



Texas Agricultural Extension Service - District 11

INSECTS AND WEEDS IN FOCUS

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TEXAS A&M UNIVERSITY AGRICULTURAL RESEARCH & EXTENSION CENTER FIELD TOUR

The tour will be Wednesday, June 14 at the TAMU Center on Highway 44 between Corpus Christi and Robstown. Registration will be at 1:00 p.m. at which time exhibits concerning projects associated with the center can be viewed followed by the tour.

The tour will be to 4 sites on station and 4 sites at the Meaney Annex. Stops will include (1) narrow row planting and planting density for sorghum and cotton associated with the sorghum PROFIT initiative (C. Fernandez), (2) corn aflatoxin/sorghum ergot (G. Odvody), (3) soil chemical changes, crop yields under long-term tillage systems; nutrient responses by corn and sorghum (J. Matocha), (4) South Texas sorghum nurseries (R. Frederiksen), (5) cotton variety testing program (S. Livingston), (6) weed control technology (J. Bremer), and (7) evaluation on cotton of new systemic insecticides applied as seed and in-furrow treatments (R. Parker).

There are many more experiments underway at the center which you could view with the appropriate investigator. RDP

INSECTS OF CONCERN IN CROPS



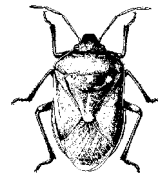
The last newsletter outlined the general situation and predictions under which we currently are observing. The following list by crop are the insects and mites

which should be scouted since they, potentially, could reach economically damaging levels: **corn** - fall

armyworm, **cotton** - spider mites, loopers, fall and beet armyworms, bollworm/budworm, stink bugs (more north) and aphids, **pastures** - fall armyworm, grasshoppers (northern counties), **sorghum** - sorghum midge on late sorghum, rice stink bugs, sorghum webworm, and headworms (corn earworm and fall armyworm), **soybeans** - stink bugs.

The spider mite situation needs some discussion. Mites have been observed building up, followed by decline, then the cycle is repeated. In most cases their numbers have not reached treatable levels. Treat when mites begin to cause noticeable leaf damage and persist. Spot treatment of fields is encouraged when infestations are restricted to small areas. Labeled products include kelthane, dimethoate, Curacron, Comite, Capture, parathion, Lorsban and others. RDP, EDB

THOUGHTS ON STINK BUG SCOUTING

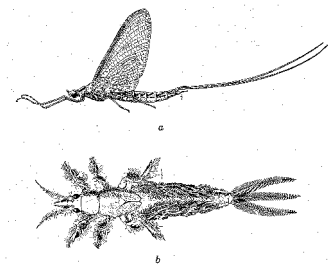


Stink bugs are likely to move into cotton in the Northern Coastal counties. The 4th and 5th instar nymphs and adults can cause significant damage to bolls that are less than 18 days old. Generally, in the southeastern U.S. 1 stink bug (2nd instar to adult) per 6 row feet is considered a treatable level where at least 30 feet of row are examined. To further enhance treatment needs, examine the inside of 12-14 day old bolls (quarter size up to 1-inch in diameter). Any inside damage (excluding worm etc.) is counted. If 20% boll damage is observed treatments are suggested. Greene and Herzog demonstrated in Georgia that treatment at levels less than 20% boll damage did not improve yields. RDP

INTERESTING INSECTS

The insect order Ephemeroptera (ephemera = for a day, short lived; ptera = wings) contains the mayflies. The order name is derived from the fact that adults seldom live more than a day or two (they don't even have functional mouth parts). The nymphs, which are aquatic may require a year or two to develop. Mayfly adults are small to medium-sized, elongate, very soft-bodied insects with 2 or 3 long threadlike tails. They are

common near ponds and streams. Nymphs, as stated above, are aquatic and feed chiefly on algae and detritus. When ready to transform to the winged stage a mayfly nymph rises to the surface of the water and molts, and a winged form flies to the shore. This stage is not the adult but is called a subimago. It molts once more to become an adult. Mayflies are the only insects that molt again after the wings become functional. Adult mayflies often emerge in great swarms. They may pile up along shores of northern lakes and on roads over 3 feet deep. They serve as food for fish and other aquatic animals. There are over 1,500 species which are divided into 17 orders by McCafferty and Edmunds, 1979, *Annu. Entomol. Soc. Amer.* 72:5-12. RDP



Mayfly (a) adult, (b) naiad

SOUTH TEXAS/WINTER GARDEN ZONE BOLL WEEVIL TRAPPING

Boll weevils captured per pheromone trap per week are shown in figure 1 below representing 1996 - 2000. Note: the figure can be viewed in color on the newsletter internet sites. Although it is difficult to observe on this scale, their numbers have been slightly higher this season compared to last season in the Coastal Bend but much lower in the Uvalde area. That can be attributed to late season (1999) production of squares and other things that inhibited early complete stalk destruction. This season the foundation has reduced treatment threshold criteria, creating some concern among growers of secondary insect outbreak, but so far excessive secondary insect outbreaks have been limited or similar to nontreated fields. Concerning boll weevils, the key to watch will be to see if the captures following cutout through defoliation are lowered compared to 1999 and to the completeness of stalk destruction. Boll weevils should now be emerging from squares, therefore trap catches should increase in hot spot areas. RDP

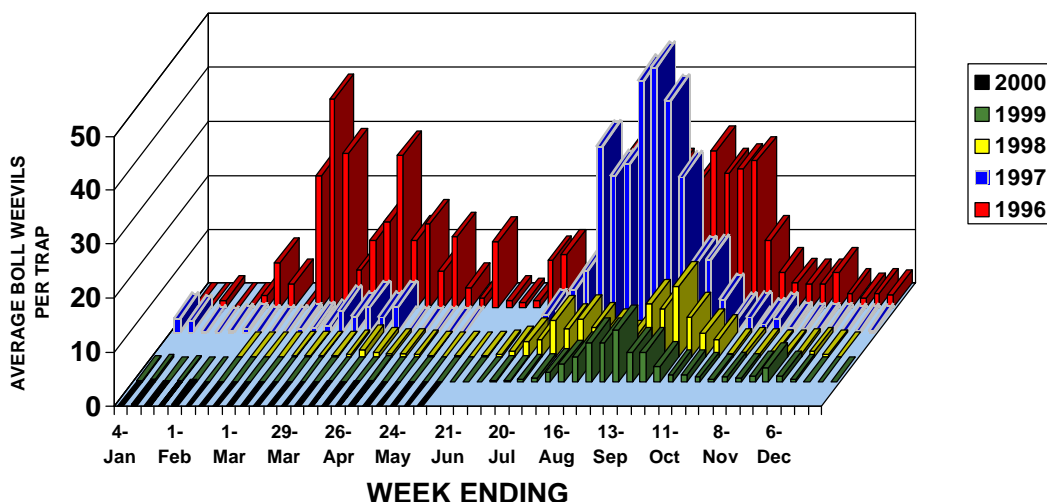


Figure 1. Boll weevils captured per trap per week in the South Texas/Winter Garden zone, 1996-2000, Texas Boll Weevil Eradication Foundation.

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". Other sites include <http://agfacts.tamu.edu/~rparker> or the Department of Entomology (<http://insects.tamu.edu/extension/>). Also pest management information is available at www.txaac.org.

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