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Bollworms

Now that cotton has begun to square with blooms and bolls soon to follow our attention turns to the next important phase of cotton production which is scouting for insects and control measures when they reach economic thresholds. Along with insect control, Cotton PGR's and boron should be on producers minds which were discussed in an earlier news letter. Insect pressure has been elevated in other crops this year and there is no reason to suspect that that will not be true for cotton. Entomologist in both North Carolina and Virginia have been testing bollworms for pyrethroid resistance this spring and have found that a higher number than normal have survived. This means there is a possibility that there could be control failures with pyrethroids on bollworms not only in cotton but other crops as well. What can we do to reduce this possibility?

- Spray pyrethroids only when economic thresholds are reached.
- Do not cut rates.
- Treat when worms are small
- Use other insecticide modes of action where possible.
- Alternate to other insecticide modes of action. Do not use a
 pyrethroid in back to back applications. This does not mean
 using Baythroid in the first spray and Karate in the next as
 both are pyrethroids and have the same mode of action.
- Tank mix with other modes of action.

We do have an advantage in cotton with our Widestrike and Bollguard II varieties containing the Bt gene which does a good job of controlling budworms, bollworms, and other worm species. Treatment Threshold is 3 worms one-eighth inch or larger per 100 squares or bolls.

Stinkbugs

Stink bug levels appear to be on the high side so far this spring and summer, although their potential damage to this year's cotton crop will be determined over the next 5 weeks, primarily based on this crop's attractiveness and susceptibility to brown and green stink bugs. Generally, the wetter the weather, the greater the potential damage from stink bugs. Some cotton is now beginning to bloom. Producers should be encouraged to assess internal damage to quarter-size bolls by approximately the end of the first week or early in the second week of bloom. Remember that weeks 3-5 of the bloom period constitute the interval when cotton is most susceptible to yield-reducing boll damage. The more protective recommended 10% internal boll damage threshold recommended during this time period is also when scouting really pays for itself - and then some.

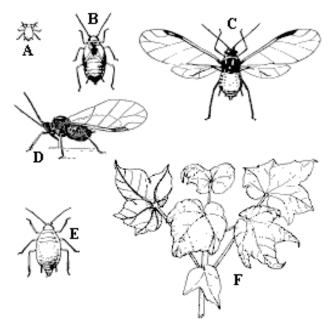
Plant Bugs

We have had some fields treated for a combination of square retention counts approaching or less than 80% along with adult plant bugs. Producers should be advised to withhold treatment until both square retention drops to the range of 80% or less and 8 or more plant bugs per 100 sweeps are found. A few Non- Pyrethroid options for plant bugs include: Bidrin, Acephate, Centric, methyl parathion, malathion.

Spider Mites

Given that we have already received several reports of building mite populations this past week and because this species often thrives in hot dry weather, cotton fields should be monitored for this pest. Spider mite infestations are characterized by reddening or "bronzing", then yellowing and finally by defoliation of primarily lower leaves. Our suggested threshold is "general leaf discoloration (chlorosis, bronzing, or both), plus live mites over most of the field and defoliation from mites in 25 percent or more of the field." If rain is imminent, we advise producers to delay treatment and reevaluate 3 to 4 days after the rain due to 1) the potential development of a mite fungal pathogen and 2) rainfall relieves cotton plants of much of the stress from mites under dry conditions. A high water volume (a minimum of 10 or more gallons of finished product per acre) and pressure (50-70 psi) are recommended for mite control with all materials. A few Non-Pyrethroid options for spider mites include: Zephyr (abemectin), Dicofol, Oberon, Comite, and Fujimite/Portal.

Cotton Aphids



Cotton aphid. A-B, Nymphs. C-E, Adults. F, Damage.

In North Carolina, we also often seem to have more reports of cotton aphid infestations during wetter weather. However, in tests conducted here and elsewhere in the Southeast, we have very few cases of yield losses resulting from cotton aphid infestations if adequate or excessive moisture levels exist. Yield losses from cotton aphids primarily result from large populations throughout fields that then become economic infestations when cotton dries down quickly and the subsequent moisture stress adds to the similar stress caused by aphid feeding. Quite often aphid populations do not have to be treated for, due to aphid mummy parasitoids and a parasitic fungus that come to the rescue.

Products of choice include: Assail, Centric, and Admire.

Cotton Insect Update

We have blacklight traps setup at Gerald and Willie Howell's. The information from these traps is available at the following link:

http://wayne.ces.ncsu.edu/2012/07/black-light-trap-insect-counts-in-cotton-2012-3/



North Carolina State University has a great website that Dr. Jack Bacheler maintains with all the latest updates on insect problems. You can access that information at:

http://ipm.ncsu.edu/cotton/insectcorner/ or call The Cotton Insect Hotline, online at 1-800-662-7301 (then enter 4)

Upcoming Events



- July 24, 2012—Pesticide License Exam—Wayne Center, 1:00 p.m. To register, call 919-731-1521 and tell us the type of pesticide license you wish to test for.
- September 27, 2012, Pesticide Recertification class offering 2 hours V (Safety) recertification credits for private applicators, 10:00 a.m.—12:00 noon at the Wayne Center. Call 919-731-1521 to register. Remember to bring your pesticide license to the class. Your card must be scanned in order to receive recertification credits.

September 27, 2012, Pesticide Recertification class offering 2 hours X recertification credits in subclasses A,B,G,H,I,K,L,M,N,O,T,D categories.
 Call 919-731-1521 to register. Remember to bring your pesticide license to the class. Your card must be scanned in order to receive recertification credits.



I am pleased to be able to provide you this educational information.

Extension Agent, Agriculture and Natural Resources

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 does not imply endorsement by the North Carolina Cooperative Extension Service 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 and examine a current product label before applying any chemical. For assistance, contact an agent from North Carolina Cooperative Extension.