North East Texas IPM (Integrated Pest Management)

July 23, 2019

Vol. 3 Issue 4

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General Area Crop Progress

The heat and sunshine have benefited hay producers who are capitalizing on the abundant grass produced from the wet fall and spring. In other crops the wet spots have mostly dried out and soils are cracking. Subsoil moisture is still there but root systems are somewhat shallow having never developed at lower depths from frequent rain events. The corn is maturing rapidly, grain sorghum heads are coloring, and wilting patches of cotton root rot are showing up in soybeans, cotton, and alfalfa. The **Greenville Farm Summer Crops Field Day** is this week, flyer enclosed.

Cotton— Plants have benefited from the heat and continue to square. Earlier planted fields are at first bloom but most fields are later than normal. Fleahoppers and bollworms egg can be found in most fields. We have also seen a scattering of aphids and potentially fewer beneficial insects. Regular scouting needs to continue.

Other Insects—Fall Armyworm traps and sweep net surveys in hay fields have not yielded any moths or small worms. Dr. Knutson, Extension Entomologist, did find an egg mass several weeks ago as we were evaluating corn for earworm damage. There is a picture below. County agents in the area are monitoring weekly for this pest to hopefully catch them early to avoid the losses that occurred last year.

Figure 1. A fuzzy fall armyworm egg mass on a corn leaf . Greenville, TX June 2019.

Photo :D.R. Drake 2019

Wheat—Enclosed are the wheat variety trial results from the Howe, TX location. Both Hard Red and Soft Red classes were evaluated in the trials. The larger trial was not treated for foliar diseases with a fungicide. The fungicide profitability trial with a smaller set of varieties, was treated with a low cost generic fungicide. Results continue to demonstrate the value of host plant disease resistance and also a return on investment from a timely fungicide application, when a susceptible variety is grown. When choosing a variety multiple years and locations should be evaluated. More wheat trial information can be found at http://varietytesting.tamu.edu/wheat.

Summer Crops Field Tour

Thursday July 25, 2019 Greenville , TX

Greenville University Farm Registration @ 8:45 am

Bar-B-Que Lunch sponsored by

FMC and Syngenta

<u>Trials and Presentation Topics</u>

- Corn, Grain Sorghum and Soybean Varieties
- Corn Fertility
- Corn Planting Rate Study
- Cotton Variety Trial
- Soybean Weed Control Trials
- Soybean Fungicide Trial
- Minimum tillage demonstration
- 2 TX Pesticide applicator CEU's
- 2 CCA CEU's

RSVP for Free Lunch Late (day of event) Registration $10

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Map and Directions to Greenville Farm

From Hwy 69 (Joe Ramsey Blvd) just north of Greenville, TX

Travel 1.8 miles west on FM 1569. The north east corner of the farm is at CR 1059 and FM 1569

2018-19 Wheat @ Howe, TX (Norman Farms, Cooperator)
SRWW Variety Comparison with Selected HRWWs Study

Table 1 ***Yield (bu/ac) and Test Weight (lbs/bu)– June 21, 2019***

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

CV = 6.22
GM = 61.96
LSD (P = .05) = 4.39

CV = 1.29
GM = 56.12
LSD (P = .05) = 0.83

Mean Separation: Newman Keuls Multiple Comparison Test @ 5%
Entries/Means followed by the same letter are NOT significantly different.

Table 2. 19-04. 2018-19 Wheat @ Howe, TX (Norman Farms, Cooperator)

VARIETIES	Head Type	Forage Rating[1] (1-3)	Heading Date (Julian) April 11-25, 2019	Initial Stripe Rust Infection - FL (%)	Initial Leaf Rust Infection - FL (%)	Bacterial Streak[2] (0-4)	Final Stripe Rust Infection - FL (%)	Final Leaf Rust Infection - FL (%)	Plant Height (inches)	Test Weight (lb/bu)	Yield (bu/ac)
AGS 2024	Awned	2.8 abc	108.7 fgh	0.0 a	0.0 a	2.0 g-k	0.2 a	0.0 a	33.3 g-l	58.4 ab	77.1 a
AGS 2038	Awned	2.1 f-l	115.2 a	0.2 a	0.0 a	1.0 l	1.2 a	0.0 a	39.8 a	58.0 abc	67.3 b-f
AGS 2055	Awned	2.4 b-h	108.0 f-j	0.0 a	0.0 a	1.0 l	0.5 a	0.0 a	34.0 e-k	56.1 e-k	77.5 a
Go Wheat GW 2032	Awned	2.9ab	106.7 h-k	0.0 a	0.0 a	1.7 h-l	0.0 a	0.0 a	33.0 i-m	57.6 a-d	74.3 ab
TX-EL2	Awned	2.6 a-f	108.2 f-i	0.0 a	0.0 a	2.8 c-f	0.0 a	25.0 ef	34.5 d-j	55.6 f-l	64.8 c-h
TX15D9579	Awned	2.8 abc	106.0 jkl	0.0 a	0.0 a	1.8 g-l	0.0 a	0.3 a	33.5 f-l	56.4 d-i	69.0 b-e
TX15D9597	Awned	2.8 abc	106.0 jkl	0.0 a	0.0 a	2.0 g-k	0.0 a	4.0 ab	34.0 e-k	58.4 ab	70.2 bcd
#Fury	Awnless	2.3 d-j	107.7 g-j	0.0 a	0.0 a	1.0 l	1.3 a	0.0 a	32.2 k-o	56.4 d-j	70.9 bc
#Turbo	Awnless	2.6 a-f	106.7 h-k	0.0 a	0.0 a	1.0 l	0.0 a	0.3 a	32.0 l-o	57.3 b-e	71.7 abc
Blackland 1812	Awned	1.5 m	113.0 bc	0.0 a	0.0 a	1.0 l	1.7 a	2.0 ab	37.5 bc	56.4 d-j	63.1 d-i
Blackland 1881	Awned	1.8 i-m	109.3 fg	0.5 a	0.0 a	2.2 f-j	5.0 a	17.5 b-e	35.5 de	56.0 e-k	62.9 d-i
Blackland 1885	Awned	1.6 lm	113.0 bc	0.0 a	0.0 a	1.5 i-l	0.5 a	2.3 ab	34.0 e-k	56.1 e-k	64.4 c-h
Pioneer 25R40	Awned	1.9 h-m	111.8 bcd	0.0 a	0.0 a	2.0 g-k	2.3 a	25.0 ef	31.0 no	55.5 g-l	69.0 b-e
Pioneer 25R61	Awned	2.2 e-k	108.0 f-j	6.3 b	0.0 a	2.3 e-i	30.0 c	17.5 b-e	34.8 d-i	54.9 j-m	61.8 e-j
Pioneer 75R74	Awned	1.8 i-m	110.0 ef	0.5 a	0.0 a	1.7 h-l	0.7 a	21.7 c-f	32.7 j-n	55.3 g-l	66.0 c-g
Syngenta SY Viper	Awnless	2.0 g-m	106.5 ijk	0.0 a	0.0 a	2.0 g-k	0.8 a	31.7 f	36.2 cd	56.5 d-i	67.3 b-f
Syngenta Coker 9553	Awned	2.4 b-h	105.3 kl	0.0 a	0.0 a	3.0 cde	2.2 a	26.7 ef	35.5 de	58.8 a	67.1 b-f
Dyna-Gro 9012	Awned	2.2 e-k	108.2 f-i	0.0 a	0.0 a	3.3 abc	0.8 a	50.0 g	33.5 f-l	56.2 d-k	58.6 g-l
Dyna-Gro 9522	Awned	1.9 h-m	112.0 bcd	0.0 a	0.0 a	2.2 f-j	1.7 a	52.5 g	35.0 d-h	53.8 mn	58.2 h-l
Dyna-Gro 9701	Awned	1.7 klm	113.0 bc	0.0 a	0.0 a	1.3 jkl	1.8 a	3.0 ab	37.2 bc	56.0 e-k	62.5 d-i
Dyna-Gro 9811	Awned	2.2 e-k	108.2 f-i	0.0 a	0.0 a	1.5 i-l	0.3 a	5.5 ab	34.5 d-j	55.2 h-l	64.7 c-h
Dyna-Gro TV 8861	Awned	1.9 h-m	112.0 bcd	0.0 a	0.0 a	2.3 e-i	0.2 a	55.0 g	34.2 e-j	54.5 lm	59.6 f-k
USG 3118	Tip-Awned	3.0 a	105.3 kl	0.0 a	0.0 a	1.5 i-l	0.0 a	0.0 a	30.7 o	57.0 c-f	65.9 c-g
USG 3120	Awned	2.3 d-j	104.5 lm	1.5 a	0.0 a	2.7 c-g	9.3 b	4.7 ab	34.8 d-i	56.8 c-g	61.4 e-j
USG 3201	Awned	2.0 g-m	109.2 fg	0.0 a	0.0 a	3.3 abc	1.3 a	45.8 g	33.3 g-l	55.9 e-k	55.3 jkl
USG 3228	Awnless	2.6 a-f	107.7 g-j	0.0 a	0.0 a	2.2 f-j	0.5 a	6.8 ab	32.2 k-o	54.8 klm	65.3 c-h
USG 3329	Awned	1.8 j-m	109.0 fg	0.0 a	0.0 a	2.0 g-k	0.7 a	31.7 f	35.2 d-g	51.4 o	52.9 klm
USG 3404	Awned	1.8 i-m	111.8 bcd	0.0 a	0.0 a	1.8 g-l	0.2 a	7.8 ab	34.5 d-j	56.1 e-k	65.6 c-h
USG 3458	Awnless	1.5 m	108.2 f-i	0.0 a	0.0 a	2.3 e-i	1.8 a	34.2 f	32.0 l-o	53.0 n	52.4 lm
USG 3536	Awned	1.7 klm	112.2 bcd	0.0 a	0.0 a	1.2 kl	0.7 a	3.5 ab	37.3 bc	56.0 e-k	61.7 e-j
USG 3539	Awned	1.9 h-m	113.5 b	0.0 a	0.0 a	1.7 h-l	0.0 a	2.2 ab	33.5 f-l	56.2 d-k	67.4 b-f
USG 3895	Awned	2.6 a-f	107.7 g-j	0.0 a	0.0 a	1.5 i-l	0.0 a	10.8 a-d	31.5 mno	55.0 i-l	73.9 ab
Monsanto WB-2418	Tip-Awned	2.0 g-m	108.2 f-i	0.0 a	0.0 a	1.0 l	1.3 a	1.7 ab	35.2 d-g	57.2 b-e	65.7 c-h
Monsanto WB-4269 *(HRWW)*	Awned	2.8 a-d	107.5 g-j	0.0 a	0.0 a	3.2 bcd	0.0 a	11.0 a-d	33.2 h-m	56.7 c-h	51.8 lm
Monsanto WB-4303 *(HRWW)*	Awned	2.5 a-g	104.5 lm	0.0 a	0.0 a	3.0 cde	2.3 a	9.2 abc	32.8 j-m	54.5 lm	56.4 i-l
Monsanto WB-4418 *(HRWW)*	Awned	2.8 a-d	103.5 m	0.5 a	0.0 a	3.8 ab	0.0 a	14.2 a-e	32.3 k-o	56.2 d-k	54.7 jkl
Monsanto WB-4515 *(HRWW)*	Awned	1.8 j-m	111.5 cd	0.0 a	0.0 a	3.2 bcd	1.7 a	56.7 g	35.3 def	57.3 b-e	42.9 n
Monsanto WB-Cedar *(HRWW)*	Awned	2.7 a-e	100.7 n	0.7 a	0.5 b	4.0 a	0.0 a	81.7 h	31.0 no	55.5 f-l	46.7 mn
TAM 114 *(HRWW)*	Awned	2.3 d-j	110.8 de	0.0 a	0.0 a	3.3 abc	0.0 a	71.7 h	38.2 b	56.7 c-h	52.2 lm
TAM 305 *(HRWW)*	Awned	3.0 a	107.7 g-j	0.7 a	0.0 a	3.2 bcd	0.0 a	0.0 a	32.2 k-o	57.9 abc	51.9 lm
Syngenta Greer *(HRWW)*	Awned	2.7 a-e	108.0 f-j	0.0 a	0.0 a	3.2 bcd	0.0 a	80.8 h	35.5 de	54.3 lm	51.5 lm
Syngenta Grit *(HRWW)*	Awned	2.8 a-d	105.2 kl	0.0 a	0.2 a	4.0 a	0.8 a	78.3 h	36.2 cd	56.1 e-k	52.3 lm
Syngenta Monument *(HRWW)*	Awned	2.1 f-l	108.3 f-i	0.0 a	0.0 a	2.5 d-h	0.0 a	23.3 def	35.3 def	56.7 c-h	54.2 kl
Gallagher *(HRWW)*	Awned	2.3 c-i	106.5 ijk	0.7 a	0.0 a	3.3 abc	2.2 a	6.7 ab	34.0 e-k	58.7 a	56.2 i-l
LSD (P = .05)		*0.31*	*1.18*	*0.97*	*0.12*	*0.48*	*2.79*	*8.89*	*1.05*	*0.83*	*4.39*
CV (%)		*11.91*	*0.96*	*325.24*	*683.08*	*18.87*	*145.62*	*37.27*	*2.69*	*1.29*	*6.22*
GRAND MEAN		*2.25*	*108.52*	*0.26*	*0.02*	*2.24*	*1.68*	*20.97*	*34.18*	*56.12*	*61.96*

[1]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
[2]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

2018-19 Wheat @ Howe, TX (Norman Farms, Cooperator)
Fungicide Profitability Study

VARIETIES[1]/TREATMENT[2]	Leaf Rust Infection on Flag Leaf[3] (%) May 15, 2019	Yield[3] (bu/ac)	Yield Bushel/Ac Increase over Unsprayed	Test Weight[3] (lb/bu)	Test Weight lb/bu Increase over Unsprayed
AGS 2038 - *Sprayed*	**0.0 a**	**74.2 bc**	***9.6***	**58.8 abc**	***0.5***
AGS 2055 - *Sprayed*	**0.0 a**	**77.1 abc**	***0.1***	**56.6 e-i**	***0.5***
Dyna-Gro 9522 - *Sprayed*	**0.0 a**	**74.6 bc**	***17.3***	**56.5 f-j**	***2.7***
Dyna-Gro TV 8861 - *Sprayed*	**0.0 a**	**72.7 bcd**	***18.4***	**56.6 e-i**	***2.6***
Pioneer 25R40 - *Sprayed*	**0.0 a**	**81.0 a**	***18.9***	**57.0 efg**	***1.7***
Syngenta Coker 9553 - *Sprayed*	**0.0 a**	**71.1 cde**	***5.7***	**59.4 ab**	***- 0.1***
TX-EL2 - *Sprayed*	**0.0 a**	**75.6 abc**	***14.9***	**57.3 def**	***2.3***
USG 3201 - *Sprayed*	**0.0 a**	**71.1 cde**	***16.7***	**58.5 abc**	***3.1***
USG 3458 - *Sprayed*	**0.0 a**	**67.9 def**	***18.4***	**55.2 jkl**	***2.2***
USG 3536 - *Sprayed*	**0.0 a**	**72.1 cd**	***12.7***	**57.2 ef**	***0.8***
USG 3895 - *Sprayed*	**0.0 a**	**79.0 ab**	***12.1***	**55.7 g-l**	***1.2***
Monsanto WB-Cedar ***(HRWW)*** - *Sprayed*	**---[1]**	**57.1 ij**	***6.8***	**56.8 e-h**	***1.2***
Syngenta Monument ***(HRWW)*** - *Sprayed*	**0.0 a**	**61.7 ghi**	***6.6***	**57.9 cde**	***1.0***
TAM 114 ***(HRWW)*** - *Sprayed*	**0.0 a**	**60.5 hij**	***11.6***	**58.6 abc**	***1.5***
AGS 2038 - *Unsprayed*	**0.0 a**	**64.6 fgh**		**58.3 bcd**	
AGS 2055 - *Unsprayed*	**0.0 a**	**77.0 abc**		**56.1 f-k**	
Dyna-Gro 9522 - *Unsprayed*	**67.5 e**	**57.3 ij**		**53.8 no**	
Dyna-Gro TV 8861 - *Unsprayed*	**66.3 e**	**54.3 jkl**		**54.0 mno**	
Pioneer 25R40 - *Unsprayed*	**40.0 c**	**62.1 f-i**		**55.3 i-l**	
Syngenta Coker 9553 - *Unsprayed*	**28.8 b**	**65.4 e-h**		**59.5 a**	
TX-EL2 - *Unsprayed*	**42.5 c**	**60.7 hij**		**55.0 klm**	
USG 3201 - *Unsprayed*	**40.0 c**	**54.4 jkl**		**55.4 i-l**	
USG 3458 - *Unsprayed*	**52.5 d**	**49.5 kl**		**53.0 o**	
USG 3536 - *Unsprayed*	**10.0 a**	**59.4 hij**		**56.4 f-j**	
USG 3895 - *Unsprayed*	**26.3 b**	**66.9 d-g**		**54.5 lmn**	
Monsanto WB-Cedar ***(HRWW)*** - *Unsprayed*	**---[1]**	**50.3 kl**		**55.6 h-l**	
Syngenta Monument ***(HRWW)*** - *Unsprayed*	**26.3 b**	**55.1 jk**		**56.9 e-h**	
TAM 114 ***(HRWW)*** - *Unsprayed*	**70.0 e**	**48.9 l**		**57.1 ef**	
LSD (P = .05)	***6.00***	***4.21***		***0.83***	
CV (%)	***24.5***	***4.59***		***1.05***	
GRAND MEAN	***17.41***	***65.05***		***56.53***	

[1]Monsanto WB-Cedar removed from Leaf Rust Infection analysis (no green leaves to rate, combination of bacterial streak & rust)
[3]Data Assessment Note: Reps 1 & 2 excluded from analysis due to fungicide application error

[2]TREATMENT: April 29, 2019 applied TebuStar @ 4 fl.oz/A + NIS @ 0.25% v/v

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Calendar

July 25 Summer Crops Field Day—Greenville

August 16 Reduce Winter Feeding Program—Overton R&E Center

October 30 Dairy Program—Sulphur Springs

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

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.