



NC Cooperative Extension – Hertford County Center

June 28, 2022

Hertford Crop News

REMINDER: June 30th cutoff for dicamba application in soybeans:

North Carolina dicamba application cut-off dates		
Product	Cotton	Soybean
Engenia	July 30	June 30
XtendiMax	July 30	June 30 (application after R1 prohibited)
Tavium	July 30 (application after 6-leaf stage prohibited)	June 30 (application after V4 prohibited)

Cotton Considerations

With cotton progressing along, find articles below with information regarding PGR decisions and scouting tips from Dr. Reisig. If dry conditions persist, remember when treating for plant bugs, it'll be important to start with something like Centric or Transform to prevent flaring spider mites. Tank mixing Diamond is another good option when plant bug nymphs are present. Reference this [article](#) from South Carolina's Extension Entomologist. Another report has been high levels of [False Chinch Bugs](#) being misidentified in cotton as [tarnished plant bug](#).

[NC State Cotton Production Guide – Suggestions for plant growth regulators](#)

[NCSU: "Cotton Beginning to Bloom: Pay Attention to Growth!! – 6/27/22](#)

[NCSU: "Pre-Bloom PGR Decisions \(Collins & Edmisten\) – 7/2/20](#)

Scouting Tips for the “Big 5” Mid- to Late-season Cotton Pests

1. Plant Bugs: (*Lygus lineolaris*)

Damage- squares and small bolls

Early scouting- check retention of upper squares until ~ 1 wk. into bloom; if <80% retention, sweep @ 6-8 locations in field interior; threshold = 8 bugs per 100 sweeps AND <80% retention

Later scouting- >1 wk. bloom, check for blackened squares and internal damaged small bolls; use 5-ft. black beat cloth

Threshold- 2-3 bugs per sample. Nymphs more important (don't leave), but don't discount adults

2. Cotton Aphids: (*Aphis gossipii*)

Damage- whole plant; removal of plant liquids and nutrients; leaves curl downwards; produce shiny honeydew, sometimes followed by sooty mold

Biocontrol- 3 levels of biocontrol often occur: predation, parasitoids and a parasitic fungus

Threshold- treatment only advised for high levels of aphids covering most plants and if biocontrol lacking or minimal. Rain and/or humidity often encourages fungal development

3. Two-Spotted Spider Mite: (*Tetranychus urticae*)

Damage- stippling primarily on undersides of leaves; can cause defoliation

Scouting- look for stippling, followed by reddening, then lower leaf defoliation; hand lens very helpful in detecting mites and their eggs

Threshold- treatment advised when most plants infested and mites building; can “crash” if humid

4. Stink Bugs (primarily green- *Chinavia hilare* and brown- *Euschistus servus*)

Damage- bolls up to 3 to 5 weeks after bloom; transmit fungal pathogens into boll

Scouting- begin scouting at bloom initiation; open 25-50 quarter-sized bolls per field; crush and examine inner boll wall for warts and stained lint

Threshold- varies by week of bloom (50, 30, 10, 10, 10, 20, 30, 50% boll damage)

5. Bollworm (*Helicoverpa zea*); or corn earworm, soybean podworm, etc.

Damage- can damage terminal growth, squares, bloom and flowers

Scouting- begin scouting when light or pheromone traps increase significantly in July; do not count 1st stage caterpillars; count 2nd stage (1/8-inch) or larger caterpillars; include bloom tags

Thresholds-

Bollgard 3, TwinLink Plus, WideStrike 3

4% damaged bolls OR

3, 1/8- inch or larger bollworms on squares or bolls OR

2, 1/8- inch or larger bollworms on squares or bolls on 2 consecutive scouting trips OR

1, 1/8- inch or larger bollworms on squares or bolls on 3 consecutive scouting trips

Bollgard II, TwinLink, WideStrike

25 total eggs on 100 leaves or fruiting structures (search throughout the canopy on multiple plants)

Financial Return on AMS for Nitrogen Deficient Peanuts – Dr. Jordan

In a recent post, I discussed how to address a nitrogen deficiency. I just did some calculations on the “best” case scenario with current nitrogen prices to obtain a positive return on investment of 500 pounds AMS/acre.

Assumptions:

1. A true nitrogen deficiency is present and the deficiency is present on 100% of the field (this is hardly ever the case, but I am assuming it here.)
2. If 100% of the field is expressing a deficiency, between 45 and 60 days after planting, the potential yield loss is 30% (we have observed higher and lower losses, but this is about average.)
3. Broadcasting 500 pounds per acre of AMS (current price of \$0.63/pound) results in yields close to inoculated yields in a new ground fields.

Yield potentials:

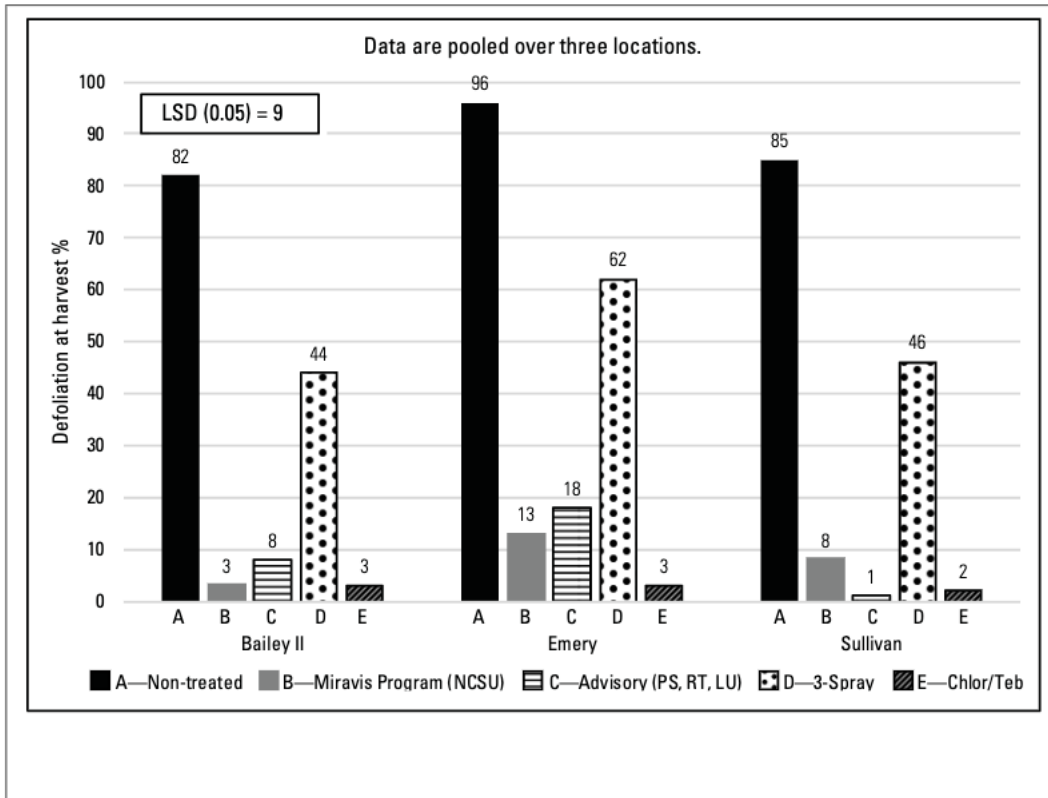
1. 4000 pounds per acre (30% loss is 1200 pounds with a financial loss of \$312/acre at \$0.26/pound peanut). In this case, for the assumptions above, there is a negative return (\$-3/acre) when 500 pounds AMS is applied.
2. 5000 pounds per acre (30% loss is 1500 pounds with a financial loss of \$390/acre at \$0.26/pound peanut). In this case, for the assumptions above, there is a positive return (\$75/acre) when 500 pounds AMS is applied.
3. 6000 pounds per acre (30% loss is 1800 pounds with a financial loss of \$468/acre at \$0.26/pound peanut). In this case, for the assumptions above, there is a positive return (\$153/acre) when 500 pounds AMS is applied.

These seem to be very marginal returns on a \$363/acre investment in AMS. Rates lower than 500 pounds can help but peanuts yield less when rates lower than 500 pounds are applied. A major assumption in these calculations is that 100% of the field will respond at this level. Most fields, unless new ground and a complete inoculant failure, will be at 50% nitrogen deficiency and often the deficient peanuts in a field are much lower than 50%. If one assumes 50% of the field is deficient, the financial returns above would be substantially lower. Additionally, if the above are realistic yield potentials we know that we can be higher or lower in any given year. That is a guess at this time of the year.

Peanut Fungicide/Insect/Gypsum Information

Peanut fungicide programs should start no later than 45-50 days after planting. For the most up-to-date guide for a peanut fungicide program, click the link [here](#).

Figure 6-2. Cultivar responses to leaf spot control programs in 2021¹



¹ Data from Ethan Foote, David Jordan, and Jeff Dunne. Five sprays were applied as follows for Miravis: chlorothalonil, Miravis + Elatus, none, Provost Silver, chlorothalonil; Advisory: chlorothalonil, Provost Silver, Revytek, Lucento, chlorothalonil; 3-spray: chlorothalonil, none, chlorothalonil + tebuconazole, none, chlorothalonil; Chlorothalonil/teb: chlorothalonil + tebuconazole sprays 1–5.

Miravis plus Elatus spray program to control leaf spot, stem rot, and sclerotinia – notes from Dr. Jordan, click [here](#).

Leaf spot advisory update emails from Dr. Shew will be coming out soon. If you would like to be included in her email list, please let me know.

Reminder: The EPA revoked the use of Lorsban in peanuts for southern corn rootworm control. As of now, there are no viable options for control. Research has been conducted utilizing 3 applications of Prevathon on a 2-week schedule for control of adults but was unsuccessful.

Best results for gypsum applications are obtained when applied in late June or early July. Moisture will be important to make gypsum soluble and the calcium available to the peanut fruit. In unusually dry years, peanuts show symptoms of calcium deficiency, even when recommended rates of gypsum are applied. For recommended rates, see the table below:

Table 3-9. Gypsum Sources and Application Rates

Source	% CaSO ₄ *	Application Rate (lb/acre)	
		Band (16 – 18 in)	Broadcast
USG Ben Franklin	85	600	—
USG 420 Granular	83	—	1,215
USG 500	70	—	1,300
Super Gyp 85	85	—	1,200
TG Phosphogypsum	50	—	2,000
Agri Gypsum	60	—	1,800
Gyp Soil	85	—	1,200
Gyp Master	68	—	1,500

*Guaranteed analysis percentage in registration with North Carolina Department of Agriculture and Consumer Services.

For any additional questions, contact Dylan Lilley, Hertford County Agriculture Agent, at 252-358-7822.

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