NC STATE UNIVERSITY

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Ag News

In This Issue

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Off the Top...

Pesticide Credit Opportunities

Cotton and Soybean Scouting School...

A Cotton and Soybean Scouting School will be held on **Thursday, July 21, 2016 at 10:00 AM.** The class will meet in the auditorium of the J. W. Faison Building. After slides and discussion, the group will move to the field.

Two hours of Pesticide credit will be available for Ag-Pest plant, Research and Demonstration, Dealer and Private Applicators. **'N O D X' credits available.**

Pesticide Recertification Classes

September 7 – J W Faison Auditorium
10:00 AM-12:00 Noon; and
1:00 PM – 2:00 PM, two hours of pesticide credits "V" for private pesticide applicators.

Upcoming Events...

July 21 – Cotton and Soybean Scouting School See above
July 28 – Northeast Ag Expo Field Day, Lynn Hobbs Farm, Gates County
August 11 – Bertie County On-Farm Tour – See page 4.
August 31 – Northampton County Replicated Cotton Trial Tour. See page 4.
September 7 – Pesticide Recertification – see above.
September 8 – Peanut Field Day in Lewiston

September 15 – Cotton Field Day, Rocky Mount, 11:45-4:30

Persons with disabilities and persons with limited English proficiency may request accommodations to participate by contacting R. Craig Ellison, County Extension Director, at telephone # 252-534-2711, craig_ellison@ncsu.edu, fax # 252 534-1827, or in person at the County Extension Office at least seven (7) days prior to the event.

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Stink Bugs on Cotton….

Upcoming quarter-sized boll assessments for internal damage from stink bugs should ideally begin within a week or so of bloom initiation. Pre-blooming cotton should not be in need of protection from stink bugs, and sprays during the first two weeks of bloom should be the exception. Be sure to place an emphasis on weeks three through six of bloom, as research conducted here and in South Carolina and Georgia suggests that this may be the period of maximum exposure to possible yield losses from stink bugs. Generally, earlier planted cotton fields tend to have higher initial stink bug levels than later planted, less mature cotton fields. The reverse is true later in the season when the later planted, less mature cotton fields, are more vulnerable.

Suggested threshold based on most recent research

First week of bloom	50% damage bolls
Second week of bloom	30% damages bolls
Third – fifth week of bloom	10% damage bolls
Sixth – week of bloom	20% damage bolls
Seventh week of bloom	30% damage bolls
Eighth week of bloom	50% damage bolls

Thresholds – Plant Bugs

Post-bloom: 0 to 6 percent dirty blooms – no additional scouting for plant bugs is indicated for 5 to 7 days. Count any brown anthers as damaged. These "thresholds" should be used along with other assessments, if indicated. Higher dirty bloom levels indicate need for additional assessments (ground cloth).

10 to 50 percent initial internal damage to quarter-sized bolls based on week of bloom, as part of stink bug sampling.

2 to 3 adults and medium to large nymphs/5 row feet with a beat cloth (ground cloth).

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Managing Plant Bugs in Blooming Cotton – Written by Dominic Reisig

When cotton blooms, it's time to switch sampling and thresholds for plant bugs. This previous article (https://cotton.ces.ncsu.edu/2016/06/gear-up-to-scout-plant-bugs-in-preblooming-cotton/) covered management of plant bugs pre-bloom. There is no magic switch point, but once cotton blooms for a couple weeks, monitoring square retention becomes a less reliable way to make treatment decisions, as does the sweep net. For this reason, we recommend a threshold of 2-3 plant bugs per drop cloth sample (1 per row foot) during the bloom. During early bloom, consider using both a sweep net and a drop cloth for sampling. You can visit the cotton scouting guide (https://cotton.ces.ncsu.edu/insect-scouting-guide/) for detailed information and a video for how to use the drop cloth correctly.

Dirty bloom from plant bug feeding

Remember that plant bugs will feed on larger squares and small bolls during bloom. The feeding on the large squares can result in dirty blooms. You should never treat based on the presence of dirty blooms, but they are an indicator that you should use your drop cloth in the field and scout.

Once threshold is reached during bloom, it would be a good idea to switch away from a straight neonicotinoid product. Options are many, but you could pick up plant bugs and stink bugs both with pyrethroids and Bidrin. In the Midsouth, they have found that mixing Diamond with pyrethroids has lengthened their spray intervals. They have also found

that back to back sprays within 4-5 days of the first spray has improved control over back to back sprays made one week apart. The take home for us is to rotate chemistry and to scout more frequently, even twice a week. If you chose to apply Diamond, keep in mind that it is an insect growth regulator and that only immature insects grow. So it will only be active on nymphs, not adults. If you want to kill adults, you will need to mix in some other knock down product.

Sugarcane Aphid Now Present in NC – 2016 – Written by Dominic Reisig

Last year, we first found sugarcane aphid during the end of July at treatable levels. Last week it was found on sorghum in Northampton County. Very likely it is in counties south of here at low levels and will again spread throughout our state.

Identification and insecticide information on this pest can be found here (https://entomology.ces.ncsu.edu/2015/07/first-report-of-sugarcane-aphid-in-nc-sorghum-already-treating/) . I would steer clear of Lorsban and spray only Sivanto and Transform. Start scouting field edges, bottoms of plants, and bottoms of leaves. Treatment thresholds are below:

Growth Stage	Threshold
Pre-boot	20% infested plants with localized area of honeydew and established aphid colonies
Boot	20% infested plants with localized area of honeydew and established aphid colonies
Flowering-milk	30% infested plants with localized area of honeydew and established aphid colonies
Soft dough	30% infested plants with localized area of honeydew and established aphid colonies
Dough	30% infested plants with localized area of honeydew and established aphid colonies
Black layer	Heavy honeydew and established aphid colonies in head (treat to avoid problems at harvest)

Use at least 4 oz of Sivanto or 1.5 oz of Transform. A maximum of 3 oz of Transform can be used per year.

Using Tissue Analysis to Monitor Cotton Nutrition. . . .

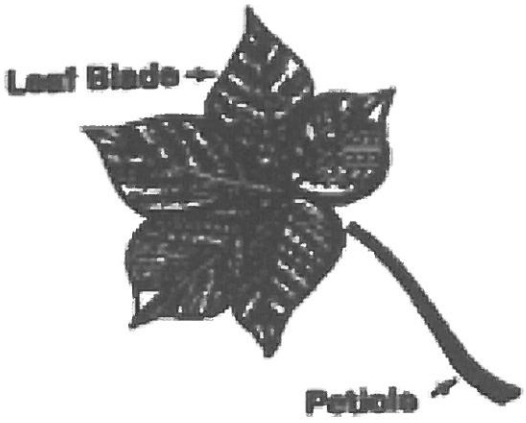
The NC Department of Agriculture & Consumer Sciences encourages growers to use tissue analysis to optimize cotton yields. Tissue analysis can be used to fine-tune fertilizer application rates and to detect hidden hunger. Because it is difficult to get nutrients into cotton plants after the 3rd to 5th week of bloom, we recommend collecting a total of three samples: one the week before first bloom, one at first week of bloom and a final one at third week of bloom. This schedule allows time for fertilizer adjustments to be completed at least by the 4th week of bloom. Further, we recommend submitting tissue samples any time a problem is observed to determine if poor nutritional status is involved.

Collecting Predictive Tissue Samples

Cotton tissue samples should include both leaf blades and petioles. Petioles should be separated from the blades in the field. The analysis this year will include concentrations of NO_3-N, P, K, Ca. Mg, S, Fe, Mn, Zn, Cu, B in the petiole and concentrations of total-N, P,

K, Ca, Mg, S, Fe, Mn, Zn, Cu, B in the leaf blade. ***The total fee for analysis of leaves and petioles is $7 per sample.***

Accurate recommendations from tissue analysis depend on good sampling technique, including 1) collecting samples at the same time of day preferably between 9 a.m. and 1 p.m.; 2) selecting the proper plant part (the most recent mature leave, which is usually the 4th leaf from the growing point on the *main stem only)*; 3) submitting sufficient material (25-30 leaf blades and petioles per sample); 4) separating the entire petiole from leaf blade at sampling; and 5) providing all details – growth stage and week, planting date, fertilization history, environmental conditions, appearance, problems, disease/insect pressure – on the *Plant Sample Information* form.



Bertie County On-Farm Tour

A tour of research plots at the Peanut Belt Research Station in Lewiston is scheduled for **Thursday, August 11, 2016.** Participants will meet at the Peanut Belt Research Station by **8:30 a.m.** to register. The tour group will depart from the station at **9:00 a.m.** The tour should conclude by 1:00 p.m. with Lunch. Stops on the tour will cover a variety of topics pertaining to the production of peanut, cotton, corn, soybeans, and grain sorghum.

Northampton County Replicated Cotton Trial Tour

The Northampton County Replicated Cotton Trial Tour is scheduled for **Wednesday, August 31, 2016 at 3:30 PM.** Dr. Guy Collins will be on hand to share and discuss Cotton Variety Characteristics for 2016.

The plot is located across the road from 2624 Big John Store Road. Directions: Drive North on Peanut Farmers Market Road to Big John Store Road. Turn right onto Big John Store Road. Plot is located 1/3 mile on the right.