NC Cooperative Extension – Hertford County Center

June 3, 2022

Hertford Crop News

Plant Bug Information

Scouting and treating for plant bugs in cotton is right around the corner. A recent article from Dr. Reisig, reviews some different spray programs and considerations. Because of the regional nature of this pest, it's hard to predict the number of sprays that will be necessary, but see below thresholds for Pre and Post bloom and options for treatment. Furthermore, insecticide efficacy varies across the year, with some insecticides becoming less effective as the year progresses. In addition, growers need to be cautious using more broad-spectrum insecticides early in the season to preserve beneficial insects. We have formulated a set of recommendations to reflect these expectations.

Tarnished Plant Bug Thresholds

Pre-bloom: Tarnished plant bug sweeping advised where retention of young terminal and lateral squares in pre-bloom cotton is less than 80 percent.

- 8* plant bugs per 100 sweeps (from initiation of squaring until the first or second week of blooming).

*The sweep net threshold may be raised to 10 if fruiting begins on node 4 through 6, or lowered to 6 or 7 if fruiting has begun on node 8 or higher. Thresholds also may be lowered somewhat in stressed cotton.

Post-bloom: Post-bloom thresholds begin approximately 1 to 2 weeks after bloom initiation.

- 2-3** adult plus nymph stage plant bugs per 5 row feet taken from 6 to 8 location in the field.

** Use 2.5 foot black beat cloth between two adjacent cotton rows.

For more information, follow the link to the NCSU Tarnished Plant Bug Scouting Guide and Thresholds

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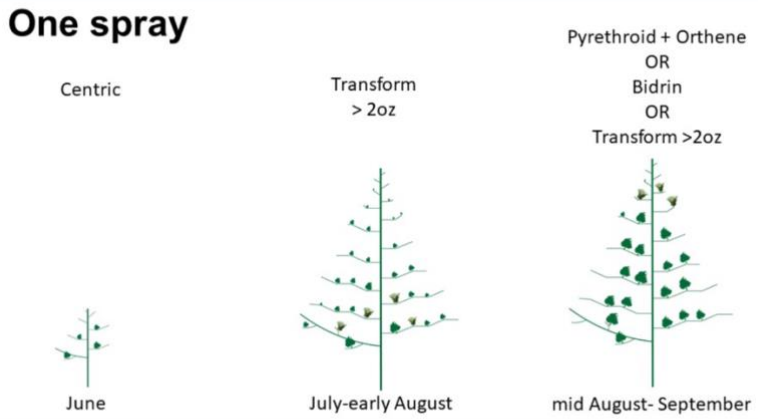
One spray



For growers expecting to spray one time during the season, select one of these insecticides if the spray is made in June, July through early August, or mid-August through September. If additional sprays are needed, do not follow with the same insecticide class (see Table 1 at end).

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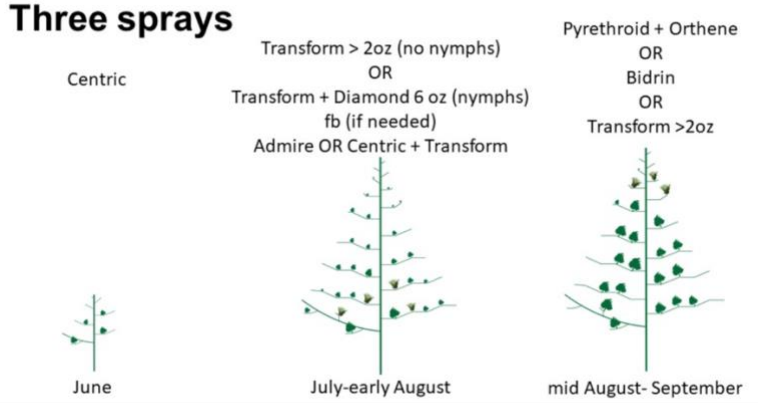
Three sprays



For growers expecting to spray up to three times during the season, select these insecticides if the spray is made in June, July through early August, or mid-August through September. If additional sprays are needed, do not follow with the same insecticide class (see Table 1 at end). fb = followed by

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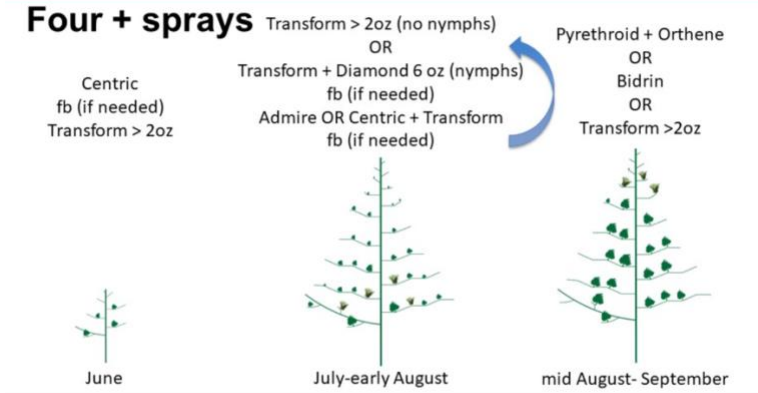
Four + sprays



For growers expecting to spray up to three times during the season, select these insecticides if the spray is made in June, July through early August, or mid-August through September. If additional sprays are needed, do not follow with the same insecticide class (see Table 1 at end), except in July and August. Try to tank mix neonicotinoids (Admire Pro or Centric) or Diamond with Transform during this period. fb = followed by

Table 1. Insecticide trade name, active ingredient, and action classification

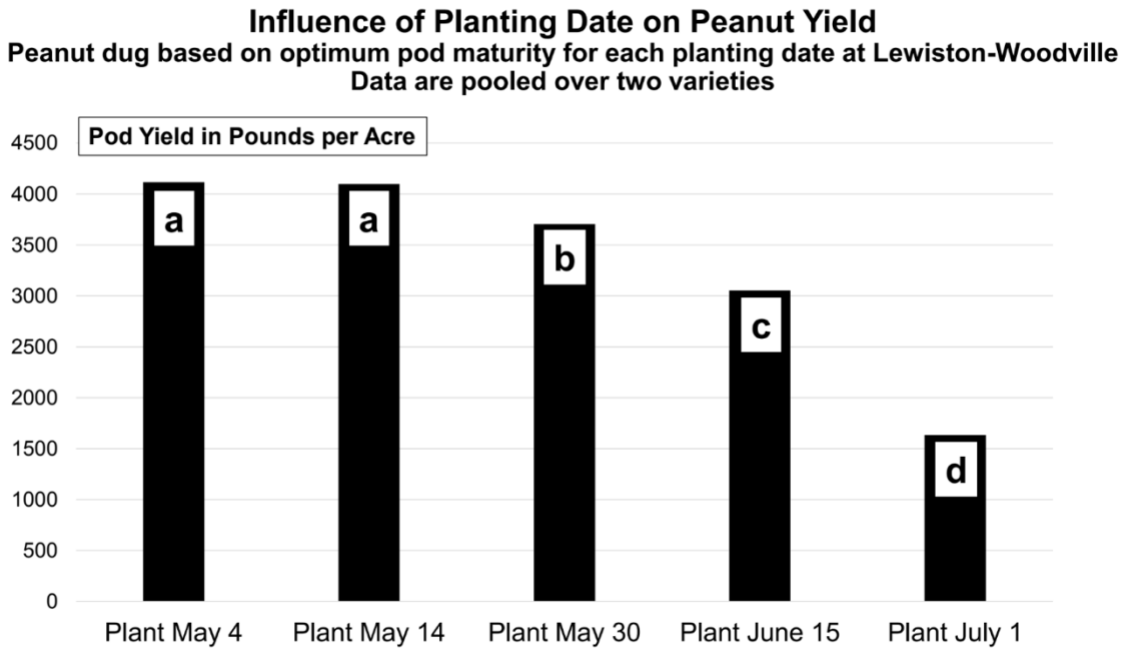
Trade name	Active ingredient	Mode of action classification	Notes
Admire Pro	imidacloprid	4a	A poor stand-alone insecticide, but good as a tank mix
Bidrin	dicrotophos	2b	Harsh on beneficials
Centric	thiamethoxam	4a	Not as effective after June
Diamond	novaluron	15	Only active on immatures
Orthene	acephate	2b	Harsh on beneficials
Transform	sulfoxaflor	4c	Considered a different MOA from 4a

June Planted Peanuts

With high amounts of May rainfall in parts of the county, there's some acres of peanuts left to still be planted. Below are comments from Dr. Jordan regarding yield as we move into June:

"From a planting date standpoint, it simply depends on the fall. The data I have attached here I think is pretty representative of what can happen. There is only a minor drop in yield when you compare late May to mid-May (in this data set it was about 350 pounds.) I have seen early May yield less than mid-May. So mid-May is the sweet spot. The drop from late May to June 15 was about 600 pounds per acre. When compared with mid-May, yield was 1,000 pounds lower for mid-June. Knowing every year is different, if they can get them in this week they will be in good shape. If it moves to late next week, approaching the June 15 yields, the decision becomes difficult and moving to soybean will likely be a better decision."

See yield information below. Also find an article written in 2018 by Dr. Jordan regarding June planted peanuts.



Peanut yield as influenced by the interaction of rainfall in June and planting date.				
		Planting date		
	Rainfall in June	May 4	May 20	June 5
Year	inches	lbs/acre		
2009	5.2	5,410 ab	6,060 a	4,970 b
2010	2.3	4,480 a	4,280 a	3,960 a
2011	4.3	3,790 a	3,270 ab	2,770 b
2012	0.1	3,990 c	4,760 b	5,890 a

Double Crop Soybean Planting

What is the best soybean maturity group to plant behind wheat? According to an article summarizing Dr. Vann's research on planting date, if you look at the mid-June planting dates,

whether you were in a low or higher yielding environment, the MG4-7 varieties cut within 5 bu/A. At mid-July planting dates, the MG5-7 varieties were the highest yielding. Later maturing groups will allow more time for growth which means yields are reduced less in these varieties. Choosing as late of a maturity group as possible that will still mature before the first frost will provide less risk.

Seeding Rate

Soybeans planted late need more seeds per acre to maximize profit, compared to full-season soybeans. Late-planted soybeans have less time to develop nodes and higher plant densities help achieve canopy closure and help compensate for the shorted growing conditions. Seeding rate targets for late planted beans should be between 180,000 to 200,000 seeds per acre.

	Planting Date		
Row Width	May	June	July
	Seed per Foot		
36"	7.8	10.6	13.3
30"	7.1	9.2	11.2
20"	5.4	6.6	7.7
15"	4.3	5.1	5.9
7"	2.2	2.5	2.8

Suggested soybean plant populations for North Carolina. Recommendations from Dr. Jim Dunphy.

Scouting and Managing Stink Bugs in Pre-Tassel Corn

With corn shooting up, some fields are not too far away from tasseling. It is critical to scout all corn when the primary ear is growing and to protect it during the two weeks prior to tasseling. See the picture below of the primary ear. When scouting, look for stink bugs one leaf above and below once you've located the primary ear.

Thresholds. Thresholds vary depending on growth stage and are based on a 100 plant sample as described below (see table). These thresholds are not percentages, but numbers. If a single plant has multiple stink bugs, this must be counted into the total. If the number of stink bugs exceeds the number in the "treat" category, treat the field even if 100 plants have not been sampled. If the number of stink bugs per plant falls between the "treat" and "do not treat" category, take more samples until a confident decision can be made.

Growth stage	Area to sample	Do not treat	Take more samples	Treat
V1 to V6	Base of plant on stalk below lowest green leaf	≤6	>7 to 12	≥13
V14 to VT	Stalk from first leaf above and below primary ear	≤4	>5 to 9	≥10
R1 to R2	Stalk at one leaf above and two leaves below primary ear	≤14	>15 to 27	≥28

Alternatively, if the entire plant is sampled, thresholds are 1 per 10 plants (V1 to V6), 1 per 8 plants (V14 to VT), and 1 per 4 plants (R1 to R2).

Insecticide control

Many insecticides in the pyrethroid class are effective for brown stink bug in corn. However, bifenthrin is the most effective both because it can be applied at a rate that contains more active ingredient than other pyrethroids and because it is more toxic to brown stink bugs. Expect only a week residual.

Two critical factors to achieve control are:

- Coverage- deliver insecticide where the stink bugs are located. Ensure canopy penetration with proper nozzle, pressure and volume selection.
- Timing- the most critical time to treat from V14 to VT is just before the primary ear is exposed. Aim to control stink bugs when the primary ear is between these stages, but preferably on the early side to avoid banana ear.

NC Climate Office Forecast

North Carolina Drought Update

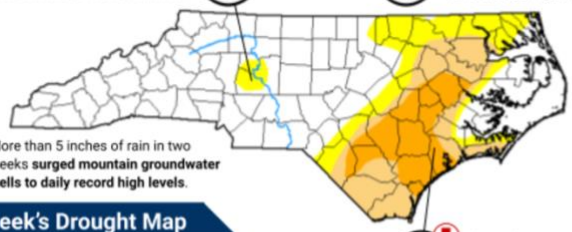
For the assessment period ending May 31, 2022

This Week's Drought Monitor of North Carolina Map

From the US Drought Monitor, authored by Curtis Riganti (*National Drought Mitigation Center*) with input from the North Carolina Drought Management Advisory Council (ncdrought.org)

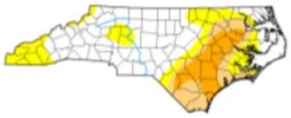
A lone dry spot lingers in the western Piedmont, which **finished the spring with a precipitation deficit of about 1.5 inches**.

Farmers in eastern NC **await more rain for corn and soybeans**, and some have started irrigating blueberries.



More than 5 inches of rain in two weeks **surged mountain groundwater wells to daily record high levels**.

Last Week's Drought Map



The 28-day average streamflow on the New River near Gum Branch has **fallen to its historical 7th percentile** for this time of year.

This infographic was created by NORTH CAROLINA CLIMATE OFFICE

Statewide Condition Summary

What's Changed? Heavy rain last weekend washed away Abnormally Dry (D0) conditions in the Mountains, while hit-or-miss showers down east limited improvements.

What's New? Recently wet areas in the west keep getting wetter, while drought-affected eastern NC remains dry. Adding to the stress are hot temperatures, which have increased evaporation and stress on lawns and crops.

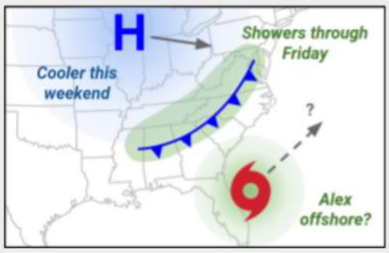
How Was Spring? The wettest spots in the past 3 months were in the Mountains, including Asheville (+3.5 inches). The Piedmont was up to an inch above its normal spring precipitation. The driest areas were in the southern Coastal Plain, including Wilmington (-4.6 inches).

Statewide Coverage By Category

Category	Coverage This Week	Change Since Last Week
D0: Abnormally Dry	13.67%	-8.99%
D1: Moderate Drought	14.25%	+0.38%
D2: Severe Drought	11.52%	-0.96%
D3: Extreme Drought	0.00%	0.00%
D4: Exceptional Drought	0.00%	0.00%

Short-Range Outlook for North Carolina

Week 1: June 2 to 8, 2022



Heat Backs Off, Then Returns

A cold front crossing the state today will usher in a cooler air mass building in from the northwest. High temperatures Friday through Sunday should only reach the low to mid-80s. Warmer weather will return next week, with highs back into the 90s by Tuesday.

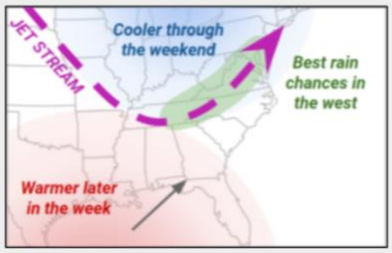
Showers Today, Alex Ahead?

The best statewide rain chance will come from showers and storms tonight and tomorrow, although totals are expected to be less than half an inch from the frontal passage. After that, the tropical system now in the Gulf could skirt our coastline on Monday.

Forecast Confidence

Most forecasts keep Tropical Storm Alex and its rain away from our coast, but conditions could shift as the storm develops.

Week 2: June 9 to 15, 2022



A Cooler Start, a Warm Ending

A jet stream trough building over the eastern US should drop our temperatures by next weekend, with daytime highs again limited to the 80s. Warmer and more humid air to the south will move in by early the next week, pushing highs toward the 90s once again.

Rain Reaches the Mountains

The storm track along the sagging jet stream should mean weather systems reaching the Appalachians, but not much farther east. As such, the best rain chances should come in western North Carolina, while the Coastal Plain could continue drying out.

Forecast Confidence

Models are in agreement about the cooler weekend pattern, but some show a weaker trough, which may limit how cool we get.

Weeks 3-4: June 16 to 29, 2022

Warmer Weather Sticks Around

After up-and-down temperatures early in the month, forecasts are in general agreement about a predominately warmer pattern settling across the Southeast US for the second half of June. Average high temperatures are in the upper 80s to near 90°F.

Mostly Dry, but Maybe Tropical?

High pressure overhead would suppress most afternoon thunderstorm activity, so late June may turn drier. However, a predicted above-normal hurricane season could also spring to life, opening the door for storms from the Gulf or Atlantic.

Forecast Confidence

At this point, there is much greater confidence in the temperature pattern than our potential late-month precipitation – or lack of it.

This infographic is based on forecast and outlook guidance from the National Weather Service. For more information, visit **www.weather.gov**.

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NORTH CAROLINA CLIMATE OFFICE

Supported by:

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

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