

North Carolina Pest News

Departments of Entomology and Plant Pathology



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CAUTION !

The information and recommendations in this newsletter are applicable to North Carolina and may not apply in other areas.

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http://ipm.ncsu.edu/current_ipm/pest_news.html

FIELD AND FORAGE CROPS

From: Jack Bachelier, Extension Entomologist

Thrips and Hot Weather in Cotton

Just two weeks ago we were complaining about cool nights. Now the upcoming 7-day forecast predicts nothing under about 95 degrees F, with little, if any, rain in sight. We can only hope that this year is not setting up for a repeat of 2007.

At least for the present time, cotton can make do with limited moisture. That's not to say, however, that we wouldn't benefit greatly from 1 to 2 inches of rain. In the past three days, cotton fields from Johnston County out east to Bertie County for the most part looked rough, and most cotton in the Union County area of the Piedmont was fair to good. So, with our different planting dates, moisture levels and thrips control strategies, we seem to have all types of situations. Although immature thrips levels were only on the low to moderate side at most stops, the cool nights, wind and sand damage and feeding from adult thrips had already significantly limited seedling growth in many fields. Hard hit for the third year running was April-planted cotton, particularly behind seed treatments. Even Temik-treated cotton planted in April was hurting. As of this week, most cotton had been sprayed for thrips.

With our present heavy adult flights into cotton, re-infestation of thrips into cotton treated with a foliar material such as acephate (Orthene) for the most part has been occurring with about 6 to 7 days after the spray. Expect this to be the case for at least the next 7 to 10 days.

Although expensive, one bright spot is the apparently good thrips protection provided by treated seed plus Temik in a number of cotton fields. I, Ames Herbert at Virginia Tech University and Jeremy Greene at Clemson University all have several such treatments in our thrips trials this year, so we'll know more about this option for 2008. For the most part, several cotton fields planted around mid-May looked much better, and even most of the "sorry" early-planted cotton had decent stands.

For the coming 7 to 10 days before adult thrips migrations into cotton decline (hopefully), be sure to focus attention to the bud area and new leaves, looking for the small immature thrips. With the aid of a hands lens, figure on about a one or more immature thrips average per true leaf as a treatment guide. Thus, four or more immature thrips on four true leaf cotton would trigger a spray; less than that, probably not.

With continued hot dry weather and the further "drying down" of thrips hosts, the probably of western flower thrips becoming increasingly part of the general thrips species mix increases. Unfortunately, these insects are very hard to control. Three quarters of a pound of active ingredient, or 12 ounces of Orthene or acephate, is about as good as one can do for western flower thrips. However, Ames Herbert mentioned via telephone last week that even this rate came up short with a couple of producers up his way. As far as we know, there are no miracle materials out there, and products like pyrethroids, Cygon, Bidrin, Vydate, dimethoate and others are not going to save the day when it comes to western flower thrips.

As a general rule, five true leaf cotton can withstand feeding from western flower thrips and our more common tobacco thrips, and treatment is normally not required. Also, if the newest leaves

in the bud area are expanding straight and shiny, that often signals minimal thrips feeding. Much of our cotton should fall within this category in the coming week. Again, significant rainfall would also be a big, big blessing.

To date, we have not received reports of spider mites or cotton aphids. Our present weather conditions and high levels of seed treatments and follow-up foliar sprays would seem to be ideal for spider mite infestations, though after a very dry start and a lot of spraying for thrips in 2007, mites never materialized in a big way. We highly recommend being on the watch for mites in the coming weeks, however, especially if this hot dry weather does not break.

We just learned yesterday from the North Carolina Department of Agriculture & Consumer Services personnel that the producer fee for the 2008 Boll Weevil Eradication Containment Program will be assessed at \$1.25 per acre, lower than the earlier projection of \$2.10 mentioned at cotton production meetings, and half of the 2008 assessment. So that's some good news.

Next week, we will begin posted upcoming cotton scouting schools, both here in the *North Carolina Pest News* and at our *Cotton Insect Corner* (<http://ipm.ncsu.edu/cotton/insectcorner/>) web site.

ORNAMENTALS AND TURF

From: Steve Bambara, Extension Entomologist

Lesser Canna Leafroller Treatment

This may be the time to scout and think about treating those cannas for leafrollers. If you normally have a problem with this caterpillar on your cannas and you didn't clean up the dead plant debris this winter, now may be a good time for pre-emptive treatment with insecticide. As leaf whorls begin to open, attack by the leafroller becomes more likely.

Early larvae may appear, like leaf miners. This pest is more prominently recognized in the fall as the second generation damage becomes more noticeable and that's when county Extension agents are more likely to receive telephone calls regarding this pest.

Lesser canna leafrollers are small caterpillars (Fig. 1) related to European corn borers, pickleworms, coneworms and sod webworms. Lesser canna leafrollers overwinter as larvae in the leaves and stems of canna and the moths emerge to mate and lay eggs after the new growth emerges in the spring. When the larvae hatch, they feed within the new, rolled leaves (Fig. 2). Older larvae can actually tie the edges (Fig. 3) of older leaves together and roll the leaf. They can be about 1 inch in length.

Bacillus thuringiensis (*B.t.*) insecticides applied early are effective for this pest, as is Orthene and probably any other appropriately labeled product against caterpillars on flowers. Spray the dilute pesticide mixture directly down into the rolled leaves so that the pesticide can soak into the shelter around the caterpillars. For more information on the lesser canna leafroller, see the North Carolina Cooperative Extension publication AG-136, *Insect and Related Pests of Flowers and Foliage Plants*, on the web at <http://ipm.ncsu.edu/AG136/cater12.html>.



Fig. 1. Lesser canna leafroller exposed by unrolling leaf. Image by James R. Baker.



Fig. 2. Unrolled canna leaf showing damage. Image by Steve Bambara.

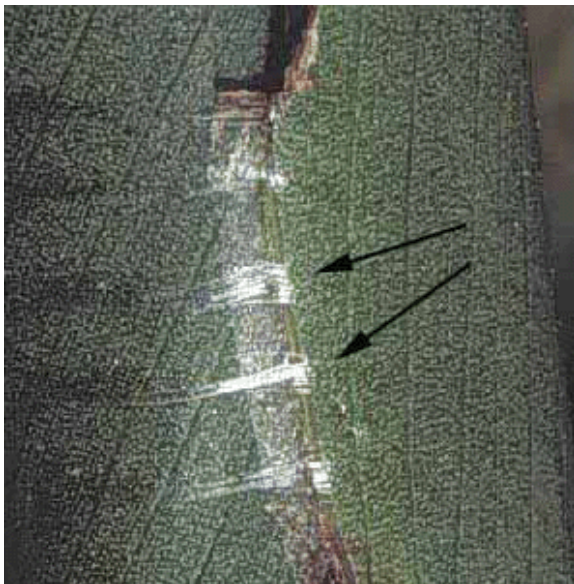


Fig. 3. Silk strands spun by lesser cann leafrollers to hold leaf closed. Image by James R. Baker.



Fig. 4. "Fuzz ball" of wasp cocoons on turf blades. Image by Steve Bambara.

Parasitoid Wasp Fuzz Ball on Turf

This week in the North Carolina State University Plant Disease and Insect Clinic, we received a specimen of the mysterious "fuzz ball" on grass stems (Fig. 4). This "fuzz ball" is made of about a dozen tiny wasp cocoons, often from a wasp in the family Ichneumonidae. Presumably, some unfortunate caterpillar was the victim of these wasps and this is the result. These wasps can be considered beneficial and should be spared by your lawn mowing.

Fluffy Flatid Planthoppers Due

I'll predict that we may see the beginnings of the flatid planthoppers within the next week or two. First to appear is the nymphal feeding hidden by fluffy, waxy splotches on the tender shoots of many plants, such as hosta, crape myrtle, hydrangea, maple, etc. (Fig. 5). The diagnostic characteristic is that they **jump** when you touch the fluff. As the summer weeks pass, the fluffy

mass will expand a little. Eventually, the adults (Fig. 6) will depart and the residue will be left behind. Usually there aren't that many over which to be concerned, but if washing them off with a hose does not disrupt them enough, insecticidal soap or other suitable insecticide should be adequate.



Fig. 5. Stems with waxy fluff. Image by Steve Bambara.



Fig. 6. Planthopper adult. Image by James Baker.

Saturn Moths Orbit Gardens

The luna moths have been out for a few weeks. I've seen the rosy maple moth (Fig. 7) this week, and received a report of cecropia moths (Fig. 10) from Randolph County. All the moths in the family Saturniidae are interesting. Almost none of them are in abundance as to be considered pests. The caterpillars are quite striking in their own right (Fig. 8). Mostly, the larvae feed on hardwood tree foliage so damage to the tree is usually insignificant. Even the jelly-doughnut-like eggs (Fig. 9) are interesting. Many of these moths are attracted to lights, so you are most likely to see them at your window or porch light at night. For more information, see the University of Kentucky fact sheet on Saturniid moths at <http://www.ca.uky.edu/entomology/entfacts/ef008.asp>.



Fig. 7. The rosy maple moth. Image by Steve Bambara.



Fig. 8. The green-striped mapleworm. Image by James R. Baker.



Fig. 9. Cecropia eggs. Image by M. H. Ferguson.



Fig. 10. Cecropia moth. Image by Ric Bessin, University of Kentucky.

Spittlebugs

I've recently noticed spittle on several plants. On certain evergreens, pine spittlebugs (Fig. 11) overwinter in the egg stage. When the nymphs hatch from their eggs, they begin to feed. Spittlebugs suck sap out of the plants with their needle-like mouthparts. As the nymphs feed, they excrete spittle (Fig. 12) that protects them from predaceous mites and insects and keeps them from drying out. (It's not really spit.) Scotch pine often exhibits flagging of twigs at each pine spittlebug feeding site. The flagging is apparently caused by *Diplodia pini*, a fungus that invades the tree through the insect's feeding punctures. Similar localized dieback has been observed on Leyland cypress. Pine spittlebugs tend to be more abundant during dry seasons, perhaps because dry weather inhibits the parasitic fungus, *Entomophthora aphrophorae*. On the other hand, high temperatures cause some mortality of the nymphs. There is only one generation per year. In July and August, female pine spittlebugs lay their eggs in dead wood or under the

bark of live stems of pines, spruces, firs, hemlock and other conifers. Heavily infested Leyland cypress, junipers or pines could be treated with Orthene or some other contact insecticide as spittle masses or when the adults are present in early summer. A strong stream of water from a hose could dislodge them enough to make an impact in the home landscape.



Fig. 11. Pine spittlebug, Image by James R. Baker.



Fig. 12. Spittlebug on Leyland cypress. Image by Steve Bambara.

INSECT TRAP DATA

From: Alan A. Harper, Lenoir County

Light Trap Data from Lenoir County

June

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*****
                                     Number of Adult Insects
*****
Date      HW      CEW      ECB      AW      AWC      GSB      BSB      TBW
*****
June 1    0       2       0       0       0       0       0       0
June 2    0       3       0       0       0       1       0       0
June 3    0       1       0       0       0       3       0       0
June 4    0       1       0       0       0       3       0       0
June 5    0       2       0       0       0       2       0       0
June 6    0       3       0       0       0       0       0       0
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Abbreviations: HW = hornworms; CEW = corn earworms; ECB = European corn borers; AW = true armyworms; AWC = armyworm complex; GSB = green stink bugs; BSB = brown stink bugs; TBW = tobacco budworms

Recommendations for the use of chemicals are included in this publication as a convenience to the reader. The use of brand names and any mention or listing of commercial products or services in this publication does not imply endorsement by North Carolina State University, North Carolina A&T State University or North Carolina Cooperative Extension nor discrimination against similar products or services not mentioned. Individuals who use chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Be sure to obtain current information about usage regulations and examine a current product label before applying any chemical. For assistance, contact an agent of North Carolina Cooperative Extension.

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