

Row Crop News

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In This Issue:

COTTON

- Got Bloom?
- Plant Growth Regulators
- Pigweed Reported

INSECTS

- Bollworms
- Plant Bugs
- Beneficials? Where?
- Beneficial or Pest?

UPCOMING EVENTS

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Got Blooms? Count NAWF

Thomas Barber (Extension Cotton Specialist)

Blooms are starting to show on the earlier-planted cotton. By the next week or week and a half, a large percentage of the crop should be blooming. In many areas, square retention at bloom remains fairly high. Once cotton begins to bloom, the number of nodes present above the first position white flower (NAWF) will give you a good indication of the health and “horsepower” of your crop. To take this measurement, count the number of nodes down from the terminal (terminal is 0) to the first white flower. When cotton first begins to bloom, it should be around 9 nodes above white flower. If the number of nodes is 7 or less, the cotton is under stress and actions should be taken to identify and if possible, alleviate the stress. If NAWF is greater than 10 at first bloom, it is an indicator that the vegetative growth may be out of control. This could be due to factors including low square retention, variety, moisture and fertility, along with other weather factors. The square set above the first bloom should at least be around the 80 percent range, but we would like to see 90 – 95 percent. As the season progresses, the white flower will catch up with the terminal until the crop is at cutout. Cutout in Arkansas is the stage when there are 5 NAWF. For questions about NAWF and plant health, contact your County Extension agent.

Plant Growth Regulators

Due to late crops this year, growth regulation will be extremely important. Caution should be used when making growth regulator applications, as the cotton may be stunted and premature cutout may result. Good moisture supply, high nitrogen and heat units generally result in vigorous growth conditions early in the season. So, when should a growth regulator be added? At the 8 to 10 internode stage, look at the fourth internode from the terminal. A rule of thumb is that if the fourth internode is at least three fingers long, a growth regulator application is likely needed. Another important factor to be mindful of when deciding to apply a growth regulator is fruit retention. If retention falls below 80 percent going into bloom, an application may be necessary. The primary factors used to select the proper growth regulator program include plant variety, crop history and the current crop and moisture conditions. For assistance in selecting a growth regulator program, contact your County Extension office.

More Pigweed Escapes Reported in County

We have had more reports of pigweeds escaping herbicide applications over the last couple of weeks. The photos below show a pigweed plant in a cotton field south of Pine Bluff that escaped a glyphosate plus Staple application (Figure 1). After the initial

escape, we applied a spot application of glyphosate. After four days, the plant appeared unaffected by the spot application (Figure 2).

Tank mixes may need to be used to effectively take out pigweed, especially where suspicions of glyphosate-resistant pigweed exist. When tank mixing, the second chemical (other than glyphosate) should be applied at a rate strong enough to take out the pigweed on its own. Also, pigweeds are more likely to escape herbicide applications if they are allowed to become larger plants. Try to catch them while they are still young (< 3 inches tall) for the best results.



Figure 1. Pigweed escaping glyphosate application.



Figure 2. Pigweed four days after spot spray of glyphosate.

Pigweed escapes are also being reported in soybean fields at this time. Removal by hand is being done in some fields where weeds don't die or where they don't even "check up" after a herbicide application.

Insects

Bollworms – *H. zea* moths peaked in the county around June 19. Since that time, numbers initially declined, then pretty much leveled off. The table below shows the moth trap counts over the last

month. With the peak occurring approximately two weeks ago, we are expecting another moth flight in the very near future. Be on the lookout for eggs when scouting. We will continue to monitor the moth traps and alert you to any major flights.

Bollworm (H. zea) moth counts, Jefferson County (Plunkett/Phillips)

Location	6/12	6/16	6/19	6/23	6/26	6/30	7/3	7/7
Bonds Brothers	103	180	445	278	256	81	41	61
Cottondale	9	96	93	121	39	22	101	102
Lambert	114	343	---	508	149	210	68	98
UAP	67	102	610	101	122	241	130	253
Ellis Place	356	500	1007	453	230	587	485	416
Donnie Pipkin	6	13	16	9	8	24	25	45

Plant bugs - Southeast Arkansas is still sustaining relatively light pressure from plant bugs, although numbers are building in several areas. Heaviest areas, I have heard thus far, have received 3 – 4 insecticide applications— this may be close to being on pace with last year's situation, but the problem doesn't seem nearly as geographically widespread as last year at this time in terms of plant bug numbers and loss of square retention. Earlier this week, some consultants and growers in Woodruff and Monroe Counties reported less than one spray on average for plant bugs thus far. I am still not catching nearly as many plant bugs in wild hosts as this time last year. That said, corn is starting to dry down, and nearby cotton should be monitored closely. We are still seeing primarily adults over nymphs, but that should change over the coming weeks. Remember to switch to the drop cloth for monitoring nymph numbers. *Scott Akin (Extension Entomologist)*

“Beneficials? Where?” - Comments have been made in previous newsletters recommending some of the more beneficial-friendly chemistries early in the season. When the term 'beneficials' comes to mind, most folks first think of natural enemies that are easily recognized— nabids, spiders, big-eyed bugs, etc. A field can, however, contain a significant number of natural enemies that are not easily seen or perhaps not even recognized as beneficials. Tachinid fly adults (see inset photo below), which resemble the common housefly, is a natural enemy of several insect pests including armyworms and loopers. Parasitic flies do not have

a sharp ovipositor (in contrast to parasitic wasps that do), so the fly must “stick” the egg to its host. The immature will soon hatch, bore into the host, and eventually kill it by developing inside it. I was able to get the picture below when visiting with James ‘Wish’ Patterson at Pickens & Co. last week near Dumas. The fields there were pretty clean overall, but I lucked up on finding this Tachinid-infested cabbage looper in some non-Bt refuge. Note the location of the egg, directly behind the head—this ovipositional behavior is an adaptation that keeps the host from turning around and removing the egg from its body. Also, note the discoloration on the first abdominal segment—a symptom suggesting that this looper may already be infested with another Tachinid that had hatched previously. The main take-home message here—there may be more natural enemies in your cotton than there appear to be at first glance. Stick to the aforementioned beneficial-friendly insecticides during early to mid-season if possible. *Scott Akin (Extension Entomologist)*

Beneficial or Pest? - In some instances, pests may result in beneficial responses. We were called out last week to view some leaf damage on a young cotton stand where we observed some yellow striped armyworms feeding on the leaves. Yellow striped armyworms seldom reach treatment levels, and usually have limited negative impact on the crop. However, they can be a food source for beneficial predator insects, allowing beneficial insect numbers to build prior to the onset of later season pests. This can result in greater predation of mid- to late-season pests. Caution should be used when making recommendations to control less-threatening insect pests and pests reported below threshold numbers as it is usually not cost effective and their presence may save you an insecticide application later in the year.

Upcoming events



- 7/15/08 – Soybean Scouting School
Rohwer Experiment Station
Registration at 8 a.m.
- 7/21/08 – Rice IPM Meeting
Wes McNulty Shop
Lunch at 11:30 a.m. - Meeting at Noon
- 7/24/08 – SEREC Rohwer Field Day
- 8/7/08 – Lon Mann Cotton Research Station
Field Day - Marianna
- 8/13/08 – Rice Research and Extension Center
Field Day - Stuttgart