

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

ANNOUNCEMENTS AND GENERAL INFORMATION

From: Natalie Hampton, News Editor/Media Specialist, Department of Communication Services

Easter Freeze Information from North Carolina Cooperative Extension Service

Extension specialists at North Carolina State University have responded to a number of requests about how producers can identify freeze damage to crops from the recent Easter freeze. In order to provide a central place to locate this information, an Easter Freeze Information web site has been established on the North Carolina Cooperative Extension Service's Disaster web page. The address for this web site is: <http://www.ces.ncsu.edu/disaster/freeze/>. New information will be posted to this site as it becomes available.

FIELD AND FORAGE CROPS

From: Jack S. Bacheler, Extension Entomologist

Thrips on Cotton

Heavy Thrips Pressure

As North Carolina cotton producers can attest, we and our neighbors from Virginia must contend with higher thrips levels and damage than anywhere else in the cotton belt. In a series of 50 or so replicated tests conducted here and in Virginia during the past decade, untreated cotton lost an average of approximately 300 pounds of lint compared to the best at-planting treatments – more often than not either Temik 15G at 5 pounds per acre or a seed treatment followed by a first true leaf foliar spray. Unfortunately, our often cool, wet seedling “grow off” conditions, coupled with a very high ratio of thrips host acreage to small average cotton field size (approximately 15 acres) and high thrips levels, often seem to create a “perfect storm” of thrips headaches. Very hot, dry weather can also result in such high levels of migrating thrips that untreated cotton can sometimes reach upwards of 50 to 75 immature thrips per plant. Timely aggressive control of this troublesome pest complex is often an important component of profitable cotton production here. An early, vigorous cotton crop triggers earlier fruiting, helps set the stage for mid to late-season insect management opportunities (such as lower potential boll damage from stink bugs), and often allows more effective defoliation and earlier harvest.

Gaicho Grande vs. Cruiser Seed Treatment

At both the earlier and the more recent higher rates, Gaicho Grande and Cruiser have provided similar control of thrips, nearly identical reductions in plant damage, and similar stand counts, plant heights, dry weights, fruit set, maturity and yield. **A word of caution** - with either of these products, expect no more than approximately three weeks of thrips control from the date of planting. To extend this short residual activity, foliar application following a seed treatment – the closer to the first true leaf stage the better, and no more than 3 to 3.5 weeks after planting. Although it seems on the early side, a cotyledon stage spray is probably far better timed for thrips than a second or third true leaf stage application. In most cases (though certainly not always – seen in 2005 and 2006), a single application at the first true leaf stage provides cotton

seedlings with enough thrips protection time to get the plants “over the hump”, thus reducing further thrips vulnerability and often extending into a period of fewer migrating thrips.

Insecticide Seed Treatment vs. Temik

A seed treatment followed by the above timed foliar application typically provides thrips control and plant growth similar to 5.0 pounds of Temik 15G in soils without economic levels of nematodes. A seed treatment followed by a foliar spray to seedlings later than the first true leaf stage usually gives the advantage to Temik. Under conditions of poor uptake, a possible foliar application following Temik should be based on the finding of crinkled (or possum-eared) newly forming young leaves and deformed or darkened buds along with the presence of immature thrips.

Avicta and Aeriis Seed Treatments

Based on three years of evaluations in North Carolina, Avicta seed treatment (Cruiser + abemectin for nematodes + Dynasty, a three-way fungicide) and Aeriis (Gaucho Grande + thiodicarb for nematodes + fungicides put on either by a dealer or already on the distributed product) usually provides nematode control similar to Temik 15G at 5 to 6 pounds. Until further testing, the level of thrips control provided by these products should be considered identical to Cruiser or Gaucho Grande alone, thus the same need and timing of a foliar spray.

Western Flower Thrips

We have 5 to 7 thrips species that can often be found on cotton seedlings, most commonly tobacco thrips. Most species are well controlled with at-planting and/or foliar insecticides, unless migrating adult and established immature thrips are present at very high levels. Unfortunately, difficult to control western flower thrips sometimes make up a portion of the overall thrips population. This species is both difficult to control with seed treatments and with foliar applications at conventional rates. For example, in a 2006 test near Rocky Mount, Temik alone at 5 pounds of product per acre controlled 63 percent of adult western flower thrips compared with 30 percent control with the seed treatments plus an Orthene spray at 4 weeks after planting. Control of adult tobacco thrips at this time was 100 percent with Temik and 96 percent with the seed treatment plus Orthene..

Cotton Aphids and Spider Mites Increases

In a 2004-2005 Independent Crop Consultants’ Survey, of the consultants reporting 100 percent Temik use by approximately 150 cotton producers, 6.8 percent of their cotton acreage was treated for cotton aphids. The producers of consultants reporting an average of 75 percent seed treatment use (usually followed by a foliar spray for thrips) sprayed 15.7 percent of their cotton acreage for cotton aphids, a 2-fold increase. With spider mites, although overall spraying was less, the difference was more dramatic, with the high Temik users treating 0.58 percent of their cotton acreage for spider mites and seed treatments users (seed treatment + foliar spray) treated 5.3 percent of their acreage, a difference of approximately 9-fold. Cotton producers electing to use the seed treatment plus foliar spray route should on the alert for greater potential economic infestations of one or both of the above pests.

Late Planted Cotton

In cotton planted after approximately May 15 to May 20 in North Carolina, a seed treatment alone or Temik 15G at the lower 3 pound rate usually provides adequate thrips control due to quicker seedling “grow off” and generally declining thrips levels in the two to three weeks following this late planting.

All Clear

In essentially all of our research trials, when the cotton plants have an average of approximately 5 to 6 true leaves with adequate moisture levels and reasonably warm weather, thrips control should no longer be necessary.

ORNAMENTALS AND TURF

From: Stephen B. Bambara and Christine A. Casey, Extension Entomologists

Aphids on Iris

Last week, we mentioned that aphids (Fig. 1) are present on certain plants. Specifically, this past week, aphids have exploded on Iris foliage and stems. Insecticidal soap is a good management product, but if there are not too many consider just wiping them off. Unless numbers are severe, there will be little damage of any consequence. However, later in the season, tiny yellow spots may occur long after the aphids have disappeared.



Fig. 1. Aphids on iris. Image from Steve Bambara.

Crane Flies

Adult crane flies (Fig. 2) have been seen sitting around on sides of houses and resting on foliage. They are often mistaken for a giant mosquito, so expect some calls from panicked homeowners. They are completely harmless as adults, lacking sufficient mouthparts to bite anything. Large

grey/brown maggots from 1 to 2 inches may be found in wet or damp areas. They are rarely abundant enough to do any damage and typically are not feeding on healthy growing root tissue except in rare situations. For more information and a link on how to tie a fishing fly that looks like a crane fly, see *Ornamental and Turf Insect Information Note No. 129* available on the web at: <http://www.ces.ncsu.edu/depts/ent/notes/O&T/lawn/note129/note129.html>.



Fig. 2. Adult crane fly. Image by Bart Drees, Texas A&M University.

Galls on Maples

Maple trees have several common and dramatic leaf galls (Figs. 3 and 4) caused by different arthropods. None are considered harmful to the health of the tree. Homeowners may not have that same opinion, but regardless, there is little that can be done of a practical nature to reduce their presence. It will be interesting to see how the late freeze may affect them this season. Maple bladder gall, common on silver maple, is caused by an eriophyid mite.



Fig. 3. Maple spindle gall caused by eriophyid mite. Image by John Weidhaus, Virginia Tech University (forestryimages.org).



Fig. 4. Galls on maple. Image by Bradford Walker, Vermont Forestry Department (forestryimages.org).

Maple eyespot gall on red maple (Fig. 5) is caused by a midge, *Acericecis ocellaris*, also called the maple leafspot gall midge.



Fig. 5. Maple eyespot galls on red maple. Image by Steven Katovich, U. S. Forest Service (forestryimages.org).

Boxwood Leafminers Now Appearing at a Shrub Near You

Now would be the time to treat for boxwood leafminer adults. As the new tender boxwood foliage fills out, leafminer flies (Fig. 6) will emerge from the older leaves. Females lay eggs in the leaf tissue from the underside of the new leaves. Orthene, imidicloprid or pyrethroid can be used as a foliar spray, before or during adult emergence. Imidicloprid may be used as a soil drench in the root zone almost anytime. A correctly applied soil drench should give two years protection. For more information, see *Ornamental and Turf Insect Note No. 16* available on the web at: <http://www.ces.ncsu.edu/depts/ent/notes/O&T/shrubs/ort016e/ort016e.htm>.



Fig. 6. Boxwood leafminer flies. Image by J. R. Baker.

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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