

## **CRISP CO. AG NEWSLETTER – September 2011**

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### **Topics**

- *Peanut White Mold or “False White Mold”*
  - *When to Stop Cotton Irrigation*
  - *Defoliation Considerations*
    - *What Happened Here?*
    - *Upcoming Events*

### **Peanut White Mold or “False White Mold”?**

Can you tell the difference between Peanut White Mold and Phanerochaete (False White Mold)? Below are some great images taken by Rome Ethredge, County Agent in Seminole County.

*White Mold (sclerotium rolfsii)*



*Phanerochaete*, AKA “false white mold” (below) is a White Mold imposter. As it ages it will get a more orange color. If your still in doubt, scrape it away from the stem and see if there is any plant tissue damage underneath. If it is unscathed, then its probably *Phanerochaete* “false white mold”.





*Underground White Mold - Here's the one you don't want to find on digging day. The only way to scout for this is to randomly pull plants. Be on lookout for this especially during hot dry weather.*

## **When Should I Terminate Cotton Irrigation (Collins, Whitaker)**

Irrigation should generally be terminated when lower earlier-set bolls begin to open (generally when 10-15 percent of bolls are open, if soil moisture is sufficient at the time), especially now that most of our newer cotton varieties generally have a greater number bolls distributed towards the bottom of the plant, compared to that of DP 555 B. Irrigating once bolls begin to open increases the risk of boll rot, hard-lock, yield loss, and/or quality degradation. However, this recommendation could be adjusted depending on the situation. If the boll population developed relatively normally, i.e. there was a normal progression of boll development beginning at the bottom of the plant and progressed upward and outward, then this rule of thumb should hold true (Figure 2). In these situations, growers should examine the uppermost bolls that they intend to harvest to determine if additional irrigations may be necessary. If upper bolls are firm to the touch, and seed inside these bolls appear to be relatively mature (1. distinguishable brownish seed coat is evident, 2. evidence of developed cotyledons inside the seed, 3. little or no “jelly” substance inside seed, and 4. fibers contain little moisture and “string out” when pulled), then additional irrigation is most likely not necessary.

However, if a large proportion of bolls do not appear to be mature (easily dented when mashed between fingers, high moisture content in fiber, and little evidence of seed maturity), then additional irrigations may be required for these bolls to fully develop and mature, especially if the growers decides that the upper bolls may contribute more to final yield than the few lower bolls that have already opened. This may be common when the fruiting period is extended over several nodes and over a longer period of time than normal. A common situation in 2010 is also illustrated in Figure 2 where some fields reached a premature drought-induced cutout. In these situations, yield potential of the earlier set crop was relatively inferior. In general, the crop temporarily ceased its upward progression of boll development, and waited for rain. The August 2010 weather brought about more rains which revived terminal

growth and upper boll development prior to our general last-effective bloom date. This resulted in a distinct fruiting gap and a vast difference in age and maturity between the earlier set lower bolls and the later set upper bolls. In several situations, the grower decided that the upper boll population would contribute more towards final yield and therefore waited on these bolls to develop. Additional irrigations were also implemented to develop the upper boll population in some cases. In many cases, this decision was rewarding in 2010 due to the good fall weather experienced in 2010. However, when deciding that upper bolls (that bloomed prior to the last effective bloom date) may contribute more to final yield than lower opening bolls, when deciding to wait on upper bolls to mature, and/or when deciding that additional irrigations are required for developing upper bolls, the grower must be willing to sacrifice or forego the lower bolls (due to the potential for weathering losses) that are currently opening. This may or may not occur, however in situations where there is a distinct difference in maturity between upper and lower boll populations, a grower cannot expect to always harvest both, and must therefore decide which if the “two” crops they would like to harvest most. This decision is often more difficult when the lower and upper bolls may contribute equally to yield. Lastly, cool and wet fall conditions (similar to the fall of 2009) may not be favorable for waiting on upper bolls, which must also be taken into consideration.



*Figure 2. Comparison of plants exhibiting a normal progression of boll development beginning at the bottom of the plant and progressing upward and outward in a normal fashion (left) versus a crop exhibiting a fruiting gap between the lower and upper boll population likely due to a drought-induced cutout, followed by revived upward boll development once rains returned prior to the last effective bloom date (right) resulting in vast differences in age and maturity between the upper and lower boll populations.*

## Defoliation Considerations (Collins, Whitaker)

The majority of the early planted crop is rapidly approaching maturity and bottom bolls are beginning to open. Defoliation of early planted cotton is just around the corner (and underway in some places), and temperatures are likely to remain relatively high for the foreseeable future. Deciding on the best harvest aid program to use is often difficult to make, as even experienced agronomists do not always get it right. Considerations must be given to the goals of the defoliation program, whether it be mature leaf removal, juvenile growth removal, regrowth prevention, boll opening, or some combination thereof. Considerations should also be given to prices of harvest aids, yield potential of the crop, crop condition, weather at the time of application, and weather forecast for 10 to 14 days following application. Product selection for optimal harvest aid tank-mixes varies from situation to situation, and effectiveness of any program is strongly dependent on the prevailing environment and crop condition. Results of any program may be unpredictable and may vary as effectiveness is not always “as expected”.

A very general guide to cotton defoliation can be found in the Defoliation section of the 2011 Georgia Cotton Production Guide:

<http://commodities.caes.uga.edu/fieldcrops/cotton/2011cottonguide/2011CottonProductionGuide.pdf>

Some very general considerations for defoliation decisions are as follows:

1. Hormonal defoliant (thidiazuron, ethephon) perform better when used in tank-mixes during warmer weather than in cooler weather.
2. The risk of leaf-sticking or desiccation increases when some herbicidal defoliant are used when weather remains warm or hot, especially when high rates are used or when some adjuvants not specified by the defoliant label are added to the tank mixture. However, when cooler temperatures prevail, efficacy of hormonal defoliant is diminished and herbicidal defoliant often perform more effectively with less risk of desiccation.
3. To realize the full potential of a defoliant application, carrier volume should be NO LESS than 15 GPA. Complaints of ineffective defoliation during 2010 often resulted from application volumes of 8 to 10 GPA, regardless of the products used.
4. Utilizing a stand-alone harvest aid

### *What is to be expected from fields planted beyond the recommended planting window*

– This is very difficult to predict, and since most of the cotton that emerged beyond our recommended planting window (which ends on June 15th) are dryland acres, predictions are even more difficult to make, as irrigation often helps retain earlier-set bolls. Planting beyond our recommended planting window requires more things going right than wrong, and generally has erratic, inconsistent, and unpredictable results, thus being very risky and not recommended. Yield potential will likely be reduced to some degree depending on how late particular fields were actually planted, although the degree of reduced yield is likely going to be strongly correlated to the amount of rainfall that occurs which may enhance earliness in these fields. Management practices that improve early boll retention and development (water, proper insect management, and the use of PGRs if necessary) may improve the yield potential of cotton planted much later than recommended.

The best way to determine yield potential of cotton planted beyond the recommended planting window is to wait until our last effective bloom date (September 5th through the 15th, depending on fall weather and the date of first frost), and count harvestable bolls at that time. The general rule of thumb for determining yield potential is 10 to 12 normal-size bolls per foot of row (on 36-inch rows) equals a bale per acre. There is variability to this rule, due to differences in seed and boll size and gin turnout of the particular variety, the retention of these bolls (which will depend heavily on rainfall), and the rate of development and size of these bolls. Hopefully, we will experience fall conditions similar to that of 2010, when warm weather persisted without an early frost.

## What Happened Here?

This was one spot (collapsed vines) in a watermelon field. Look closely before you determine the cause.



*The Situation - Watermelons were starting to get some size; it had been hot and humid; vines have collapsed in this one spot in the field. Looks like possible powdery mildew at a distance. But this pigweed was also dead in the middle of the circle – this is a lightning strike, not powdery mildew.*



## Upcoming Events

- **GA Pecan Growers Association - Georgia Fall Field Day**

The Georgia Pecan Growers Association will be holding the annual Georgia Fall Field Day on Thursday, September 8, 2011. The event will be held at the UGA Conference Center – Tifton, GA. Registration will begin at 8:00 AM and the program will begin at 8:30 AM. The pecan farm tour will start about 9:00 with lunch being served at the UGA Tifton Campus Conference Center. The entire day is free to you and we encourage you to attend. Lots of great information will be presented during the day and a great BBQ lunch will be served. NO PRE REGISTRATION REQUIRED.

- **2011 Bacterial Fruit Blotch Summit**

October 25-26, 2011

UGA Tifton Campus Conference Center, Tifton, Georgia

Pre-registration is FREE, but REQUIRED by Tuesday, October 18 at 5 PM in order to ensure proper meal count.

Paper Registration Attached.

On Line Registration Below:

[https://tcccereg.caes.uga.edu/iebms/reg/reg\\_p1\\_form.aspx?ct=REG&EventID=6919&oc=10&coesessionid=ej5ej2fg7eikfd5fh4](https://tcccereg.caes.uga.edu/iebms/reg/reg_p1_form.aspx?ct=REG&EventID=6919&oc=10&coesessionid=ej5ej2fg7eikfd5fh4)

- **Peanut Maturity Clinic @ Crisp County Young Farmers Mtg.**

September 29 @ 7 PM. I will be checking peanuts for maturity via the peanut maturity board at this meeting.

Call Crisp County Young Farmer Advisor David West for more info 947-0370.

# **THANK YOU**

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