Santa Rosa County Ag. Sheet

P.O. Box 37, 5259 Booker Lane
Jay, FL 32565
850.675.6654, Fax 850.675.8590

August, 2008

Dates to Remember

Extension Farm Field Day……..……September 4, 2008
West Florida Research and Education Center 8:00 AM 12:00 PM (See flyer for more information)

Perennial Peanut Field Day……...…September 18, 2008
North Florida Research and Education Center, Marianna 9:00 AM (For more information call 675-3107)

In This Issue

Peanut Pod Blasting Changes

Due to budget cuts and loss of personnel, the pod blasting machine will no longer be operated at the Research Center (WFREC) in Allentown.
To address this, your County Extension offices in Santa Rosa, Okaloosa and Escambia will be conducting a pod blasting demonstration utilizing a pressure washer system for removing the outer hull. Using this process growers can blast peanuts almost anywhere quickly, then classify and rank the fields to harvest. Please see UGA Fact Sheet.

EACH OF THE DEMOS WILL BE FROM 12:00 noon – 1:00 pm.
Lunch will be provided by your area peanut buying points.

Escambia Co. Monday, Sept. 8th, at Rodney Helton's Barn. State Line Road, near Atmore
Santa Rosa Co. Tuesday, Sept. 9th, at Mickey Diamond's Barn. Hwy 197, Jay
Okaloosa Co. Wednesday, Sept. 10th, at Akers of Strawberries, Hwy 4, Baker

Bring your samples of fields that need to be blasted. For meal reservations, call your local Extension Office.

BEEF CATTLE MANAGEMENT CALENDAR

SEPTEMBER

.
•Cut hay
•Heavily graze pastures to be interplanted to cool season pastures.
•Check mineral feeder.
•Check for mole crickets, spittlebugs, and grassloopers, and treat if necessary.
•Chuck dust gags.
•Wean calves and cull cow herd if not already done. Remove open, unsound poor producing or over age cows.
•Train cowboys to observe normal and abnormal behavior and signs of disease.
•Be sure any replacement purchases are healthy and have been calfhood vaccinated for brucellosis.
•September or October is a good time to deworm the cow herd if internal parasites are a problem.
•When replacement heifers are weaned, give them required vaccinations and teach them to eat – then put them on a good nutrition program.
•Determine bull replacement needs, develop selection criteria, and start checking availability of quality animals.
•Review winter feed supply and feeding plans so that needed adjustments can be made before supplies tighten and prices rise.

OCTOBER

•Plant cool season legumes.
•Plant small grain pastures.
•Check mineral feeder.
•Check for external parasites, especially lice, and treat if needed.
•Check for spittlebugs and grassloopers and treat, if needed.
•Watch condition of cow herd; maintain adequate nutrition.
•Isolate any additions to the herd for 30 to 60 days and observe for signs of disease; retest for brucellosis and leptospirosis.
•Be sure you have adequate handling facilities, and that they are in good working order.

Stink Bugs Numbers Up in Cotton

Stink bug populations have generally been higher this year than in 2006 or 2007. Many fields will be susceptible to stink bug injury for several more weeks. Examine bolls approximately the diameter of a quarter for internal injury. Treatment for stinkbugs is generally warranted when 15 to 20 percent of bolls show internal damage. Phosphate insecticides such as Bidrin provide good control of brown stinkbugs. Both phosphates and pyrethroids provide control of southern green and green stinkbugs.

Terminating Cotton Insecticide Applications

The decision to terminate insect controls can be challenging in some fields but a few basic considerations will assist in that decision. When evaluating a field a grower must first identify the last boll population which will significantly contribute to yield. Once the last boll population is determined, boll development or approximate boll age should be estimated. Depending on the insect pest, bolls are "relatively safe" (never immune) from attack at varying stages of boll development.

The table below lists approximate boll age in days which bolls should be protected for selected insect pests. During early fall when temperatures moderate, plant development slows down due to cool temperatures and subsequent boll age values will increase. It is assumed that the field is relatively insect pest free when the decision to terminate insecticide application for a pest is made.

Insect Pest (s)	**Approx. Boll Age (days)**
Plant Bugs	15
Corn Earworm Tobacco Budworm	20 bolls fully sized
Stink Bugs	25
Fall Armyworm	bolls near maturity
Foliage Feeders soybean looper beet armyworm southern armyworm	bolls mature
Sucking Insects whiteflies aphids	Harvest (potential honeydew accumulation on lint)

Source: Dr. Philip Roberts,
Georgia Cotton, August 8, 2008

Restricted Use Pesticide Applicator and Dealer License Fees To Increase

We recently received the following information from FDACS. The new fee structure will become effective September 1, 2008.

"As of July 9, 2008, Rule 5E-9.028 has been amended to increase the amount charged for RUP Applicator and Dealer license fees to the maximum amount allowed by law. The new amounts are as follows:
Private Applicators will increase from $60.00 to $100.00 for 4 year licensure period
Public Applicators will increase from $60.00 to $100.00 for 4 year licensure period
Commercial Applicators will increase from $160.00 to $250.00 for 4 year licensure period
period."
RUP Dealer License fees will increase from $175.00 to $250.00 for 1 year licensure period."

Peanut Harvesting Guide

Plant Date	**120 days**	**130 days**	**135 days**
April 7	August 5	August 15	August 20
April 10	August 8	August 18	August 23
April 13	August 11	August 21	August 26
April 16	August 14	August 24	August 29
April 19	August 17	August 27	September 2
April 22	August 20	August 30	September 5
April 25	August 23	September 2	September 8
April 28	August 26	September 5	September 11
May 1	August 29	September 8	September 14
May 4	September 1	September 11	September 17
May 7	September 4	September 14	September 20
May 10	September 7	September 17	September 23
May 13	September 10	September 20	September 26
May 16	September 13	September 23	September 29
May 19	September 16	September 26	October 2
May 22	September 19	September 29	October 5
May 25	September 22	October 2	October 8
May 28	September 25	October 5	October 11
May 31	September 28	October 8	October 14
June 3	October 1	October 11	October 17
June 6	October 4	October 14	October 20
June 9	October 7	October 17	October 23
June 12	October 10	October 20	October 26
June 15	October 13	October 23	October 29
June 18	October 16	October 26	November 1
June 21	October 19	October 29	November 4

Source: University of Georgia
Plant Protection Pointer

Other Harvest Time Decisions and Factors to Consider

In addition to the cultivar affect on when to harvest there are other factors to consider as well. Unless vine conditions and weather dictate otherwise, it is to the producers' advantage in yield and grade to leave peanuts in the ground all the way to optimal maturity. Some producers have limitations on equipment and labor and may need to begin harvesting slightly earlier than the Hull-Scrape method would dictate. Be sure and check the peg stem strength and integrity to make avoid excess pod loss when inverting. If optimal maturity is still more than two weeks away and it is time for the next fungicide application, then it is critical that at least a chlorothalonil application be made to reduce the risk of excess leaf shed due to late season leaf spot infection.

In the event of an impending tropical storm or hurricane it is very important to access vine conditions. If the vines are healthy and can withstand several days beyond optimal harvest due to wet weather, it is better to leave the peanuts in the ground and dig after the passage of a tropical system. If the vines are very week and not able to withstand additional time in the field, especially after very wet weather, it is best to invert, or dig, ahead of the tropical system.

As we head later in the season, cooler temperatures will slow the maturation process and lengthen the time to harvest. However, it takes minimum temperatures in the lower 40's and 30's for two to three consecutive days to cause the maturation process to halt. If we have normal temperatures in October we should avoid the excessive cold temperatures that halt pod maturation. Producers should not panic and harvest too early if the minimum temperature reaches in the upper 40's and then warms back up.

If there is a risk of a frost the best thing to do is leave the peanuts in the ground. They are insulated in the ground. If peanuts are dug the afternoon before a heavy frost the following morning, there is a risk of freeze damage due to the high moisture content in the pods within 24 hours of inverting. If the field has been dug for two or more days, then the moisture content should be low enough that the kernel has separated from the inside of the hull and the risk of freeze damage should be minimal. Freeze damaged peanuts may be graded as a Seg 2 peanut, resulting in a substantial value reduction.

Source: University of Georgia
Plant Protection Pointer

Late Season White Mold Control

Environmental conditions during late August and early September have been nearly perfect across much of the peanut production area for the spread of white mold. White mold is fueled by a combination of warm soil temperatures and high humidity as exists in the full canopy of a peanut field. Rainfall and irrigation increase the window of time in which humidity and moisture are adequate for the spread of the white mold pathogen, *Sclerotium rolfsii*.

White mold begins when the small, BB-like sclerotia (mustard seed size) of the fungal pathogen germinate and infect the peanut plant. The sclerotia germinate when there is sufficient moisture and when there are significant "signals" that a peanut plan or other susceptible host is nearby. The "signals" are biochemicals given off by the plant such as might be present when defoliated leaves begin to breakdown. The sclerotia survive in the soil, but the fungus also requires sufficient oxygen to grow. Therefore, white mold progresses either on the soil surface or slightly below the soil surface.

Fungicides are typically used as one of the tactics to control white mold. (Others include crop rotation and use of more resistant varieties.) Soilborne fungicides, to include Abound, Artisan, Evito, Folicur (and other generic tebuconazole products), Headline, Moncut, and Provost, are used during a critical window (approximately 60-104 days after planting/emergence) to help protect the crop from white mold. Activity of the fungicides is enhanced if they can be washed from the foliage to the crown of the plant, either by rainfall of irrigation.

No fungicide that we use on peanuts, no matter how effective, can eliminate all white mold that occurs in the field. In fact, it has been estimated that an effective fungicide program is likely to control only about 70% of the white mold in the field. It is very difficult to eliminate the first infections of white mold that occur as sclerotia germinate and then infect a plant. Eliminating or minimizing the impact of initial infections is better achieved using good crop rotation (to reduce the inoculum level in the field) and use of more resistant varieties.

The true measure of an effective fungicide program is its ability to keep individual "hits" of white mold from spreading, or "burning", down the row of peanuts. No grower wants to see any white mold in a field; however some white mold is often inevitable. Individual hits of white mold should be watched carefully to insure that they do not spread. Fields where white mold has affected long runs of plants require immediate attention to minimize the impact of the damage.

Question 1: How do you determine that a field is "in trouble" with regards to white mold?

1. Insure that the problem you see in the field is "true" white mold and not "false" white mold (which looks a lot like the damaging kind of white mold, but does not hurt the crop), CBR (which is not easily controlled with fungicides), or some other disease such as Spotted Wilt or Diplodia collar rot.
2. Make an accurate assessment on how much "true" white mold is in the field. Are you seeing a few random hits? Too many random hits? Individual hits of white mold that have merged into extended runs of damage is clear evidence that something needs to be done.

Question 2: If I have a problem with white mold in my field, what should I do?

- Try to determine the cause of the problem. For example, did you wait too late to begin applying soilborne fungicides? Are you sure that your sprayer is properly calibrated and that you are applying the right fungicides at the right rate? Has there been sufficient rainfall or irrigation to move the fungicide to the crown of the plant, the target for white mold?
- Tighten the interval between fungicide applications. For example, if there you have been on a 14-day interval, perhaps you should shorten the interval to 10-12 days.
- Insure that fungicides are applied when rainfall of irrigation can help to wash the fungicide to the crown of the plant. For example, if your next application of a soilborne fungicide is scheduled for three days from now, but you are expecting a good chance of rain tomorrow, it may pay to spray today if possible.
- Where white mold is a problem in a field, growers may choose to increase the rate of fungicide that is applied, for example 8-10.7 fl oz/A of Provost, 18.5-24 fl oz/A of Abound, 12.0-15.0 fl oz/A of Headline, 26-32 fl oz/A of Artisan, or 1.07-1.5 lb/A Moncut.

- As a final option, the grower may choose to switch from one fungicide to another in hopes of using one that is more effective in the control of a serious white mold problem. It is difficult from the pool of data collected at the University of Georgia to differentiate the effectiveness of Abound, Folicur, Provost, Moncut, or Artisan with regards to control of white mold as all are very effective. Headline is effective when used as a component of soilborne program and we continue to evaluate Evito and generic tebuconazole products. In situations where a problem with white mold has developed, there is some evident that flutolanil, the active ingredient in Artisan and Moncut, may provide an important option for growers looking to incorporate an additional fungicide into their program.

Source: University of Georgia
Plant Protection Pointer

Disease Issues Linger as the Season Closes

Now that we have reached September, growers can begin to focus on hull scrapes, maturity clinics, and the preparation needed for the imminent harvest.

It is very common for growers to observe severe symptoms of plant decline in their final weeks of the season. Many of these symptoms are associated with disease; however other symptoms of decline can be easily caused by other factors in the field.

One of the most common questions that we receive has to do with yellow peanuts, especially in fields where the discoloration seems to occur "over night". Below are some of the possible reasons for yellowed peanuts.

1. **Tomato spotted wilt** , especially the "late season" manifestation, can turn large portions of a field a yellowish hue in severe cases. The diagnosis of spotted wilt can be difficult, as late season cases may not demonstrate the striking patterns on the foliage that are typically associated with the disease. In addition to yellowing and wilting, symptoms of late season tomato spotted wilt usually includes a necrotic, heavily damaged taproot. Additionally, pods may be stunted and the testa (seed coat) of affected nuts may be a darker pink than normal or display "water spots". **Note:** Although symptoms of late season may be widespread in a field, the distribution should be **random** , i.e. spotted wilt is not restricted to localized areas in the field.
2. **"Wet feet",** that is where peanuts are growing in very moist soil or in low-lying saturated areas, also often appears as yellow peanuts. Such yellowing can result from reduced functioning of *Rhizobium* bacteria, and hence reduced nitrogen fixation, in an anaerobic environment.
3. **Nutrient deficiencies** can also lead to yellowing. Manganese seems to be a typical cause of yellowing and manganese deficiency manifests itself with a fish-bone type of symptom where thin strips along the leaf veins remain greener than the surrounding leaf.
4. **"Cut-out"** is frequently referred to in cotton, but has a similar condition in peanut. Where a peanut crop has a sizeable yield awaiting harvest, the physiological stress of maintaining this load may manifest itself as yellowed peanuts. Likely, the peanut plant is diverting large nutritional resources to the pods to

the detriment of the foliage. Conversely, peanuts that appear to green and healthy at the end of the season may be an indication of less than record yields awaiting below the ground.

Along with questions regarding “yellow peanuts”, we are frequently asked to differentiate between white mold, Cylindrocladium black rot (CBR), and tomato spotted wilt at the end of the season. Each of these diseases can produce severe wilting in the peanut crop and thus can be easily confused.

1. **Tomato spotted wilt:** The key features to identifying spotted wilt can include a) the presence of diagnostic patterns, e.g. rings, spots, and oak-leaf patterns, on the foliage, b) a typically decayed taproot and root system, c) stunted pods that may appear a dark yellow-brown, and d) seed coats that are either darker pink than expected or that appear to have “water soaked” lesions.
2. **CBR** can be very difficult to distinguish from late season spotted wilt damage. Most producers here in Santa Rosa County are aware that a key diagnostic feature of CBR is the presence of small brick-red fruiting structures (perithecia) at the crown of the plants when environmental conditions are favorable. The problem is that it is often very difficult to find these structures, either because they have not yet formed or because the fruiting structures have withered under dry conditions. However, there are other key features that can help to identify CBR. First, when the root system and pods or a plant affected by CBR are examined, one will typically notice that the decayed root system and pods are BLACK! Although other diseases may produce death and decay, the striking black root and pods are primarily limited to CBR. Second, the seed of plants affected by CBR often show what is commonly referred to as “cinnamon speckles” on the seed coat. This is most easily seen are pods that are infected but not yet rotted. The small speckles scattered across the seed coat are in actuality the microsclerotia that allows the pathogen to survive between peanut or soybean crops. Finally, pods affected by the CBR pathogen will often possess a mat of brown-red fungal growth that can be seen when the pods are opened. **NOTE:** Unlike tomato spotted wilt, plants affected by CBR tend to be clustered in specific areas of a field.
3. **White mold** , caused by *Sclerotium rolfsii* , is usually first detected by the presence of wilted or flagging leaves in the field. When conditions are favorable, such as early in the morning or when humidity within the peanut canopy is high, one can easily find the feathery, white fungal growth in the crown of the plan and on the limbs. This growth is associated with lesions on the limbs. As the fungal growth ages, fungal “seeds” or sclerotia, begin to form. These sclerotia are slightly larger than a pinhead. They begin a soft, white aggregations of the fungal hyphae and then become dark brown and fairly hard. The presence of sclerotia is proof-positive that white mold is a factor in the field. However, the sclerotia can easily fall from the plant when it is removed for observation, so care should be taken to observe these structures before the plant is pulled or dug up. **NOTE:** Like CBR, white mold damage tends to be found clustered in a field. However, unlike CBR or tomato spotted wilt, the taproot of plants affected by white mold remains intact and fairly healthy
4. **Underground white mold** is the same disease as the white mold described above, however most of the symptoms occur on the pods just below the soil surface. In fact, wilt may not be observed at all with underground white mold and the plants may appear unusually healthy because the pods are being destroyed by the fungus and thus leaving more carbohydrates, etc, for the foliage. Pods and pegs affected by underground white mold may be covered by a mass of white fungal growth along with sclerotia. This disease moves fairly quickly; pods that have been affected eventually become brown and brittle. One good diagnostic tool for early detection of underground white mold is the presence of soil that clings or clumps on pods infected with the white mold pathogen.

Source: University of Georgia
Plant Protection Pointer

Cultivars and Maturity Range Reminders

We have two early maturing cultivars, ViruGard and AT 215. They typically mature about 10-14 days earlier than Georgia Green, which means they will reach optimal maturity under normal conditions at 120-125 days after planting. The seed supply of ViruGard was very low so there are not that many acres of it this year. AT 215 was just released for the southeast in 2008 so seed supply for that cultivar was also limited. Therefore, there is very few acres of early maturing cultivars planted in 2008.

A good device for remembering days after planting for any field planted in the month of May is the "123" rule. For any day in May it is 123 days until the same day in September. For example, if a producer planted a field on May 5 it will be 123 days after planting on September 5. The reason I bring this up is that if you have a producer that planted AT 215 or ViruGard in early May, they will be approaching optimal maturity on or about that same day of the month in September. Those fields will need to be checked for maturity at about 110-115 days after planting to make sure they are on target.

As a summary, the following cultivars are what we refer to as "medium" maturity: Georgia Green, Georgia-03L, AT 3085RO, AT 3081R, Carver, Tifguard, Georgia-06G, Georgia Greener, AP-3, AP-4, Georgia-07W, Florida-07. Our experience is that AP-3 and Florida-07 can be up to a week later in some cases. Carver can be a week earlier in some situations. The 2008 crop year is our first experience with Georgia-07W and Georgia Greener so we will appreciate any feedback on your experiences with those cultivars in regards to maturity range. We will be checking them closely as we try to confirm their maturity range.

The following cultivars are late maturing, 14-21 days later in maturity than the group listed above: C-99R, York, and Georgia-02C.

Source: University of Georgia
Plant Protection Pointer

Sincerely,

Mike Donahoe
County Director
Santa Rosa County

John D. Atkins
Extension Agent
Santa Rosa County

The University of Georgia
Cooperative Extension Service
College of Agricultural and Environmental Sciences

A Simple, Quick, Inexpensive Peanut Blaster

E. Jay Williams, Extension Engineer

Peanut pod blasters are used to strip away the outer pod layer to expose colors indicative of the stage of pod maturity. Blasters save considerable time, as well as improve the accuracy over hand-scraping for determining the pod maturity profile. A high pressure washer and an easily fabricated basket can serve as an inexpensive, quick, simple alternative to blasters that use glass beads, water, and compressed air.

The key to the pressure washer's effectiveness for blasting peanuts is the new rotating turbo nozzle. A turbo nozzle takes a 0-degree jet stream which has the highest stripping power of any nozzle, rotates it, and spreads it out over a wide area. It provides superior stripping action compared to a flat fan nozzle at a pressure low enough not to damage the pods. An electric pressure washer providing 1.5 gpm at 1300 psi is quite adequate. In higher capacity, engine-driven models, the pressure should be reduced to approximately a 1000 psi with the pressure regulator or by throttling down the engine.

A basket to hold the pods for blasting may be quickly made from 1/4 inch mesh hardware cloth. The model shows a basket 24 inches tall, which is the width of the roll (Figs. 1, 2) . The diameter of the basket is 9 1/4 inches, which is 1 inch smaller than the bottom of the bucket. Thus, 29 inches is required, plus 1 inch for overlap. Cut a circle the diameter needed. Roll the rectangular piece into a cylinder and secure with fine wire or plastic ties. Measure 4 inches from the bottom edge of the cylinder and mark around it with a dark marker. This will be the position of the bottom of the basket. Anchor the bottom of the basket at the mark. This will provide a sturdy basket and keep the pods inside when being blasted or agitated.

Place the pods in the basket. Place the basket in a 5-gallon bucket to prevent splashing. The bucket should be equipped with a drain to prevent water build-up. Hold the pressure washer nozzle approximately 12 inches away and blast while vigorously shaking the basket. Watch the pods carefully. Stop in approximately 30 seconds and remove the immatures (yellows) before they disintegrate. Place the more advanced pods (orange to black) back into the basket and blast until the entire outer pod layer has been removed. The entire process should be completed within three minutes or less.

The uniqueness of this method is its versatility. Growers can blast peanuts almost anywhere quickly, then classify and rank the fields to harvest. Plus, the pressure washer also can be used to clean the digger to prevent disease transmission between fields.

Figure 1. Bucket, basket, and high pressure washer with turbo nozzle.

Figure 2. Pods blasted in basket with turbo nozzle.

Miscellaneous Publication No. ENG 03-004 Engineering August, 2003

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, The University of Georgia College of Agriculture and the U. S. Department of Agriculture cooperating.

Gale A. Buchanan, Dean and Director