



# INSECTS AND WEEDS IN FOCUS

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## TEXAS COUNTRY CLEANUP

The following materials can be recycled: empty plastic pesticide containers (high pressure or triple rinsed), motor oil, oil filters and, lead-acid batteries. The collection will take place June 7 from 8:00 a.m.-12:00 p.m. at the Nueces County Show Barn at Robstown. For more information contact (361) 767-5223. RDP

## COTTON SITUATION

Maturity of cotton ranges from 1/3-grown square to that in the 3<sup>rd</sup> to 4<sup>th</sup> week of bloom. Rain is needed in all areas but cotton in the drier regions has already reached cutout with blooms near the top of plants. Fruit set in areas with adequate moisture is very good but to retain this fruit, additional rain is needed.

**Bollworm** eggs and larvae have been low in most fields. I hope you base treatment needs on careful field scouting instead of a few worm damaged squares on the ground. I inspected a field on Wednesday that had been treated for "worms" on Tuesday. I examined 320 terminals and squares and found two damaged terminals and zero damaged squares. A few damaged squares could be found on the ground. That field is now vulnerable for aphids and a bollworm outbreak. We do expect moth egg laying activity to increase over this weekend into next week.

Carefully scout fields for eggs, newly hatched worms and damage. Examine 25 plant terminals (also some whole plants) selected at random from at least 4 sites in fields for eggs and small larvae. Also examine the same number of one-half and larger green squares for bollworms and damage. These squares should be selected at random and flared or yellow squares should not be included in the

count. Once blooms are present, an insecticide application may be justified when 8-12 or more small larvae are present per 100 plant terminals and 5-15% of the squares and bolls are worm damaged. If worm numbers are high, it may not be appropriate to wait until the damaged square threshold is reached. If insecticides have already been applied that kill beneficial arthropods, treatment may be justified when infestations reach or exceed 4-5 small worms plus eggs per 100 terminals and 5% of the squares and small bolls have been damaged by worms.

**Saltmarsh caterpillar** egg masses and feeding has been observed in cotton in the region. Saltmarsh caterpillar moths lay their eggs in patches (similar to the beet armyworm) on the undersides of host plants including cotton. Newly hatched larvae feed together on the bottom side of leaves and again the damage resembles beet armyworm. The larvae are hairy even in the early stages and soon they take on the characteristic "wooly bear" appearance. The insect is usually a problem on the edges of fields and in areas where alternate host plants are available. They can be severe defoliators when present in large numbers and they may migrate in mass from one field to another. Tachinid flies often attack medium sized saltmarsh caterpillars and the eggs of this fly are often observed on the surface of the caterpillar; this observation usually signals a rapidly declining larval population.

It appears to me that the **leafminer** infestation is over. These insects, larvae of tiny flies, feed between the surfaces of leaves, creating a narrow, meandering track. The larvae are yellow in color and can be found at the ends of mines unless they have emerged and dropped to the ground to pupate. One indication that the infestation is over is the presence of black insects in the mines instead of the yellow leafminers. The black insect is a parasite on leafminers. RDP

## BOLL WEEVIL UPDATE

Second generation boll weevils should be emerging, if present, in fields that are in the 4<sup>th</sup> week of bloom. If you know about a heavy field infestation inside the boll weevil eradication zone please let me know. I need to collect boll weevil infested squares for insecticide monitoring.

Boll weevil numbers in pheromone traps in Nueces and San Patricio Counties for the 6 year average (1977-1982) along with this season compared with last season are shown in Table 1. The Wharton County trap line operated by Dan Fromme is shown for comparison outside the eradication area. The goal, total elimination of boll weevils, is one of slow attrition until the population cannot maintain itself. It requires increasingly aggressive action, as I'm sure you have observed this season.

Insecticides include Lorsban, Asana, Karate, Baythroid and others. RDP

**LATE SEASON WEED PROBLEMS**

To say that crop conditions are mixed in the South Texas area is almost an understatement. Certain areas and fields have been "zeroed out" and destroyed while others a short distance down the road have excellent yield potential at this point in time. Weed situations are almost as mixed over the area.

Weed combinations giving the most problems this season seem to be several look-alike plants. Do you have any of these? Can you tell them apart as seedlings? As mature plants most producers can easily tell them apart but the key is proper identification as a seedling. Most can be controlled as small seedlings with the proper choice of chemical. The key is proper identification and control in the seedling stage.

Many of the better products being used today are very species specific. Look-alike plants can give late season problems when a treatment was applied to control a specific weed problem, however, another was in fact the culprit. This type of failure is becoming more common. Once mis-identified and left uncontrolled in a single year the next season proves to be very troublesome, i.e. there are many seeds and potential plants present.

How's your seedling weed ID-IQ? Can you tell the following look-alike's apart as seedlings? A good way to start is to examine mature plants in fields now to identify next year's weed problems. Take field notes on specific weed:field locations.

Some common, troublesome seedling look-a-likes: Pigweed or Waterhemp, Cocklebur or Sunflower, Silverleaf nightshade or Texas Croton, Texas panicum or johnsongrass, and Burcucumber or Smellmelon. JEB

**ACTARA, CENTRIC & PLATINUM INSECTICIDES LABELED**

EPA has registered several thiamethoxam insecticide products from Syngenta Company (listed above). It marks the first approval of thiamethoxam for foliar and soil usage in crops. EPA previously had granted registration of the seed treatment, Adage, which contains the same active ingredient. Thiamethoxam is a neonicotinoid insecticide that has an excellent safety profile. Centric is registered for use on cotton for aphids, thrips, tarnished plant bugs, whiteflies and fleahoppers at the rate of 3 oz product/acre. RDP

Table 1. Boll weevils per pheromone trap **per month**

Month	Wharton County <sup>a</sup>		Nueces & San Pat. Co.		
	2000	2001	6 yr. avg <sup>b</sup>	2000	2001
Jan	4.5	0.25	5.3	9.93	0.00
Feb	4.2	0.09	5.5	1.60	0.00
Mar	29.7	5.88	7.7	1.72	0.11
Apr	103.8	36.32	7.4	1.27	0.11
May	47.4	14.04	2.8	0.83	0.06

<sup>a</sup> Traps outside the boll weevil eradication zone operated by Dan Fromme, IPM agent.

<sup>b</sup> 6 yr avg is 1977-1982 by Segers etal.

**WATCH FOR SORGHUM INSECTS**

Late blooming sorghum should be inspected daily from the time fields reach 20%, until they are past 80% bloom for sorghum midge. To determine if adult midges are in a sorghum field, check at mid-morning. Sorghum midge adults are most abundant then on flowering grain heads. It is OK to check earlier, but if their numbers are low, it will require a return trip to the field during mid-morning to noon to see if the infestation has increased. Often it takes that extra time for the insects to move from the earlier fields to the blooming fields. We still use the level of about 1 adult midge per head as the economic threshold for treatment, but it also depends upon the yield potential and control cost as shown in the following table.

Economic injury levels based on number of adult sorghum midges per flowering grain head of a susceptible sorghum hybrid.

Control cost (\$) per acre	Crop market value (\$) per acre								
	100	125	150	175	200	225	250	275	300
6	2.4	2.0	1.6	1.3	1.2	1.1	0.9	0.8	0.8
8	3.0	2.5	2.2	1.8	1.6	1.4	1.2	1.1	1.1
10	3.5	3.0	2.6	2.2	1.9	1.7	1.5	1.4	1.3
12	3.9	3.5	3.1	2.7	2.3	2.0	1.8	1.6	1.4

View our newsletter earlier on the internet on the TPMA website (<http://www.tpma.org/>) by selecting "IPM newsletter" on the drop-down menu by going to "Coastal Bend" and "go". Another site is <http://agfacts.tamu.edu/~rparker>. Also pest management information is available at [www.txaac.org](http://www.txaac.org).

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