

# INSECTS AND WEEDS IN FOCUS

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## DON'T FORGET TO INSPECT SORGHUM

Although sorghum prices are low, it is still important to give attention to insect management since some pests could cause serious crop loss. Keep a close watch on the crop each week to determine both pest and beneficial arthropod status.

**Greenbugs** declined rapidly during the last week as predators, parasites, and disease causing organisms reduced their numbers. There may be situations, especially with sensitive sorghum hybrids where control measures might be needed in the next week. Refer back to the last newsletter for more detail or consult our publication B-1220 "Managing Insect and Mite Pests of Texas Sorghum" dated June 1998.

It is obvious that **corn leaf aphid**, did cause damage this season somewhat like they did several years ago. At that time I pointed out that it was a one time in about 15 year occurrence. Although the damage has not been as severe as several years ago, the damage was apparent and expected to have some yield impact; control might have been justified in some fields on certain hybrids. Luckily, suckers were most often affected as opposed to the main whorl leaves.

**Headworms** (corn earworm and fall armyworm) should be counted in sorghum until hard dough stage of development. Both species can lay several hundred eggs on sorghum heads, but natural mortality of small larvae is very high and only a few larvae normally survive.

To examine for these caterpillars, shake randomly selected grain heads into a 5-gallon bucket, where larvae can be seen and counted easily. Inspect at least 30 grain heads in a field, and increase this number by at least 1 head for each acre above 40 acres. Because many young larvae die naturally, do not apply insecticide until enough larvae are at least 1/2 inch long. The economic injury level is about 1-2 larvae per grain head. Relatively low rates of any of the labeled insecticides should provide effective control.

Although, **stink bugs** (generally rice stink bug) have not been reported from along the Coast, reports of these insects in sorghum east of San Antonio have been received. Numbers requiring treatment have been difficult to judge, and information in our guide seems to allow too many bugs before treatment is recommended. I would suggest a level of 3 or more large nymphs plus adults per head be used as a level to initiate treatment.

Do not forget to begin inspection for **sorghum midge** the last week of May in late blooming sorghum. Generally, by the second week in June, midge numbers increase to very high numbers. RDP

## INSECT PESTS IN CORN

Mexican corn rootworm numbers have been high in most corn fields on heavier soils where corn crops have been grown without rotation. Chinch bug damage was also widespread this season. I have 9 experiments on corn that should provide excellent information for future years. Two of these experiments included genetically modified corn for rootworm control, and other tests included products that are not labeled yet. One of the new seed treatments tested was clothianidin which has now been given the name Commander (label is expected in a few years). At any rate, the following table represents part of the data from one of our corn tests.

Chinch bug numbers and Mexican corn rootworm damage to corn roots treated with at-planting insecticides, Ralph Ramsey Farm, Goliad County, 2002.

Treatment	Rate	Chinch bugs/10 plants		Root da. rating <sup>a</sup>
		3/24	4/10	
Force 3G	5 oz/1000 ft	11.8	27.8	3.1
Prescribe 600F	1.34 mg ai/seed	0.0	8.8	3.5
Commander <sup>b</sup>	1.25 mg ai/seed	0.0	4.3	3.2
Counter 20CR	6 oz/1000 ft	1.5	10.8	2.8
Aztec 2.1G	6.7 oz/1000 ft	0.8	16.0	2.6
Untreated		13.8	27.0	5.5

<sup>a</sup> Damage ratings range from 1 = no damage to 6 = 3 or more nodes of roots destroyed.

<sup>b</sup> In past years, Commander was tested under its common name clothianidin from Gustafson/Bayer. It is currently not labeled. RDP

## RESOURCES FOR COTTON PRODUCERS

Attached is a leaflet describing new resources available for cotton producers. An order form is also attached. These publications are also available on the internet at <http://texaserc.tamu.edu>. RDP

## RAINS SPARK ALTERNATIVE CROP PLANNING

Recent rains received in the Coastal Bend have stimulated intentions to follow failed cotton with sunflowers or soybeans. The investment of yellow herbicide (Treflan, Prowl), fertilizer, and field preparation already made, is building optimism for establishing a low-input crop like sunflowers to utilize those inputs already in-place. Oilseed sunflowers can be sold for nine cent a pound through Red River Commodities if proper coordination steps are taken. Sunflowers are a perfect match for fields with Treflan/Prowl incorporation and their deep taproots make excellent use of deep moisture. Sunflowers usually must be sprayed at least once for sunflower moth at 10% bloom.

For cotton fields where Staple was used, STS soybeans can be planted 30 days past the application date. Soybeans are risky at this latitude with any planting date, but with favorable rains they could produce beans if the variety selected is tolerant to chlorosis, can make a sufficient plant height to yield well, and if nothing bad happens. Staple-tolerant soybeans have been selected with the genetics that tolerate ALS herbicides like Classic, Pursuit, Septor, etc and only these varieties of soybeans are acceptable. Soybeans will use the nitrogen fertilizer provided for the failed cotton. If there was none, then soybean seed must be inoculated with an acceptable Rhizobium inoculant. If RR-Cotton was used, you need to kill the left-over RR first? Consider Gramoxone Extra, Aim or a banvel/atrazine mix (use label). As little as .25 lb/ac Gramoxone Extra has provided 100% kill. Aim was rated at 90% control. Sorghum cannot follow Staple in the same year. Forget Harmony Extra as an RR-killer; it has a 45-day wait period before most crops can be planted. Cotton fields where Cotoran was used are probably impossible to use for soybeans this year. Cotoran is an older product, a non-specific broadleaf weed killer and is a "no-go". Anytime we are planting alternative crops at this late planting date, we are taking risks and are banking on follow-up rains. This article is only to provided to discuss carryover herbicide considerations and not to encourage the planting of sorghum, soybeans or sunflowers at this date.

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## INTERESTING INSECTS

Moths and butterflies are familiar insects making up the order Lepidoptera (lepido = scale; ptera = wings), so named because of scales on the wings of members in the order. The order is large, with 112,000 species worldwide, and more than 11,000 species in Canada and the United States. Often, great numbers of individual species occur, even to

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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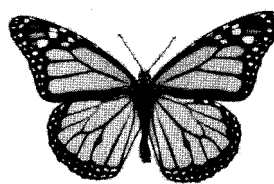
the point of blocking sunlight during great migrations. Some moths and butterflies possess great beauty and are prized as decorations. Today, living butterfly museums and butterfly gardens are popular.

Mouthparts of butterflies and moths are usually of the sucking type; a few species have vestigial mouthparts and do not feed in the adult stage; and the mouthparts in one family are of the chewing type. Some families have auditory organs which are thought to detect high-frequency sounds of bats. They are believed to use the detection system to avoid bats.

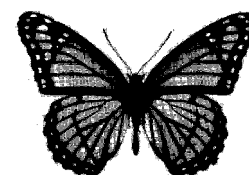
Moths and butterflies undergo complete metamorphosis (egg, larva, pupa, adult). Larvae are usually called caterpillars. Most caterpillars are harmless when handled; only a few give off an offensive odor or have stinging body hairs. Caterpillars of nearly all species have a pair of legs on each of the 3 thoracic segments and abdominal segments 3-6 and 10 usually bear a pair of prolegs. Some caterpillars, such as "inch worms" or "loopers" have fewer than 5 pairs of prolegs. A few species have neither legs or prolegs.

Most species in the larval stage feed on plants. The order contains many species that are important pests, whereas others are considered beneficial since they feed on "pest" plants. Larvae have well developed silk glands. Many use the silk to make cocoons, some use it in making shelters such as leaf rollers, leaf tiers, bagworms, tent caterpillars and webworms. Many larvae construct a cocoon whereas, still other species make no cocoon at all. Most butterflies do not make a cocoon. Most of the Lepidoptera have one generation per year, yet there are numerous exceptions when it comes to the pest species. In South Texas, most of the shade tree feeding caterpillars have only one generation per year, but most of the crop pests have multiple generations. RDP

### Examples of Lepidoptera



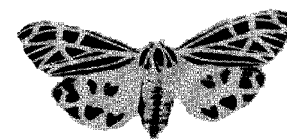
Monarch



Viceroy butterfly



White-lined sphinx moth



Tiger moth