

# Lower Rolling Plains Pest Management News

Jones Mitchell Nolan Scurry

Texas Cooperative Extension

## General Situation

Temperatures are finally warming up into the mid-90's and the heat units should be above 20 per day. We will not be gaining on what heat units we have lost, but at least we will not be losing any heat units. From August 1 to August 6 we have accumulated 118 heat units (avg. 19.6 per day). Note Table 1 for the number of heat units accumulated from selected dates to July 30 and August 6.

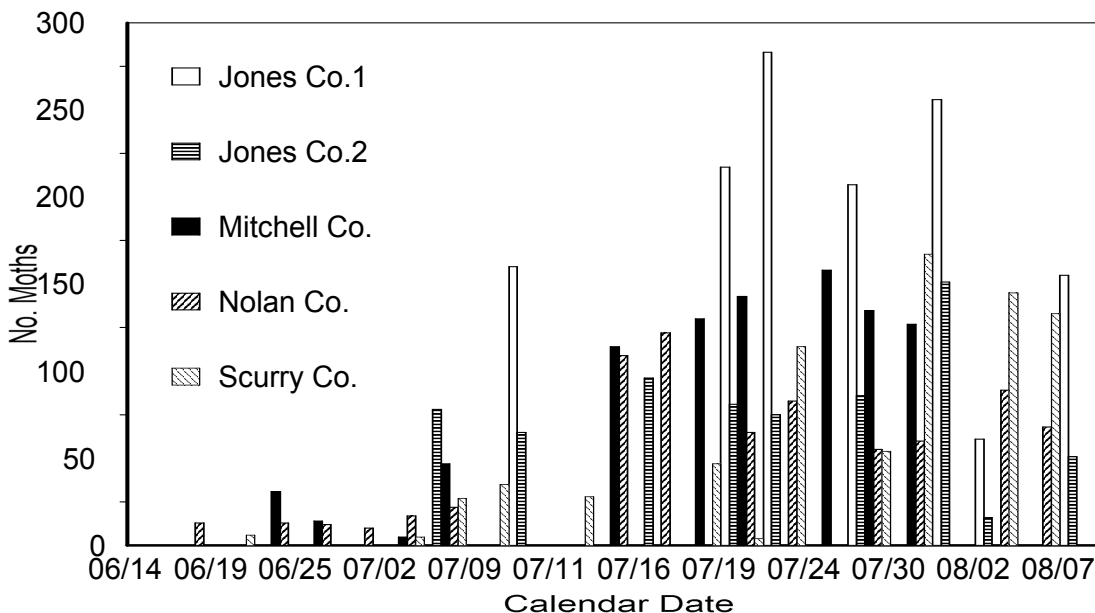
**Table 1. Heat Units Accumulated from Selected Dates to July 22, July 30.**

From	7/30/07	8/6/07
5/20	1149	1284
6/1	1020	1154
6/10	868	1003
6/20	712	846
6/30	547	682

We still have cotton fields which are not blooming. Cotton bollworm moth trap catches continue to be fairly consistent in Nolan and Scurry counties, but have declined some in Jones county since July 31. Cotton aphids continue to increase in fields and are particularly troublesome in Jones county. Fall armyworms have been found at treatable levels in Jones county and are present throughout the region.

Sorghum midge infestations are present in flowering grain sorghum fields.

### Cotton Bollworm Moth Traps



## Cotton Insects

**Cotton aphids** are increasing in fields through out the area and are particularly problematic in Jones county. Infestations have been difficult to maintain control for any length of time. Fields are becoming re-infested after a short period of time (10 to 14 days) and some have needed to be re-sprayed. Last week in the August 1, 2007 issue of Southwest Farm Press, there was an article about aphid control problems on cotton around southwestern Oklahoma near Altus. One of the comments from this article stated "When neonicotinoid insecticides was first introduced, producers were getting control even if they cut rates to the lowest recommended rate, which became the accepted rates for control. Recently, these rates quit working as effectively. Also, producers who have used Orthene or pyrethroids, or who have mixed low rates of the neonicotinoid products with Roundup have created an aphid population that is difficult to control. If chemical control is warranted, best results in this area involve use of Intruder at one ounce per acre or Centric at two ounces per acre with application volume of at least three gallons per acre if applied by air or five gallons per acre if ground applied." and "Under heavy aphid pressure, five gallons per acre or 10 gallons per acre spray volume is recommended. A silicone-based metholated seed oil should be used to increase deposition on the leaves. The high rate is recommended because a low rate applied as the first application will make control even more difficult if a second spray is needed." **I am not ready to say the low rates of the neonicotinoid products have quit working and that the first application will make control more difficult for a second application.** What we are dealing with is extremely heavy infestations area wide and winged aphids are so numerous that fields are just becoming re-infested. I would agree with the statement about using the higher labeled rate of an insecticide (because of the high aphid pressure) and using higher spray volumes and a surfactant to improve spray coverage. Natural aphid predators continue to be found in high numbers and may contribute to aphid control.

Last Thursday, I sent an e-mail bug bulletin about finding **fall armyworms** at treatable levels in a field near HamlinTX. The following is a revision of what I wrote in the e-mail. In this field there was a mix of both cotton bollworms and fall armyworms, but the fall armyworms were the predominate caterpillars in the field. Therefore, when scouting fields, take time to identify the caterpillars and do not assume the worms are cotton bollworms. Cotton fields should be scouted carefully every 3 to 5 days.

Treatment thresholds are the same as thresholds for bollworm infestations. **Treatment may be justified when counts average 5000 or more small worms per acre. Or 10 to 12 worms per 100 plants.** Control is best when larvae are less than ½ in. Chemicals, such as Steward (10 oz./ac), Intrepid (4 to 10 oz/ac), Tracer ( 2.14 to 2.9 oz/ac) and Diamond (8.0 to 9.0 oz/ac), should provide adequate to good control in cotton. Field tests have shown Intrepid at 6 oz./ac provides effective control. However, Intrepid is not effective against cotton bollworms. The Diamond product label suggests using rates of 12.0 to 14.0 oz/ac for cotton bollworms. The recommended rate for Tracer is the same for fall armyworm and cotton bollworm, but Tracer is only effective against small worms. Also, Steward should provide adequate control of small size cotton bollworm larvae. As with any product, good coverage is critical for good control. Read and follow label directions when using any insecticide. I had stated that pyrethroids do not provide effective control, but since writing the e-mail I have learned that in the southeast individuals are recommending two applications of a pyrethoid (high labeled rate) at a 5-day interval.



Head color is tan to dark with a conspicuous white-colored inverted "Y".  
Black dots on the top of the abdomen near the rear form a square.

Photos: Head - Texas Cooperative Extension

Body - E.D. Bynum, Jr., Texas Cooperative Extension

## Grain Sorghum

The past few weeks insects in grain sorghum heads have been predominately stink bugs and headworms. We now have to be looking for **sorghum midge** if heads are flowering. During flowering, grain sorghum maybe susceptibility for 7 to 9 days, depending on the uniformity of flowering. The following tables are taken from Texas Cooperative Extension publication B1220, "Managing Insect and Mites pests of Texas Sorghum and can be found online at <http://tcebookstore.org/tmppdfs/19343383-27.pdf>. Refer to the publication for use of the equation to estimate economic injury levels for you field. (Photo: Extension Entomology, Texas A&M University).



**Table 14. Estimated economic injury levels for sorghum midge for a range of factors. (This table is only a guide. Use the equation in the text to estimate the economic injury level in your field.)**

Control cost, \$/acre	Crop value, \$100 lbs	Economic injury level— mean number of midges/flowering head		
		Flowering heads = 18,000/acre	Flowering heads = 45,000/acre	Flowering heads = 67,500/acre
5	6	1.6	0.6	0.4
5	7	1.3	0.5	0.34
5	8	1.2	0.5	0.3
6	6	1.9	0.8	0.5
6	7	1.6	0.7	0.4
6	8	1.4	0.6	0.35
7	6	2.2	0.85	0.6
7	7	1.9	0.75	0.5
7	8	1.6	0.65	0.45

**Table 15. Suggested insecticides for controlling sorghum midge.**

Insecticide	Application rate	Days from last application to:	
		Harvest	Graze
Chlorpyrifos (Lorsban® 4E)	8 oz	30	30
Cyfluthrin (Baythroid® 2E)	1.0-1.3 oz	See remarks	14
Cyhalothrin (Karate® 1E) (Warrior® 1E)	1.92-2.56 oz	See remarks	
Esfenvalerate (Asana® XL)	2.9-5.8 fl oz	21	—
Malathion (Fyanon® ULV)	8-12 oz	7	7
Methomyl (Lannate®) (2.4LV) (90WSP)	12-24 oz 4-8 oz	14 14	14 14
Zeta-cypermethrin (Mustang Max®)	1.28-4.0 fl oz	14	45

**Cyfluthrin.** If one or two applications are made, green forage may be fed or grazed on the day of treatment. If three applications are made, allow at least 14 days between last application and grazing.

**Cyhalothrin.** Do not graze livestock in treated area or harvest for fodder, silage or hay.

## Grower Meetings

<b>Monday August 13</b>	Scurry County  Farmers Coop Gin – E Hwy 180 8:30 a.m.
<b>Tuesday August 14</b>	Nolan County  Central Rolling Plains Coop Gin office 8:30 a.m.
<b>Wednesday August 15</b>	Mitchell County  Hal Morren’s field Just east of FM 644 on FM 2319 8:30 a.m.
<b>Thursday August 16</b>	Jones County  Farmers Coop Gin—Stamford  8:30 a.m.

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INSECTICIDE PERFORMANCE RATING AGAINST LEPIDOPTERAN INSECTS 2003-2004

COMPOUNDS	BW		TBW		BAW		FAW		SL/CL		ECB		PBW		SAW		SMC		CW	
	03	04	03	04	03	04	03	04	03	04	03	04	03	04	03	04	03	04	03	04
TRACER	F	F	S-	S-	S-	S-	F-	F-	S-	F+	F	F	P	P	S	S	P	P	S-	S-
DENIM	F	F	F+	F+	S-	S-	F-	F-	S	S-	F	F	P	P		?	S-	S-		?
STEWARD	F+	F+	F+	F+	S-	S-	F-	F-	S	S-	F	F	P	P	S	S	S+	S		?
CURACRON	F	F-	F	F-	P	P	F-	F-	P	P	P	P	F-	F-	F	F	F-	F-		?
INTREPID	P+	P+	P+	P+	S	S	F+	F+	S	S-	F	F	P	P	S	S	S	S		?
DIAMOND	P	P+	P	P		F		F-	F-	F-		?		?		?		?		?
S-1812	F	F	S-	S-	S-	S-	F-	F-	S	S	F	F	P?	P		?		?		?
PYRETHROID	S-	S-	P-	P-	P	P	F-	F-	P	P	S	F+	S-	F+	F	S	F+	F	S	?
BOLLGARD	F	F+	S	S	P+	P+	F-	F-	P±	P	S	S-	S	S	F-	F-	F-	P+	P	?
BOLLGARD 2	S-	S	S	S	S	S	F+	S-	S	S	S	S	S	S	S-	S		S	P+	?
WIDESTRIKE		S-		S		?		S		S-		S		S		S		?		?
VIPCOT 200's		S		S		S		?		S		P		?		?		?		?
VIPCOT 100's		F		F+		F+		F		S		P		?		?		?		?
<p>P = Poor, F = Fair, S = Standard, +/- = Intermediate</p> <p style="text-align: center;"><b>S</b> = Standard</p>																				

INSECTICIDE PERFORMANCE RATING FOR APHIDS, WHITE FLIES, ETC. 2003-2004

COMPOUNDS	Aphids		Whitefly				Thrips		Mites		Grasshoppers	
	03	04	B-Wing		Bemisia		03	04	03	04	03	04
DIMETHOATE	P+	P+		P	P	P	S-	S-	P/F-	P/F		F
LORSBAN	P+	P+	P+	P+	P+	P+	F	F	P	P		S
ORTHENE	P+	P	S	S	F	P	S	S		P		S
BIDRIN	F-	P/F		?		P	S	S-		P		S
KARATE	P-	P-		P		P	S-	S-		P		S
TRIMAX	F+	F	P+	P+	P-	P	P+	P+		P		P
CENTRIC	S-	S-	S-	F+	F	F	P+	P+		P		F
INTRUDER	S	S	S	S	S	S+	F-	F-		?		?
F-1785	S-	S-		?	P	P		P		?		?
DIAMOND		P	P	P	P-	P+	P	P		?		P+
PROLEX	P-	P-		P		P	S-	S-		P		?
VYDATE	P	P		P		P	P/F	P+		?		?
CAPTURE	P+	P		P		P+	S-	S-	P/S	P/S		S
KNACK		P+		S	S	S		?		?		?
DENIM		P		F-		F-		?		S-		?
MUSTANG MAX		P-		?		?		?		?		?
BAYTHROID		P-		?		?		?		?		?

P = Poor, F = Fair, S = Standard, +/- = Intermediate

S = Standard