



INSECTS AND WEEDS IN FOCUS

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Kleberg County. In Kleberg County we have cotton fields ranging in maturity from bloom all the way to pre-squaring, first true leaf stage cotton. The great majority is well into squaring though. This being the case, almost every field is beyond susceptibility to thrips damage. In general, I feel comfortable saying that aphids declined throughout the county, however some fields were still moderately infested. As the cotton crop reaches bloom and beyond, the aphid threshold can be raised a little. For example, hold off treatment for aphids mid-season (bloom to first open boll) until you find 50 aphids/leaf for at least 2 weeks or 100 aphids/leaf for at least one week. Holding off on insecticide applications allows beneficials to move in and build up to numbers that can often control aphid populations without the added expense of insecticides. Fleahoppers were still very active this past week in county fields. Many Kleberg County fields have reached or surpassed economic thresholds for fleahoppers and spraying for them has begun. Producers with fields approaching the fruiting stages should be on the lookout for fleahoppers. Remember, thresholds are 15-25 fleahoppers per 100 plants. After fields are 7-10 days into bloom, fleahoppers are not considered damaging any longer and scouting for them becomes less important. Worms have remained remarkably low with a grand total of 5 eggs and 7 worms found in the 25 fields we look at throughout the county.

WEB SITE FOR NEWSLETTER

This newsletter can be found on the web at the District 11 Agfacts web site. The address for Dr. Parker's page is: <http://agfacts.tamu.edu/~rparker/>. It is also available at the Texas A&M University Extension Entomology web site: <http://entowww.tamu.edu>. RDP

1999 MARKS 100 YEARS OF ENTOMOLOGY AT TAMU

The first entomologist employed at Texas A&M University in 1899 was hired in large part to study the boll weevil which had arrived from Mexico about seven years earlier. Frederick W. Mally was allotted \$1,000 per year to pay for all his field work and materials. With those meager funds, he conducted research on farms in many parts of the state and built the first off-campus laboratory near Eagle Lake on the banks of the Colorado River. In 1902, after only a brief period of studying the pest, Mally published a Texas A&M College bulletin entitled "Report on the Boll Weevil," the first comprehensive work on the life history and control of the pest. RDP

Nueces County. Nueces County cotton ranges from 1/3 grown square to the very early true leaf stages. Thrips in susceptible fields have remained very low this year. Aphids, however, were on the rise this past week in Nueces County. Eight of our 10 fields in the county had moderate to heavy aphid infestations. This week's scouting reports will go a long way toward telling us whether insecticides are going to be necessary to get the aphid situation under control. No Nueces IPM Survey program fields were at fleahopper threshold levels last week. This is probably explained by the fact that about half of our fields here are not at fruiting maturity yet. As fields in Nueces County begin reaching the fruiting stages, producers should be watching out for fleahoppers. Again, bollworms have been relatively non-existent. No eggs or worms were found in any of our Nueces IPM Survey fields this past week.

San Patricio County. All IPM program fields in San Patricio County are well into the fruiting stages of maturity, with the majority already at 1/3 grown square. A few fields are moderately infested with aphids, usually with spots of heavy aphid outbreaks. These situations can make the decision to spray for aphids very difficult. How many is too many? I'm not sure there is an exact answer, but this situation is heavily dependant on beneficial insect abundance, weather forecasts, and cotton growth stage. Lots of beneficials, predictions of rain, and more mature cotton should allow you to hold off on insecticide applications – essentially in a “wait-and-see” mode. Many San Patricio producers have already been forced to spray for fleahoppers this season. Some are waiting to spray aphids until fleahoppers are in the field to get a sort of two-for-one application. Finally, as in the other Coastal Bend counties, worm counts are incredibly low. We found a grand total of 2 worms and no eggs this past week in 9 San Patricio County IPM program fields (2 were sprayed and not scouted). EDB

BOLL WEEVIL REPORT

Again this week, boll weevil trap catches are astonishingly low. The Robstown area averaged 0.009 weevils per trap (15,529 traps), Sinton area 0.012 weevils per trap (9,838 traps), and the Kingsville area 0.001 weevils per trap (3,886 traps). For our area alone, not including the Uvalde or Victoria areas, we averaged 0.009 weevils captured in the Coastal Bend IPM 3 county area. Incredible! This is an area-wide reduction of more than 98% since just last year when we averaged 0.58 weevils captured per trap! Let's keep the pressure up. Incidentally, beet armyworm trap catches were down over 50% versus catches this time last year. However, over the weekend some beet armyworm trap catches increased dramatically. EDB

BOLL WEEVIL PHEROMONE TRAP DEPLOYMENT

Are we serious about getting rid of the boll weevil? If so, access needs to be provided so traps can be deployed around entire fields. I've mentioned this on numerous occasions realizing not all producers get this newsletter nor are all present at various meetings; therefore, please pass this information to others. RDP

HEAT UNITS FOR COTTON - CORPUS CHRISTI

Date	Daily H.U. ¹	Acc. H.U. ¹	Date	Daily H.U. ¹	Acc. H.U. ¹
Mar	-	250.7 ²	4/20	13.5	516.9
4/1	11.1	261.8	4/21	14.3	531.2
4/2	13.4	275.2	4/22	18.2	549.4
4/3	14.3	289.5	4/23	19.3	568.7
4/4	15.3	304.8	4/24	18.7	587.4
4/5	16.8	321.6	4/25	18.0	605.4
4/6	12.7	334.3	4/26	14.3	619.7
4/7	15.6	349.9	4/27	12.6	632.3
4/8	18.0	267.9	4/28	15.6	647.9
4/9	16.2	384.1	4/29	16.1	664.0

4/10	18.4	402.5	4/30	15.0	679.0
4/11	16.8	419.3	5/1	14.2	693.2
4/12	17.1	436.4	5/2	14.3	707.5
4/13	17.3	453.7	5/3	17.6	725.1
4/14	19.0	472.7	5/4	22.9	748.0
4/15	7.7	480.4	5/5	20.8	768.8
4/16	2.2	482.6	5/6	14.9	783.7
4/17	1.9	484.5	5/7	14.7	798.4
4/18	7.0	491.5	5/8	15.9	814.3
4/19	11.9	503.4	5/9	20.5	834.8

¹ H.U. = heat units. Accu. H.U.= accumulated heat units
² Monthly accumulation RDP

RESULTS OF AT-PLANTING INSECTICIDE USE ON SORGHUM

Results to date of insecticide applied as a seed treatment (Gaucho, Gammasan and Adage), granular in-furrow (Counter) and spray in-furrow (Furadan) to sorghum are shown below. Additional data will be obtained and we plan to determine yield effects.

Treatment	Greenbugs per 10 lower leaves	
	51 DAP ^a	55 DAP
Gaucho 480FS	0.3 d	2.3 b
Gammasan DS	97.5 b	297.5 a
Adage 5FS	0.0 d	0.5 b
Counter 15G	54.3 c	74.3 b
Furadan 4F	167.3 a	365.0 a
Untreated	113.8 b	231.3 a
LSD (P=0.05)	.0000	.0000
P>F	38.138	146.4

Means in a column followed by the same letter are not significantly different by ANOVA (P=0.05: LSD).

^a DAP = Days after planting (5/1 and 5/8).

^b Fulfill is an experimental insecticide from Novartis Crop Protection Company. RDP

SORGHUM INSECT PEST INCREASING

Greenbugs continue to increase in area sorghum fields and have reached economically damaging levels in some fields. In other fields it appears that greenbug numbers will be held in check by various predators and parasites.

Scouting sorghum for greenbugs should be conducted weekly. Examine a minimum of 40 randomly selected plants per field. Greenbugs are seldom distributed evenly in a field, so examine plants from all parts of the field; avoid examining only field borders. In fields larger than 80 acres, or if making a control decision is difficult, examine more than 40 plants.

When deciding whether to control greenbugs, consider the amount of leaf damage, number of greenbugs per plant, percentage of parasitized greenbugs (mummies), numbers of greenbug predators (lady beetles) per plant, moisture conditions, plant size, stage of plant growth and overall condition of the crop. It is important to know from week to week whether greenbug numbers are increasing or decreasing. For example, insecticide treatment would not be justified if the recommended treatment level (based on leaf damage) had been reached but greenbug numbers had declined substantially from previous observations.

Table 10. Economic threshold levels for greenbug on sorghum at different plant growth stages.

Plant size	When to treat
Emergence to about 6 inches	20% of plants visibly damaged (beginning to yellow), with greenbugs on plants
Larger plant to boot	Greenbug colonies causing red spotting or yellowing of leaves and before any entire leaves on 20% of plants are killed.
Boot to heading	At death of one functional leaf on 20% of plants
Heading to hard dough	When greenbug numbers are sufficient to cause death of two normal-sized leaves on 20% of plants

Plants can tolerate about 30 percent leaf loss before yield is reduced. Greenbug infestations after sorghum flowering and before the hard-dough stage should be controlled before they kill more than two normal-sized leaves on 20 percent of the plants. In the Texas Blacklands, insecticide application is suggested when greenbugs are colonizing the upper leaves of booting sorghum and causing red spotting or yellowing of leaves.

These guidelines are based on the assumption that greenbugs are increasing so rapidly that control by beneficial insects is ineffective. However, when more than 20 percent of the greenbugs appear brown and swollen from being parasitized, an insecticide treatment is usually unnecessary. Also, plants showing drought or other stress cannot tolerate as much greenbug damage without suffering reduction in yield.

Greenbug colonies usually begin on the underside of lower leaves and move up the plant. On most sorghum hybrids, only the underside of lower leaves need to be examined, although in some cases greenbug colonies may be found first on the underside of upper leaves. Do not confuse greenbugs with the bluish green corn leaf aphid, often found with greenbugs in the plant whorl.

When deciding on insecticide treatment, consider the previously listed factors and consult the recommended treatment levels in Table 10. When estimating leaf damage, consider any leaf to be dead if more than 75 percent of its

surface is red, yellow, or brown. Do not mistake for greenbug damage the natural senescence of the small bottom leaves. Estimate an average leaf damage level for the entire field unless it is feasible to spot treat areas of the field.

Table 11. Suggested insecticides for controlling greenbug.

Insecticide (listed alphabetically)	Concentrate per unit area	Days from last application to:	
		Harvest	Grazing
Carbofuran (Furadan®4F)	8-16 oz./acre	75	75
Chlorpyrifos (Lorsban®4E)	8-32 oz./acre	30-60	30-60
Dimethoate (4E)	8-16 oz./acre	28	28
(5E)	6.4-12.8 oz./acre	28	28
Disulfoton (Di-Syston®)			
(8E)	4-8 oz./acre	7	45
(15G)	5.0-6.7 oz./acre	30	45
Malathion (57EC)	24 oz./acre		
Parathion (ethyl) (4E)	8-16 oz./acre	12	12
(8E)	4-8 oz./acre	12	12

Remarks

Carbofuran. Applicator must use proper protective equipment when applying this highly toxic insecticide. Do not apply after heads emerge from the boot.

Chlorpyrifos. Do not exceed three applications. The waiting period from last application to harvest or grazing is 30 days for the 16-oz. rate and 60 days for more than 16 oz.

Dimethoate. Do not apply more than three times per season. Do not apply after heads emerge from the boot.

Disulfoton. 8E - Do not apply foliar spray or granules more than three times per crop season. Post-harvest interval is 34 days for three foliar applications. **15G** - Granular formulation applied post emergence is recommended as whorl application only.

Parathion. Aerial application only. Do not substitute methyl parathion.

Corn leaf aphids (CLA) continued to decline in most areas due to attack by a large array of predators and parasites. Because CLA prefer to live and feed in the whorl of sorghum their numbers normally decline rapidly after the grain heads emerge from the boot. Under extremely favorable situations sometimes they do not decline in this circumstance and cause some damage. Also, if they remain in the heads through the soft dough stage, harvesting problems might be encountered. RDP

AGRICULTURAL TOUR DATES

The agricultural tour dates for Extension District 11 counties and, Kleberg, Jim Wells and Fort Bend Counties are provided below. Please contact the appropriate county Extension office for specific starting times and locations.

COUNTY	DATE
Kleberg 361/595-8566	June 1 - PM
Karnes 830/780-3906	June 3 - AM
Bee 361/362-3281	June 3 - PM
Goliad 361/645-8204	June 4 - PM
Jim Wells 361/668-5705	June 7 - AM
Refugio 361/526-2825	June 8 - AM&PM
San Patricio 361/364-6234	June 9 - PM
Nueces 361/767-5223	June 11 - AM/PM
Lavaca 361/798-2221	June 14 - PM
DeWitt 361/275-5132	June 15 - PM
Calhoun 361/552-9747	June 16 - PM
Wharton 409/532-3310	June 17 - PM
Victoria 361/575-4581	June 17 - PM
Colorado 409/732-2082	June 21 - PM
Fort Bend 281/342-3034	June 22 - AM
Jackson 361/782-3312	June 22 - PM
Austin 409/865-5911, ext.170	June 23 - AM
Fayette 409/968-5831	June 23 - PM
Regional Conservation Tillage Field Day - Dodson Farm, Nueces County 361/767-5223	June 24 - AM
Rice Field Day in Eagle Lake	July 8 - PM
Rice Field Day in Beaumont	July 15 - PM

RDP

of controlling or leaving weeds that have escaped earlier herbicide treatments. These pests are generally not present in enough quantity to justify a full field treatment. In this case is the extra cost to control 100% of the escapes justified?

COMMERCIAL COMPANY TOUR

Novartis Crop Protection Company announced two tours to view new crop protection technology for corn, cotton, sorghum, soybeans and peanuts. The Novartis NK seed varieties and seed treatments will be showcased along with a new herbicide tolerant patented gene. Tours will begin at 10:00 a.m. and end around 3:00 p.m. with lunch provided by Novartis.

The Gulf Coast tour will be located near Wharton: from Hwy 59 just north of Kendleton, exit Darst Road to the west, take the first left, then right at the next intersection. The test farm is located on the right after the curve in the road.

The College Station tour will be on Hwy 60, 1 mile west of the Brazos River on the right across from the Texas A&M University Research Farm. CEU and CCA credit will be provided.

NOTE: Other companies are encouraged to contact us to list field tours for this region of the state. RDP

WEED CONTROL ESCAPES CONSIDERATIONS FOR LATE SEASON CONTROL

Each year at this time producers are faced with a decision

One should consider the following:

- What will the actual monetary loss from remaining weeds be?
- How competitive is the weed?
- Will the weed presence at harvest lower product quality?
- What harvesting problems will the escapes cause?
- How difficult will the escapes be to control in next year's crop?
- How much potential for seed/rhizome production is there?
- Is there a potential human or livestock hazard?
- Will the escapes serve as hosts for insects?
- Can the escapes be easily removed by hand or chemicals?
- What will the removal cost per acre?
- What is the potential for the problem (uncontrolled) to spread over a large area?

The most common escapes found in south Texas are:

Sunflower	Johnsongrass
Pigweed (sp.)	Devilsclaw
Crownbeard	Morningglory
Bremudagrass	Texas panicum
Waterhemp	Purselane (sp.)
Cocklebur	Signalgrass

Other considerations for late season weed control include the growth stage of the crop itself. Many herbicides give specific stages of safe crop treatment. Treating outside this zone may cause crop damage. Remember the larger the weed the harder it is to control. Also weather and soil conditions should be considered. Hot and dry conditions are, in general, not conducive for the best weed kill. JEB

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