022 at the county facility just west of Garden City. Five treatments were made 40 inches by 10 feet long and replicated 3 times in a complete block randomization. The weed pressure was fairly uniform.

Materials were applied with a backpack sprayer at 12 gpa at 35 psi. Nozzles were TT 11002 and were 20 inches apart. The temperature was 93° with a wind speed out of the southwest of 9.5 mph and 15% humidity at 2:30 pm.

Results and Discussion

For the first trial the 2,4-D, dicamba, glyphosate, and paraquat burned everything down quickly with paraquat burning the hog potato too quickly before any chemical could be taken up by the plant. Unfortunately for this trial no rain was ever received to activate the Reflex for residual control. By early spring all plots had greened up and no control could be seen and therefore no ratings were taken. The producer made two applications of dicamba during the summer of 2022 and had fair control considering the dry conditions. Plots will be monitored to determine control.

For the second trial, plots were rated 7, 14, and 50 days after treatment (DAT) on a 1-10 scale with 1 being no damage and 10 showing completely burned down. After 50 DAT the Remedy and Tordon treatments were basically identical with 9.7 and 9.3 ratings respectively and nearly no green leaf material showing. The Staredown product showed very good control with a 3 rep average of 9.0.

Table 14

2022-2023 Hogpotato - County Barn
Glasscock Co

Trt No.	Treatment Name	Rate	Rate Unit	Rep	9/30/2022 7 DAT	10/7/2022 14 DAT	11/10/2022 50 DAT
1	Tordon	32	fl oz/a		2.7	2.3	9.3
2	Milestone	7	fl oz/a		3.3	2.3	8.3
3	Remedy	16	fl oz/a		3.7	2.3	9.7
4	Staredown	11	fl oz/a		4.3	4.0	9.0
5	Reclaim	21	fl oz/a		4.0	4.3	7.7
6	Check				1.7	1.3	1.3

1 = no control

10 = complete control

Conclusion

Hog potato has been a difficult to control weed for decades and is an issue not just in St. Lawrence but elsewhere around the Rolling Plains and High Plains areas. There are options available to control this weed however most all products with any decent control are generally not labeled for cotton and also come with long plant back restrictions which will damage cotton or other crops following the application. Finding viable, on label options for controlling hog potato will both save producers money on chemicals and make them money due to yield losses from weed competition and chemical damage from herbicide residue in the soil. Control measures need to be found.

Acknowledgements

The authors would like to thank Mr. Jeremy Gully for cooperating in this demonstration.

Result Demonstration Report

IRRIGATED CORN VARIETY DEMONSTRATION

Cooperators: Donald and Whit Braden

Brad Easterling, EA-IPM, Glasscock, Reagan, and Upton Counties
Rebekah Ross, Assistant CEA, Glasscock County

Summary

Seven corn varieties were planted in a strip trial under similar field conditions on March 29th. Yields ranged from a high of 88 Bu/ac for DKC 67-94 to a low of 67 Bu/ac for P1718. Test weights ran from 55.5 for DKC 67-94 to 59.7 for DKC 69-99 which were much lower than typical, primarily due to drought conditions. These varieties were raised under normal irrigated corn production practices although extreme drought severely impacted yields. 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 corn to be planted. Soil moisture was limited at planting due to the dry conditions, however, emergence was better than anticipated. Significant rainfall was not received until June 1-3 and this only amounted to 0.5". Another 0.3" was received at the end of the month. This was the most rain received during any month throughout the entire growing season. The temperatures and wind were well above average the entire growing season. All yields have been adjusted to 15.5% moisture.

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 as well as to add residue for no-till or minimum tillage farming operations. New varieties of corn 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 corn with more established varieties that have been successfully grown under varying weather conditions in the St. Lawrence area.

Material and Methods

Varieties were planted in 24 rows strips in a solid row pattern 1418 feet long on March 20th following cotton. The seeding rate was 22,000 seed per acre and the irrigation capacity was about 2.0 gallons at the beginning of the season. Moisture at the time of establishment was limited, however, emergence was good despite the dry conditions. The plots were harvested on August 16th, weighed on platform scales and samples taken to the Glasscock County Co-op and tested for moisture and test weight.

Results and Discussion

As seen in Table 1, grain yields ranged from a high of 88 bu/ac for Dekalb DKC 67-94 to a low of 67 bu/ac for Pioneer P1718. Percent Moisture varied from a low of 9.6% for Pioneer P1718, to a high of 13.8% for Dekalb DKC 69-99. Test weights ranged from a high of 59.7 for Dekalb DKC 69-99, to a low of 55.5 for Dekalb DKC 67-94. All varieties showed very good emergence, especially considering the soil moisture conditions, however as the soil began drying out shortly after planting and before the water could cycle back around the plots began to stress some. Combine this with the abnormally high seasonal temperatures and the early season vigor ratings were low for all varieties in this test.

Conclusions

Corn can be grown in the St. Lawrence area, but proper variety selection, fertility, and moisture are keys. As was see in this trial, corn can be grown with a minimal amount of water and no rain, however the economics must be considered as well as the benefits of crop rotation on the land.

Acknowledgements

The authors would like to thank Mr. Donald and Whit Braden for cooperating in this demonstration.

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

Bayer CropScience who provided DKC 67-94, DKC 69-99, DKC 70-27.

Corteva who provided P1612, P1718, P1847.

Wilbur-Ellis who provided the Integra 6533.

Table 15

2022 Braden Corn Variety Trial

Producer: **2022 Braden Corn**
Name of County: Reagan
Design: Irrigated

Plant Date: 3/29/2022
Harvest Date: 8/16/2022

Brand	Variety	% Moisture	Test WT.	Yield bu/ per Acre	Maturity
Dekalb	**DKC 67-94**	9.7	55.5	88	**117**
Pioneer	**P1622**	9.9	59.0	75	**116**
Dekalb	**DKC 69-99**	13.8	59.7	73	**119**
Integra	**6533**	11.9	55.8	70	**115**
Pioneer	**P1847**	10.0	59.6	69	**118**
Dekalb	**DKC 70-27**	11.2	57.4	69	**120**
Pioneer	**P1718**	9.6	57.2	67	**117**
Average		**11**	**58**	**73**	
Max.		**14**	**60**	**88**	
Min.		**10**	**56**	**67**	

Yields adjusted to 15.5% moisture

For Questions Contact: Brad Easterling, EA-IPM, Glasscock, Reagan, Upton Counties

Table 16

VARIETY	EMERGE	Final Plant Stand	VIGOR
DKC 67-94	7	25,500	4
P1622	8	26,500	4
DKC 69-99	6	23,500	5
6533	7	26,500	4
P1847	7	26,500	4
DKC 70-27	7	25,500	3
P1718	8	27,500	4

Early Season Ratings

EMERGE- Scale of 1-10 where 10 is excellent.

VIGOR - Scale of 1-10 where 10 is excellent.