August 30, 2007 Volume 10, Issue 17

Lower Rolling Plains Pest Management News

Jones Mitchell Nolan Scurry

Texas Cooperative Extension

General Situation

Now that August is coming to an end, there is good soil moisture to start September and there are forecasts of more rain this coming weekend. The heat unit accumulation this past week was 131 for an average of 18.7 per day (Table 1). Our accumulated heat units from June 1 to August 27 is 1577. If we can accumulate 20 heat units per day for the rest of the month, August will have accumulated 620 heat units which is still less than the average of 663 for the month of August. This will put us 298 heat units behind the average heat units for June, July, and August (accumulative 1955 HU's). Although there has not been any gain in HU's this month, cotton has progressed very well this month. Except for very late planted fields, cotton has reached "cutout" with less than 5 nodes above white flower (NAWF≤ 5). Some fields have bolls up to the top of the plant. Some fields have shed some fruit to adjust for nutrient deficiencies and other factors, but fruit retention has been relatively high (70% - 95%). Considering the heat unit accumulation, one question is whether a white flower, now, has enough time to develop to a good sized open boll.

Table 1. Heat Units Accumulated from Selected Dates to August 20 and August 27.

From	8/20/07	8/27/07
5/20	1575	1706
6/1	1446	1577
6/10	1294	1425
6/20	1138	1269
6/30	973	1104

Table 2. Accumulated Heat Units by Month (August's Hear Units to Aug. 27).

Month	2007	Avg. 2000-2006	Range
June	490	578	504-662
July	547	714	631-824
August	540	663	535-747
September	?	436	381-551
October	?	178	110-231
Total	?	2570	

Cotton and Grain Sorghum Insects

It seems redundant to always mention fields need to be scouted for insect pests of cotton and grain sorghum, but we continue to find fields with insect numbers at treatable levels. At the end of last week, there was an egg lay of **bollworms in cotton** and small larvae are being found this week. I have scouted fields with both Bollgard II and Bollgard cotton varieties and I have not seen any significant caterpillar numbers or damage. But, if you have Bollgard cotton and are finding bollworms larger than 1/4 inch in size, you should consider spraying if numbers are at the economic threshold level. This is because these bollworms will likely complete their development and cause enough damage to cover the

Ed Bynum
Extension Agent—IPM
100 E. Third St., Suite 305
Sweetwater, TX 79556

Office: (325) 236-9011
Mobile: (325) 660-1772
e-mail: ebynum@ag.tamu.edu
Website: http://lrpipm.tamu.edu

cost of a pyrethroid application. Although cotton aphids were crashing last week due to predators, parasites, and the heavy rain fall, aphid numbers are beginning to come back in some fields. Keep in mind applications of pyrethroids for bollworms can flare aphid populations. Fall armyworms are still present in both cotton and grain sorghum heads.

A few grain sorghum fields have been harvested and others have been sprayed with glyphosate to prepare for harvest. Other fields which are flowering and in the "milk" growth stage have needed to be sprayed for **sorghum midge, headworms, and stinkbugs**. Some fields have had tremendous numbers of sorghum midge (10 to 30+ per head). I was surprised to find swarms of midge in a field that had flowered last week These midge had developed in the flowers 11 to 14 days before and the midge adults were emerging from the spikelets. The midge could not cause an addition damage to this field, but they could infest other fields. These high infestations are due to a wide range of planting dates and extended maturities within a field. Refer to previous newsletters (vol. 10, issue no. 14 and 15) for information on economic injury thresholds and insecticide products for control. These newsletters are available on-line at the Nolan County Extension website (http://Nolan-co.tamu.edu/Newsletters.cfm) and at the Lower Rolling Plains IPM website (http://lrpipm.tamu.edu/), then click on Local Pest Management Newsletters.

Wheat

Producers have been busy preparing fields for wheat planting. There are several benefits from cultivating and destroying volunteer wheat and summer weeds prior to planting. Dr. Gaylon Morgan (State Small Grains Specialist) and Dr. Chris Sansone (Extension Entomologist) reported in their August 20, 2007 wheat newsletter that volunteer wheat and weed control could manage three diseases and four insects. Weeds and volunteer wheat should ideally be destroyed at least six weeks before planting, but benefits could still be obtained if the weeds and volunteer small grain is destroyed at least two weeks before planting. Soil moisture is saved and fewer insect problems may develop the sooner weeds and volunteer wheat are destroyed. Specific benefits to weed and volunteer destruction are:

- Keep Fall armyworm moths from laying eggs in fields prior to planting. Fall armyworms have been present in cotton and grain sorghum throughout the summer in the Lower Rolling Plains area and may present a problem this fall.
- Help prevent wheat curl mite from establishing in fields prior to planting, which reduces spreading of wheat streak mosaic virus (WSMV) and High Plains virus (HPV). A survey conducted by Dr. Carl Patrick, Extension Entomologist in Amarillo, showed that 85% of the volunteer wheat had the mite and symptoms of WSMV. These early fields not only have problems with the disease but also serve as a reservoir to infest other fields.
- Help manage Hessian fly populations. The first detection of Hessian fly in Nolan and Haskell Counties was last April and may become a problem here like it is in the southern part of the Rolling Plains and in the northern Blacklands of Texas. Destroying volunteer wheat and delaying planting should reduce the first generation of the Hessian fly and prevent high numbers in the fall. Also, planting wheat varieties resistant to Hessian fly will reduce the damage from this pest.
- Help manage greenbug populations. Volunteer wheat destruction will take away the bridge

greenbugs need to transition from grain sorghum to small grains. The increase in grain sorghum acreage this summer has increased the number of greenbugs which can move into wheat. Destroying the weeds will also help in managing other aphids that are responsible for Barley Yellow Dwarf virus (BYDV). Again, the later the aphids, which transmit the virus, enter the small grain fields, the less impact the disease will have on the wheat.

In Dr. Morgan and Dr. Sansone's newsletter, they advise producers to **take soil samples to determine soil nutrient levels**. Dryland fields which had high yields this past season may have depleted the soil of several critical nutrients (nitrogen, phosphorous, or potassium). Another situation is where the late-freeze caused extremely low yields. In this situation, the residual nitrogen and other nutrients may be available for this year's crop. By taking a soil sample the correct blend of fertilizer and amounts can be applied to your wheat field. And, they state **"Remember…… Additional nitrogen fertilizer can be applied prior to the jointing growth stage; however, other nutrients should be applied prior to planting the wheat crop."**

Wheat yield trial data for the Central Rolling Plains area is available on-line at http://varietytesting.tamu.edu and at Dr. Billy Warrick's website (http://sanangelo.tamu.edu/agronomy) in his August 2, 2007 newsletter.

Grower Meetings

Monday – Sept. 3	Tuesday— Sept. 4	Wednesday—Sept. 5	Thursday—Sept. 6
Scurry County No Meeting—Holiday	Nolan County UAP office—Roscoe 8:30 a.m.	Mitchell County Producers Coop Gin Colorado City 8:30 a.m.	Jones County Farmers Coop Gin— Anson 8:30 a.m.

2007 Wheat Varieties Disease and Insect Ratings for West Central Texas

Variety	Released and/or Sold by	First Year Sold	Maturity Group	Plant Height	Leaf Rust	Stem Rust	Powdery Mildew	Septoria	Wheat Streak Mosaic	Wheat Curl Mite	Hessian Fly
Ag Seco 7853	Ag Seco	1997	Medium	Medium	MS	MR	MR	S	I	-	S
AP502 CL	AgriPro	2003	Medium	Medium	S	MR	R	MR	MR	S	S
Caddo	Texas	1963	Medium	Tall	S	MS	-	-	S	S	S
Century	Oklahoma	1986	Medium Late	Tall	S	MS	R	MS	S	MR	MS
Chisholm	Oklahoma	1983	Medium Early	Medium	S	S	S	S	MR	S	MS
Cimarron	Oklahoma	1990	Medium Early	Medium	MR	MR	I	I	S	S	S
Collin	Texas	1986	Early	Short	MR+	MR	MS	MS	S	S	S
Coronado	AgriPro	1997	Medium Early	Medium	MS	MR	MR	MS	MS	-	I
Custer	Oklahoma	1997	Medium Early	Medium	MS	MR	MR	MS	S	-	S
Cutter	AgriPro	2003	Medium	Medium	S	R	S	MR	T	-	S
Deliver*	Oklahoma	2005	Late	Medium	I	MS	-	-	S	S	S
Dumas	AgriPro	2001	Medium	Medium	MS	MR	MS	R	MS	S	S
Endurance	Oklahoma	2005	Medium Late	Medium	I	MS	-	-	S	S	S
Fannin	AgriPro	2005	Medium Early	Medium	MR	R	R	MR	MS	S	S
HG-9*	Hardeman Grain	1995	Medium Late	Tall	I	MS	MS	-	S	S	S
Hondo	AgriPro	2000	Late	Medium	MR	MR	-	-	-	-	S
Ike	Kansas	1994	Late	Tall	S	MR	HR	MS	S	-	HR
Jagalene	AgriPro	2003	Medium	Medium	S	R	S	MR	T	-	S
Jagger	Kansas	1994	Early	Medium	MS	MR	MS	MR	MR	-	S
Karl	Kansas	1988	Early	Tall	S	MS	MR	I	S	S	S
Karl 92	Kansas	1992	Early	Tall	S	MS	MR	I	S	S	S
Kojak*	AgriPro	2008	Medium Late	Tall	MR	MR	MR	-	S	S	S
Lockett**	Texas	1997	Late	Tall	S	-	-	-	-	-	S
Longhorn*	AgriPro	1991	Medium Late	Tall	I	HR	MR	MR	MR	S	S
812	MBS Seeds	1980	Early	Short	S	S	S	S	S	S	S
814	MBS Seeds	1989	Medium Early	Short	MS	-	S	-	S	S	S
822	MBS Seeds	1993	Medium	Short	MS	MS	MR	MS	MS	MS	S
Ogallala	AgriPro	1994	Medium	Medium	I	MR	MS	I	I	MR	S
Osage	Okla./Texas	1974	Medium Late	Tall	MR	-	-	-	S	S	S
Overly	Kansas	2003	Early	Medium	MS	MR	-	-	S	S	S
2137	Kansas	1995	Medium	Medium	MS	MS	MR	MR	MR	-	HR
2145	Kansas	2002	Medium	Medium	M	MR	S	S	S	S	I
2157	TX, OK, and KS	1984	Medium Early	Medium	MS	S	S	MS	S	S	HR
2158	TX, OK, and KS	1990	Medium	Medium	S	MR	S	MS	S	S	HR
2163	TX, OK, and KS	1989	Medium	Medium	MS	MR	HR	MR	MR	S	HR
2174	Oklahoma	1997	Medium Late	Medium	MS	MS	HR	MR	MS	-	S
2180	TX, OK, and KS	1987	Medium Early	Short	MS	MR	S	S	S	S	R
Russian*	Origin Unknown	1917	Medium Late	Tall	MR	-	I	-	S	S	S
Scout 66	Nebraska/USDA	1967	Medium Early	Medium	MS	MR	I	MS	MS	S	S
Siouxland 89	Texas/Nebraska	1989	Medium Late	Tall	MR+	MR	R	MR	MR	S	S
Stanton	Kansas	2003	Medium Late	Medium	MR	MR	-	-	S	S	MS
Sturdy	Texas	1966	Medium	Short	S	MS	MS	S	S	S	S
Sturdy 2K	Texas	2004	Medium	Medium	I	I	-	S	S	S	S

TAM 101	**Texas**	**1971**	**Medium**	**Medium**	**S**	**MS**	**S**	**S**	**MS**	**S**	**S**
TAM 105	**Texas**	**1979**	**Medium**	**Medium**	**S**	**MS**	**S**	**S**	**S**	**S**	**S**
TAM 107	**Texas**	**1984**	**Medium**	**Medium**	**S**	**MR**	**HR**	**MS**	**I**	**MR**	**S**
TAM 109*	**Texas**	**1991**	**Medium**	**Medium**	**S**	**S**	**S**	**S**	**S**	**S**	**S**
TAM 110	**Texas**	**1996**	**Medium Early**	**Medium**	**MS**	**MR**	**HR**	**MS**	**I**	**HR**	**S**
TAM110 CL	**Texas**	**2003**	**Medium**	**Medium**	**S**	**MR**	**R**	**MR**	**MR**	**S**	**S**
TAM 111	**Texas**	**2003**	**Medium**	**Medium**	**S**	**R**	**-**	**-**	**I**	**S**	**S**
TAM 112	**Texas**	**2006**	**Medium Early**	**Medium**	**MS**	**MR**	**HR**	**MS**	**I**	**HR**	**S**
TAM 202	**Texas**	**1992**	**Medium**	**Short**	**MS**	**R**	**R**	**S**	**S**	**S**	**S**
TAM 302	**Texas**	**1997**	**Medium**	**Medium**	**MS**	**-**	**MR**	**MR**	**-**	**-**	**S**
TAM 400	**Texas**	**2001**	**Medium**	**Medium**	**I**	**MS**	**MR**	**MR**	**S**	**S**	**R**
Thunderbolt	**AgriPro**	**1998**	**Medium**	**Medium**	**MR**	**MS**	**MS**	**R**	**MR**	**S**	**S**
Tomahawk	**AgriPro**	**1991**	**Medium Late**	**Medium**	**MR**	**MR**	**MR**	**MS**	**MS**	**-**	**S**
Tonkawa	**Oklahoma**	**1997**	**Medium**	**Medium**	**R**	**-**	**-**	**-**	**-**	**-**	**S**
Triumph 64	**J. Danne**	**1964**	**Early**	**Tall**	**MS**	**MS**	**MS**	**S**	**MR**	**S**	**S**
Voyager	**RSI**	**1997**	**Medium Late**	**Tall**	**R**	**-**	**-**	**-**	**-**	**-**	**S**
WeatherMaster-135*	**-**	**-**	**Medium Late**	**Tall**	**-**	**-**	**-**	**-**	**S**	**S**	**S**
WinMaster*	**Abilene Ag**	**1995**	**Medium Late**	**Tall**	**-**	**-**	**MS**	**-**	**S**	**S**	**S**
WinTex*	**Bredemeyer's**	**1991**	**Medium Late**	**Tall**	**MR**	**-**	**S**	**-**	**S**	**S**	**S**

* Denotes awnless varieties
** Denotes semi-awnless varieties

Disease and Insect rating abbreviations are:

HR=Highly Resistant, MR=Moderately Resistant, I=Intermediate,
MS=Moderately Susceptible, S=Susceptible, and T=Tolerant.