



Cotton Insect Newsletter

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Edisto Research & Education Center in Blackville, SC

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Crop Situation

RAIN!!! Hallelujah! Thank God for sending the rain via “Barry”. The USDA NASS South Carolina Statistical Office had us at about 98% planted on 3 June 2007, ahead of the 5-yr average of 92% planted acres. Also reported was progress of 1% squaring, just behind the 5-yr average of 2%. None (0%) of the state’s cotton crop was reported to be in excellent condition. The remainder was reported as 28% good, 66% fair, 6% poor, and 0% very poor. These are observed/perceived state-wide averages.

“Natural Refuge” for Bollgard II Cotton

Here is the latest on refuge requirements in cotton, if you have not already heard the news. As of last Friday, a structured non-Bt refuge is no longer required for BOLLGARD II cotton east of Texas. This only applies to BOLLGARD II cotton – it does not apply to BOLLGARD cotton. It also does not yet apply to WIDESTRIKE cotton. As of now, BOLLGARD and WIDESTRIKE still require a structured non-Bt cotton refuge. See page 5 at the following link for details on refuge requirements:

<http://www.clemson.edu/psapublishing/pages/ENTOM/IC97.PDF>

What does this mean? Well, if you are still planting late cotton because of the dry weather and Easter cold snap and you plan to plant BOLLGARD II cotton and have refuge plans for the BOLLGARD II cotton, you do not have to plant the structured refuge for BOLLGARD II fields. You still have to have a structured refuge for BOLLGARD and WIDESTRIKE. If you have already planted your cotton crop and have refuge fields for BOLLGARD II, you no longer have to keep the 5% untreated option for your BOLLGARD II cotton. You can now treat those 5% fields with insecticides for caterpillars. If you are replanting fields with BOLLGARD II and associated non-Bt refuge, you do not have to plant the untreated non-Bt cotton THAT WILL SERVE AS A REFUGE FOR BOLLGARD II.

**** THIS ONLY APPLIES TO BOLLGARD II COTTON AND ASSOCIATED NON-BT REGUGE! ****

What is a “natural refuge”? First of all, what does any refuge provide? The structured non-Bt cotton refuges that we have been using since 1996 have one purpose – to provide a safe haven for production of susceptible insects that have a reasonable “shot” at mating with any resistant insects that emerge from the associated Bt cotton field. This interbreeding of susceptible and resistant moths helps dilute the resistance genes, delaying development of resistance. To increase chances for these matings is the reason refuge fields have to be close to Bt fields. A natural refuge for Bollgard II cotton is where crops and plants other than non-Bt cotton (wild plants, corn, peanuts, grain sorghum, and other crops) naturally provide enough susceptible insects to mate with any resistant insects. The short version is that EPA decided, based on data analyses, that there are enough hosts



for major caterpillar pests of cotton to eliminate the requirement for a structured refuge for Bollgard II cotton, given the enhanced efficacy of Bollgard II cotton.

See below for details I might have missed.

<http://www.agfax.com/news/2007/06/bt2natural.htm>

<http://monsanto.mediaroom.com/index.php?s=43&item=495>

News from Above the Lakes

John Boswell in Williamsburg County provided these observations late last week: “The cotton fields that I have been in here in Williamsburg County are looking rather good in spite of the dry weather. We have cotton from the 4 leaf stage down to just emerging. Cotton that was planted minimum till looks a little better than conventional planter cotton. There is much less soil water loss with minimum tillage. One farmer refers to his minimum tillage as a poor man's irrigation.”

Dr. Francis Reay-Jones at the Pee Dee Research and Education Center reported late last week that “thrips seem to be the only problem right now on cotton above the lakes. Because of the lack of rain, at-plant treatments do not appear to be adequately controlling thrips. According to Vic Bethea and a couple of farmers in the area, Orthene is a popular choice to suppress them.”

News from Below the Lakes

No news to report this week. This is your turn for input – send your comments and observations to me.

Printed Cotton Insect Recommendations

Copies of the newly revised “Cotton Insect Management” (IC 97) recommendations are available at your local county office. You can visit the following website for an electronic version of the recommendations:

<http://www.clemson.edu/psapublishing/pages/ENTOM/IC97.PDF>

Need More Information?

Log on to the following webpages to view important cotton management recommendations, data, and historical cotton insect newsletters:

<http://www.clemson.edu/edisto/cotton/cotton.htm>

<http://www.clemson.edu/scg/ipm/cotton.html>

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THRIPS (FOLIAR SPRAYS)

Product	Product/acre	Lb ai/acre	Acre/gal	REI	PHI	Comments
dicrotophos (R) Bidrin 8 E	1.6-3.2 oz	0.1-0.2	40-80	6 d	30 d	3.2 oz limit pre-square
acephate Orthene 97 Orthene 90 S Acephate 90 S	2.5-3.0 oz 2.67-3.2 oz 2.67-3.2 oz	0.15-0.18	- - -	24 hr	21 d	
dimethoate Dimethoate 4 EC	4-8 oz	0.125-0.25	16-32	48 hr	14 d	
methamidophos (R) Monitor 4 EC	3.2-6.4 oz	0.1-0.2	20-40	48 hr	50 d	

Generally a soil insecticide used at planting will protect seedling plants from the severe stunting that is characteristic of thrips injury. Occasionally, however, conditions will be unfavorable for proper uptake of systemic insecticides (too cool, dry soil, excessive moisture, etc.) and plants can be severely damaged. **Foliar treatments will be most effective when applied to cotton seedlings prior to unfolding of the second true leaf.** At this growth stage a foliar insecticide treatment may be needed when two or more thrips are found per plant. Shake each plant (randomly select 25 or more) into a coffee cup or a similar utensil to facilitate counting. When most plants have severely damaged growing points and immature thrips are present, one or more foliar treatments may be needed to allow the plants to resume normal growth and development. Examine plants 5-7 days after the initial treatment, and treat again if immatures are still present on most plants. When the newly unfolded leaves of infested plants are free of damage, and plants appear to be growing at a normal rate, further applications of insecticides will have little benefit. Treatments applied beyond the four-leaf stage of growth may actually be counter productive, as these would likely reduce beneficial populations and result in early-season problems with other pests.

Sincerely,

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