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PEANUT PROGRESS

PEANUT PRODUCTION UPDATE



*Todd Baughman
State Extension Peanut Specialist*

Having looked at several patches of peanuts over the past week we have peanut in several stages of crop development. The oldest peanut plants already have pods forming in the ground. Unfortunately, I have also looked at some peanut that obviously hurt from the 100 plus degree temperatures and currently either do not have any

pods set or in some case not a lot of well developed pegs either. High temperature, moisture stress, and low humidity can all have impact on the number of flowers produced and can reduce flower pollination. While this is not the most desirable situation the peanut plant can compensate by initiating a large flush of flowers when favorable environmental conditions return. The current situation is much improved over most of June. However, I still saw plants that were showing signs of drought stress this week. We need to take advantage of the current cooler temperatures and higher humidity by setting

as many pods as possible during this time frame. As mentioned last week peanut require between 1.5 and 2.0 inches of



water per week between early July and Mid-August. Therefore, it is critical that we maintain our irrigation and not get behind during this critical fruiting

GEARING -UP FOR POD ROT AND SCLEROTINIA BLIGHT



*Jason Woodward,
Extension Peanut Pathologist*

I have received several calls from across the region regarding Southern blight, caused by the soilborne fungus *Sclerotium rolfsii*.



Signs of the Southern blight fungus *Sclerotium rolfsii*

This fungus is favored by warm weather and can be characterized by coarse, white strands of mycelia that develop

in a fan pattern. Specialized over-wintering structures (sclerotia) will develop on dead tissues. Sclerotia have a distinct spherical shape and progress from a white to beige to brown color. All plant parts can be affected by *S. rolfsii*; however, infections this time of year will take place primarily in the crown area. Levels of disease that I have observed are fairly low and do not warrant treatment at this time.

PEANUT PRODUCTION UPDATE - Cont.

period of the growing season. Knowing that we will most likely run out of time at the end of the season we want to mature as many early pods as possible. Heat and water stress are two of the biggest culprits that limit pod set right now. While we cannot do anything about the temperatures we can do what our irrigation systems will allow in regards to water stress which can ultimately help the plant handle heat stress better. We can also make sure that plant does not stress for water during these times of cooler temperatures and higher humidity which are most conducive to flower formation, pollination, and ultimately pod set.

The current fruiting situation should also be considered as Jason mentions below in making fungicide applications. In many cases due to weather extremes during May and June some fields may not be as far along as others. Each field will need to be examined to time these applications appropriately. So while we stress being timely and being proactive on our management strategies in peanut. We also want to make sure that those practices are in conjunction with the development of the crop.

Finally, as we celebrate our countries adoption of the Declaration of Independence I leave you with this quote from George Washington:

"I know of no pursuit in which more real and important services can be rendered to any country than by improving its agriculture, its breed of useful animals, and other branches of a husbandman's cares."

Here's hoping you and your family have a wonderful, safe, and happy 4th.

GEARING -UP FOR POD ROT AND SCLEROTINIA BLIGHT— Cont.

With this in mind, it is time to consider preventative applications for other soilborne diseases such as pod rot and Sclerotinia blight. Two different fungi (*Rhizoctonia solani* and *Pythium* spp.) are the primary components of the pod rot complex. These fungi may occur alone, but are often found together. Positive disease identification is necessary to ensure maximum economic returns for chemical applications. Subtle differences between symptoms caused by the two can be observed. Pythi-

um infections may include a blackened decay with a greasy appearance; whereas, *Rhizoctonia* infections may have more of a dry-textured appear-

Preventative fungicide applications are generally administered 60 and 90 days after planting; however, early initial applications may result in the need for an additional application late in the season if conducive environmental conditions persist. Several factors must be considered when applying pod rot fungicides 1) growth stage, 2) pathogen pressure, 3) fungicide selection and 4) application method(s). Applications made before the for-



Symptoms of *Pythium* (left) and *Rhizoctonia* (right) pod rot

ance. Laboratory conformation is often required for a complete diagnosis.

mation of pegs and development of pods may limit the amount of product that is ultimately deposited in the pegging zone. Therefore, it is important to monitor peg development and delay applications accordingly. The identification of which pod rot pathogen you are dealing with will dictate fungicide selection. Pod rot fungicides with activity against *Rhizoctonia* consist primarily of Abound, Artisan and Convoy. Other fungicides such as Folicur (and other generic formulations of tebuconazole) and Provost are labeled for *Rhizoctonia* pod rot; however, their labels specify that applications are made in a 4-block regime (that is more congruent with practices in the Southeastern US). Additional fungicides are labeled for use against *Rhizoctonia*; however, efficacy data of these products is limited.

Fungicide options for *Pythium* are limited to Ridomil (several formulations including a liquid and a granule are available), and Abound (suppression only, at the maximum label rate of 24.5 fl oz/A). The activity of these products can be increased substantially when applied via chemigation; however, the banding of initial applications are often more cost effective. Broadcast applications result in fungicide treating bare ground which may be wasteful. Increasing carrier volumes (>20 gallons per acre) will improve deposition into the lower canopy, especially when applying liquid Ridomil

formulations (as that product binds very quickly to the leaf). Administering irrigation soon after fungicide applications will also help to redistribute fungicides deposited on the foliage and increase concentrations delivered to the pegging zone.



In addition to pod rot, consideration must be given to preventative applications for *Sclerotinia* blight. Infestations of *Sclerotinia minor*, the causal agent *Sclerotinia* blight, are most prevalent in parts of Gaines, Collingsworth, Hall and Erath Counties. The disease generally appears as rows begin to lap with the first symptoms being flagging of foliage in the upper portion of the plant. Examination of the lower canopy in the early morning will reveal white, fluffy mycelia. Stems of infected plants will have a bleached shredded appearance with small, black, angular-shaped sclerotia will forming

on and in them. *Sclerotinia* blight is best managed through an integrated approach. Adequate crop rotation (3-4 years) will help diminish densities of sclerotia in the soil. The use of partially resistant varieties (such as Tamrun OL07) is advised in fields with a history

of the disease. Applications of the fungicides Omega and/or Endura can help reduce losses associated with this disease. A list of fungicide registered for use in peanut can be found at the following link <http://peanut.tamu.edu/pdfs/productionguide07.pdf>. If you have any questions pertaining to peanut disease diagnosis or management options, please contact **Jason Woodward @ 806-632-0762**, or via e-mail jewoodward@ag.tamu.edu.

Please take the time to fill out this survey so that we can continue to assist you with your peanut production issues and help become aware of areas that we can improve upon.

Were on the Web:
<http://peanut.tamu.edu>

There is a link to a survey that we would like for each of you to fill out.

<http://peanut.tamu.edu/>

The Survey asks several questions to help us to recognize and improve on this newsletter for the 2010 season.

Please answer the 18 questions on the survey. At the top of the survey there is an option to **reset form** and/or **print form** for your records.

When you have completed the form, please click the **Submit by Email** button at the bottom of the survey.

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