## Aug 31, 2019 Vol. 3 Issue 5



#### Inside this issue:

General Area Crop 1
Progress

Wheat Variety Research 2-3
Summary

4 —Year SRWW Varie- 4 ty Summary

SRWW Maturity Table 5

SRWW and HRWW 6-7 Comparison and Picks

Hunt Co Hay Day Flyer 8

Calendar of Events 9

David Drake
Extension—IPM
drdrake@ag.tamu.edu
903-468-3295

# North East Texas IPM (Integrated Pest Management)

# General Area Crop Progress

Corn and Grain Sorghum—have been harvested at Greenville Farm and in most of the area. Reported corn yields have been around 100 bushels/ac. Aflatoxin doesn't appear to have been a major issue but most producers treat with atoxigenic strains to control it. Grain sorghum yields have been more variable. Sugarcane aphids came in late season but were not a major harvest issue. The aphids are currently infesting most of the Johnson grass in pastures and fence rows. Below is an aerial photo of the corn and grain sorghum harvest at Greenville farm with cotton and soybean plots on the far left. Data on corn and grain sorghum yields will be posted on http://arietytesting.tamu.edu as soon as it is available.



**Soybean**— harvest has started in earlier planted and faster maturing varieties. The plots at Greenville still show a wide range of maturities but a good yield is anticipated. Image below.



**Cotton**—late season rains will revive the cotton that was at cut out. The crop has been mostly made as blooms on August 31st have about a 50/50 chance of making a harvestable boll. Most of the cotton is behind normal and no fields have cracked bolls yet.

**Fall Armyworm -**No moths or worms have been found in weekly traps and sweeps at two location in Commerce. Dr. Knutson reported a slight jump in moths following our late August rain. Trapping and field sweeps should continue.

Wheat—Enclosed is a 4 year summary report of wheat variety trial information. Also included is an Extension statewide list of "Picks" that are considered the best performing varieties in AgriLife trials. For those interested in wheat forage production the location trials have a been rated for visual grazing potential. There is also a beardless SRWW variety, Progeny Seed # Turbo, that has shown good grain yields in the past two yrs.

# 2018-2019 Wheat Research Summary Variety Evaluation and Selection

#### Selecting the Best Wheat Varieties for Your Farm

Varietal selection is one of the most important decisions a wheat grower will make. The best adapted varieties can produce up to 50 percent more grain than the poorly adapted ones. In addition, bushel weights vary widely among varieties, and it is important to select varieties with both high yield potential and good bushel weights.

This summary is intended to assist in that decision making process. Pay particular attention to table 2, as it represents the performance of varieties over a four year period. Yield stability is the most important single factor in selecting varieties for your farm. Growing conditions vary widely from year to year, and the varieties that perform well over multiple years are the safest choices.

#### 2018-2019 in Review

The 2018-2019 growing season was atypical for the production of soft red winter wheat in the Northern Texas Blacklands. The 2018 fall growing conditions were extremely wet. Abundant moisture in September and October delayed planting until mid-late November. Due to these wet conditions, we were only able to plant one location for variety testing. Continued rainfall through December and cold temperatures slowed the progression of the wheat. The wheat continued to progress slowly with above normal rainfall and below normal temperatures during the winter months. Most of the growers produced yields averaging 60 to 70 bushels per acre.

Stripe rust pressure was extremely low for this growing season, even a highly susceptible variety used for the fungicide trial did not sustain much damage from this disease. Leaf rust pressure was moderate and arrived late this growing season. Bacterial streak was observed in many of the varieties this season.

None of the experiments in this summary were sprayed with a foliar fungicide. This phase of our program is intended to measure genetic resistance to foliar plant diseases.

This paper is divided into two sections. The first will address the performance and characteristics of soft red winter wheat varieties (SRWWs) in this region. The second section is a summary of the performance of soft red winter wheat varieties in comparison with selected hard red winter wheat varieties (HRWWs).

In 2018-2019, we planted studies in one location: Howe. We were able to successfully harvest this location in a timely manner.

#### 2019 SRWW Highlight Summary

- The Howe location was planted on November 17 and harvested on June 21.
- AGS 2055 was the top yielder in the Howe location.
- Syngenta Coker 9553 had the highest test weight in this location.
- Leaf rust (*Puccinia recondita*) infection levels were moderate this growing season for this location. Stripe rust (*Puccinia strii-formis*) infection pressure was very low and was only found on a few varieties. An initial observation was made in late April for leaf and stripe rust infection levels with only trace amounts of stripe rust found and no leaf rust pressure. A final observation in May was made with low levels of stripe rust and moderate levels of leaf rust pressure.
- Bacterial streak was observed in many of the varieties this growing season.
- Septoria leaf spot, glume blotch, and head scab were also observed in the nursery.

See Result Table 1. on the next page.

Yield stability is the most important consideration when selecting wheat varieties to plant in northeast Texas. It is risky to make varietal choices based on one year's results because weather conditions and disease pressures vary greatly from year to year. Therefore, performance over a number of years and locations is the best indicator of varietal stability. However, it is difficult to test the same varieties for multiple years since new varieties are being introduced. The companies do not always submit the same varieties.

Table 1: Summary - Performance of Selected Soft Red Winter Wheat Varieties in Howe, Texas. 2019

	Llood	Ганада	Handing	Initial	Doctorial	Final	Final	Dlaut	Tool	Yield
VARIETIES	Head Type	Forage Rating <sup>1</sup> (1-3)	Heading Date (Julian)  April 11-25, 2019	Initial Stripe Rust Infection - FL (%)	Bacterial Streak <sup>2</sup> (0-4)	Final Stripe Rust Infection - FL (%)	Final Leaf Rust Infection - FL (%)	Plant Height (inches)	Test Weight (lb/bu)	(bu/ac)
AGS 2024	Awned	2.8 ab	108.7 cd	0.0 a	2.0 b-e	0.2 a	0.0 a	33.3 e-h	58.4 ab	77.1 a
AGS 2038	Awned	2.1 c-g	115.2 a	0.2 a	1.0 a	1.2 a	0.0 a	39.8 a	58.0 abc	67.3 c-g
AGS 2055	Awned	2.4 bcd	108.0 de	0.0 a	1.0 a	0.5 a	0.0 a	34.0 d-g	56.1 e-j	77.5 a
Go Wheat GW 2032	Awned	2.9 a	106.7 efg	0.0 a	1.7 a-d	0.0 a	0.0 a	33.0 f-i	57.6 bcd	74.3 ab
TX-EL2	Awned	2.6 abc	108.2 cde	0.0 a	2.8 fgh	0.0 a	25.0 cde	34.5 c-f	55.6 g-l	64.8 d-j
TX15D9579	Awned	2.8 ab	106.0 fgh	0.0 a	1.8 a-d	0.0 a	0.3 a	33.5 e-h	56.4 e-h	69.0 b-f
TX15D9597	Awned	2.8 ab	106.0 fgh	0.0 a	2.0 b-e	0.0 a	4.0 a	34.0 d-g	58.4 ab	70.2 b-e
#Fury	Awnless	2.3 cde	107.7 def	0.0 a	1.0 a	1.3 a	0.0 a	32.2 hij	56.4 e-h	70.9 bcd
#Turbo	Awnless	2.6 abc	106.7 efg	0.0 a	1.0 a	0.0 a	0.3 a	32.0 hij	57.3 cde	71.7 a-d
Blackland 1812	Awned	1.5 h	113.0 b	0.0 a	1.0 a	1.7 a	2.0 a	37.5 b	56.4 e-h	63.1 e-j
Blackland 1881	Awned	1.8 e-h	109.3 cd	0.5 a	2.2 c-f	5.0 a	17.5 bc	35.5 cd	56.0 f-k	62.9 e-j
Blackland 1885	Awned	1.6 gh	113.0 b	0.0 a	1.5 a-d	0.5 a	2.3 a	34.0 d-g	56.1 e-j	64.4 d-j
Pioneer 25R40	Awned	1.9 d-h	111.8 b	0.0 a	2.0 b-e	2.3 a	25.0 cde	31.0 j	55.5 h-l	69.0 b-f
Pioneer 25R61	Awned	2.2 c-f	108.0 de	6.3 b	2.3 d-g	30.0 с	17.5 bc	34.8 c-f	54.9 jkl	61.8 f-j
Pioneer 75R74	Awned	1.8 e-h	110.0 с	0.5 a	1.7 a-d	0.7 a	21.7 cd	32.7 ghi	55.3 h-l	66.0 d-h
Syngenta SY Viper	Awnless	2.0 d-h	106.5 efg	0.0 a	2.0 b-e	0.8 a	31.7 de	36.2 bc	56.5 e-h	67.3 c-g
Syngenta Coker 9553	Awned	2.4 bcd	105.3 gh	0.0 a	3.0 gh	2.2 a	26.7 cde	35.5 cd	58.8 a	67.1 d-g
Dyna-Gro 9012	Awned	2.2 c-f	108.2 cde	0.0 a	3.3 h	0.8 a	50.0 f	33.5 e-h	56.2 e-j	58.6 ijk
Dyna-Gro 9522	Awned	1.9 d-h	112.0 b	0.0 a	2.2 c-f	1.7 a	52.5 f	35.0 cde	53.8 m	58.2 jk
Dyna-Gro 9701	Awned	1.7 fgh	113.0 b	0.0 a	1.3 abc	1.8 a	3.0 a	37.2 b	56.0 e-k	62.5 f-j
Dyna-Gro 9811	Awned	2.2 c-f	108.2 cde	0.0 a	1.5 a-d	0.3 a	5.5 a	34.5 c-f	55.2 h-l	64.7 d-j
Dyna-Gro TV 8861	Awned	1.9 d-h	112.0 b	0.0 a	2.3 d-g	0.2 a	55.0 f	34.2 d-g	54.5 l	59.6 h-k
USG 3118	Tip-Awned	3.0 a	105.3 gh	0.0 a	1.5 a-d	0.0 a	0.0 a	30.7 j	57.0 c-f	65.9 d-h
USG 3120	Awned	2.3 cde	104.5 h	1.5 a	2.7 efg	9.3 b	4.7 a	34.8 c-f	56.8 d-g	61.4 g-j
USG 3201	Awned	2.0 d-h	109.2 cd	0.0 a	3.3 h	1.3 a	45.8 f	33.3 e-h	55.9 f-k	55.3 kl
USG 3228	Awnless	2.6 abc	107.7 def	0.0 a	2.2 c-f	0.5 a	6.8 ab	32.2 hij	54.8 kl	65.3 d-i
USG 3329	Awned	1.8 e-h	109.0 cd	0.0 a	2.0 b-e	0.7 a	31.7 de	35.2 cde	51.4 o	52.9 l
USG 3404	Awned	1.8 e-h	111.8 b	0.0 a	1.8 a-d	0.2 a	7.8 ab	34.5 c-f	56.1 e-j	65.6 d-i
USG 3458	Awnless	1.5 h	108.2 cde	0.0 a	2.3 d-g	1.8 a	34.2 e	32.0 hij	53.0 n	52.4 l
USG 3536	Awned	1.7 fgh	112.2 b	0.0 a	1.2 ab	0.7 a	3.5 a	37.3 b	56.0 e-k	61.7 f-j
USG 3539	Awned	1.9 d-h	113.5 b	0.0 a	1.7 a-d	0.0 a	2.2 a	33.5 e-h	56.2 e-i	67.4 c-g
USG 3895	Awned	2.6 abc	107.7 def	0.0 a	1.5 a-d	0.0 a	10.8 ab	31.5 ij	55.0 i-l	73.9 abc
Monsanto WB-2418	Tip-Awned	2.0 d-h	108.2 cde	0.0 a	1.0 a	1.3 a	1.7 a	35.2 cde	57.2 c-f	65.7 d-i
	LSD (P = .05)	0.31	1.14	1.01	0.47	3.04	8.17	1.06	0.75	4.15
	CV (%)	12.42	0.91	324.91	22.15	131.43	48.33	2.72	1.17	5.57
	GRAND MEAN	2.17	109.11	0.27	1.87	2.03	14.82	34.18	56.02	65.32

Forage Rating Scale: 1 – low lying/small/less upright growth; thin leaf blade, 2 – medium/moderate upright growth; moderate leaf blade, 3 – tall/excellent upright growth; wide leaf blade

<sup>&</sup>lt;sup>2</sup>Bacterial Streak Rating Scale: 0 – None; 1 – lower ¼ of plant; 2 – lower to middle portion of plant; 3 – ¾ of plant affected; 4 – flag leaf affected

The table below represents a summary of the top performing varieties over a four year period from 2016-2019.

Table 2: Four Year Summary – Mean Yield (Bushels/Acre) of the Top Soft Red Winter Wheat Varieties in Northeast Texas. 2016 (Leonard), 2017 (Leonard and Greenville), 2018 (Bailey and Greenville), and 2019 (Howe)

Varieties	4-Year	3-Year	2-Year	2019
USG 3895	80.5	77.0	83.2	73.9
AGS 2055	79.8	80.2	86.4	77.5
USG 3536	76.1	71.7	78.9	61.7
Syngenta SY Viper	75.0	69.7	81.1	67.3
TX-EL2	74.7	71.0	75.5	64.8
Dyna-Gro 9012	73.9	68.6	78.4	58.6
USG 3404	73.3	70.2	81.3	65.6
USG 3201	72.9	68.8	76.1	55.3
Pioneer 25R40	71.7	75.2	85.9	69.0
Syngenta Coker 9553	71.4	66.6	72.6	67.1
USG 3120	62.2	68.0	75.2	61.4
Dyna-Gro TV 8861 <sup>1</sup>	51.3	56.4	48.3	59.6
AGS 2024		74.1	84.0	77.1
Dyna-Gro 9522		65.7	76.3	58.2
USG 3228		65.3	77.0	65.3
AGS 2038			84.7	67.3
Dyna-Gro 9701			79.2	62.5
USG 3458			78.1	52.4
USG 3329			77.2	52.9
USG 3118			74.6	65.9
Go Wheat GW 2032				74.3
#Turbo				71.7
#Fury				70.9
USG 3539				67.4
Pioneer 75R74				66.0
Monsanto WB-2418				65.7
Dyna-Gro 9811				64.7
Blackland 1885				64.4
Blackland 1812				63.1
Blackland 1881				62.9
Pioneer 25R61				61.8

<sup>1</sup>previously sold as Terral TV 8861

#### **SRWW Maturity Groups**

Below is a table listing the relative maturities of selected SRWW varieties.

Vai	riety	Maturity Group			
USG	3120	Easter			
USG	3118	Early			
Syngenta Coker 9553	USG 3228				
Syngenta SY Viper	USG 3329				
AGS 2024	USG 3458	Medium			
AGS 2055	#Turbo	Wedium			
Go Wheat GW 2032	#Fury				
TX-EL2					
USG 3201	Dyna-Gro 9012				
USG 3536	Dyna-Gro 9701	Medium Late			
USG 3895					
Pioneer 25R40 USG 3404					
Dyna-Gro 9522	USG 3539	Late			
AGS 2038					

To hedge against weather risks, it would be advisable to plant multiple varieties from more than one maturity group. Start by planting the later maturing varieties, and finish with the earlier ones. The later maturing varieties are less likely to experience freeze damage in March, but are more subject to hot, dry conditions during the grain filling period. The medium early varieties are at more risk from a late freeze, but will likely experience more favorable weather conditions during the grain filling period.

Our research over the past 33 years has shown the optimum planting date in Northeast Texas to be the last week in October through the first week in November. Planting prior to October 25 is not advisable, as it exposes the crop to more potential damage to the Hessian fly, foliar plant diseases, and freeze injury in the spring.

Early maturing varieties are a fit for late planting (after November 15), but are more likely to suffer freeze injury when planted at the normal time. Earlier maturing varieties are better forage producers than later maturing ones, and can be planted earlier if they are grazed. An effective grazing program will delay their maturity.

#### HRWW vs. SRWW Highlight Summary

The Howe location was planted on November 17 and harvested on June 21.

Leaf rust (*Puccinia recondita*) infection levels were moderate this growing season for this location. Stripe rust (*Puccinia strii-formis*) infection pressure was very low and was only found on a few varieties during the growing season. An initial observation was made in late April for leaf and stripe rust infection levels with only trace amounts of stripe rust found and no leaf rust pressure. A final observation in May was made with low levels of stripe rust and moderate levels of leaf rust pressure.

Bacterial streak was observed in many of the varieties this growing season. The HRWWs tended to be more affected than the SRWWs.

The SRWWs produced an average of 13.4 more bushels per acre than the HRWWs at Howe.

HRWW bushel weights averaged 0.4 pounds heavier than SRWWs at the Howe location.

See Table 3. on the next page

#### Texas A&M AgriLife Extension and Research 2019-2020 Wheat Picks List

-					
К	laci	z	ar	٦d	C

Picks List

HRWW	SRWW
Gallagher	AGS 2055
TAM 304	*AGS 2024
WB Cedar	*AGS 2038

Blacklands

Watch List

HRWW SRWW \*WB 4269 GW 2032 WB 4303 # Turbo

Texas A&M AgriLifeExtension, in collaboration with our wheat breeding program colleagues in Texas A&M AgriLife Research, offer this list of wheat varieties for producers. Wheat Picks are based on a minimum of three years of data (and at least two years for a 'Watch List' designation) over multiple locations. These wheat varieties are not strictly a list of recommended wheat grain varieties, but given the data, these are the wheat varietieswe would choose to include on our farm. If you are planting other varieties, and you like them, continue to plant them, but consider trying one of these varieties on some of your acres, especially a variety that complements your other wheat's maturity and insect/disease resistances. For further information, viewTexas A&M AgriLife wheatinfo.at http://varietytesting.tamu.edu/wheat

<sup>\*</sup> WB 4418

<sup>\*</sup> New Selection for 2019-2020.

#### A Comparison of Selected SRWW and HRWWs in the Northern Texas Blacklands

Table 3: Summary - Average Yield and Bushel Weight of Selected Hard and Soft Red Winter Wheat Varieties in Howe, Texas. 2019

VARIETIES	Test Weight (lb/bu)	Yield (bu/ac)
AGS 2024	58.4 ab	77.1 a
AGS 2038	58.0 abc	67.3 b-f
AGS 2055	56.1 e-k	77.5 a
Go Wheat GW 2032	57.6 a-d	74.3 ab
TX-EL2	55.6 f-l	64.8 c-h
TX15D9579	56.4 d-i	69.0 b-e
TX15D9597	58.4 ab	70.2 bcd
#Fury	56.4 d-j	70.9 bc
#Turbo	57.3 b-e	71.7 abc
Blackland 1812	56.4 d-j	63.1 d-i
Blackland 1881	56.0 e-k	62.9 d-i
Blackland 1885	56.1 e-k	64.4 c-h
Pioneer 25R40	55.5 g-l	69.0 b-e
Pioneer 25R61	54.9 j-m	61.8 e-j
Pioneer 75R74	55.3 g-l	66.0 c-g
Syngenta SY Viper	56.5 d-i	67.3 b-f
Syngenta Coker 9553	58.8 a	67.1 b-f
Dyna-Gro 9012	56.2 d-k	58.6 g-l
Dyna-Gro 9522	53.8 mn	58.2 h-l
Dyna-Gro 9701	56.0 e-k	62.5 d-i
Dyna-Gro 9811	55.2 h-l	64.7 c-h
Dyna-Gro TV 8861	54.5 lm	59.6 f-k
USG 3118	57.0 c-f	65.9 c-g
USG 3120	56.8 c-g	61.4 e-j
USG 3201	55.9 e-k	55.3 jkl
USG 3228	54.8 klm	65.3 c-h
USG 3329	51.4 o	52.9 klm
USG 3404	56.1 e-k	65.6 c-h
USG 3458	53.0 n	52.4 lm
USG 3536	56.0 e-k	61.7 e-j
USG 3539	56.2 d-k	67.4 b-f
USG 3895	55.0 i-l	73.9 ab
Monsanto WB-2418	57.2 b-e	65.7 c-h
Monsanto WB-4269 (HRWW)	56.7 c-h	51.8 lm
Monsanto WB-4303 (HRWW)	54.5 lm	56.4 i-l
Monsanto WB-4418 (HRWW)	56.2 d-k	54.7 jkl
Monsanto WB-4515 (HRWW)	57.3 b-e	42.9 n
Monsanto WB-Cedar (HRWW)	55.5 f-l	46.7 mn
TAM 114 <i>(HRWW)</i>	56.7 c-h	52.2 lm
TAM 305 <i>(HRWW)</i>	57.9 abc	51.9 lm
Syngenta Greer (HRWW)	54.3 lm	51.5 lm
Syngenta Grit (HRWW)	56.1 e-k	52.3 lm
Syngenta Monument (HRWW)	56.7 c-h	54.2 kl
Gallagher (HRWW)	58.7 a	56.2 i-l
LSD (P	= .05)	4.39 6.22
GRAND I	MEAN 56.12	61.96



Fletcher Warren Civic Center, Greenville
5:30 - Registration, Analysis Results, Visit Vendors
6:00 - Catered Meal
6:30 - Program and Door Prizes

Free Hay Analysis

Topics: Right to Farm Act and The Importance of Insurance Speakers: Katie Hughes, Hunt County 4-H Member and Riley Carroll Hopkins County 4-H Member

To receive your FREE hay analysis, your sample must be submitted to NET Farmers Coop, Greenville, by August 26.

You MUST have a ticket for the meal (\$5.00).

Tickets are available at the Hunt County Extension Office or NET Farmers Coop, Greenville.

For more information, call Texas A&M
AgriLife Extension at
903-455-9885

Texas A&M AgriLife Extension provides equal opportunities in its programs and employment to all persons, regardless of race, genetic information, veteran status, sexual orientation, or gender identity. color, sex, religion, national origin, disability, age,

The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating

### David R. Drake, Integrated Pest Management (IPM)



Texas A&M AgriLife Extension Texas A&M University—Commerce College of Agricultural Sciences and Natural Resources PO Box 3011 Commerce, TX 75429-3011

Phone: 555-555-5555 Fax: 555-555-5555

Email: someone@example.com

# Calendar

September 13 Ranchers Leasing Workshop—Fort Worth

September 26 Hunt County Hay Day—Greenville

October 30 Dairy Program—Sulphur Springs

November 13 TAMUC College of Ag. & Nat. Res. Networking Night—Commerce

November 15 Collin Co. Range and Pasture Workshop-McKinney

November 21 Pesticide Applicator CEU Training—Rockwall

December 5 Ag. Technology Conference-Commerce

December 10-11 Texas Plant Protection Conference—Bryan

January 8-10, 2020 Beltwide Cotton Conference-San Antonio

The members of Texas A&M AgriLife will provide equal opportunities in programs and activities, education, and employment to all persons regardless of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation or gender identity and will strive to achieve full and equal employment opportunity throughout Texas A&M AgriLife.