



Peanut Production Update

**Todd Baughman—
State Peanut
Specialist**



Hopefully your farm has received timely rains and your weed control programs are working as expected. For the most part peanut look outstanding across the state. We have seen a few issues with herbicide injury and peanut plants were showing the effects of 100 plus temperatures, but as whole the crop looks really good. In many cases we were already seeing 3-4 pegs starting to enter the soil and the plants did not seem to be hampered by early weather concerns. The crop may in fact be a little ahead of schedule. The two keys to production now will be water and disease management. We have entered or are entering the highest water demand period for peanuts

(blooming, pegging, and pod fill). This period will last from now through early October. From an irrigation standpoint we must try to stay on top of water demands of the peanut plant as much as possible. Total seasonal water requirements are 24 to 28 inches for high yielding peanut. High temperature, moisture stress, and low humidity can all negatively impact flowering. Environmental stress can delay or limit flower formation and under severe stress stop



flower formation completely. Ultimately this can lead to delayed pod set and possible yield reductions. Fortunately, the peanut plant can compensate to some extent by initiating a rapid flush of flowers when more favorable conditions occur. The soil must be kept moist to allow pegs to enter the soil, take up nutrients, and properly develop. Peanut currently will require be-

tween 1.5 and 2.0 inches of water (with water use demand being as high as 0.4 inches per day). This must come from stored water, rainfall, or irrigation. Unfortunately, stored water and rainfall for many parts of the state is less than desired. Therefore, much of the peanut plant requirements will have to be provided through irrigation. Even in areas that have good deep moisture if we get behind with our irrigation schedule it will be almost impossible without some

significant help from mother nature to catch back up. If we get behind in our irrigation schedule now we will most likely hamper yields. I cannot stress again how important maintaining irrigation levels is right now to meet water use demand. Not only will it help us maintain high yields, but it will also help us in setting an early crop, which will also improve grades and overall peanut quality. If you have any questions about irrigation scheduling, plant development, or other production questions please contact me @ **940.552.9941 ext. 233** or **tbaughma@ag.tamu.edu**

Peanut Disease Update

Jason Woodward—



**Extension
Peanut
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Most peanut fields have been planted for 60-75 days, and are beginning to set pegs; therefore, it is important to consider mid-season disease management. Overall, things have been quiet with regard to peanut diseases; however, I have received several samples from producers and/or consultants over the past few weeks. *Sclerotium rolfsii* was isolated from plants exhibiting symptoms of Southern blight. Disease incidence in the field was relatively low (<1%), and did not warrant treatment. Initial symptoms of Southern blight consist of wilting or yellowing of lateral branches resulting from infection of the plant at the soil surface. Lesions are initially light brown, becoming darker brown with age. Feathery sheaths of fungal growth

(mycelium) can be observed as the disease develops. Spherical-shaped sclerotia are produced abundantly on infected stems and the soil surface. These structures are initially white, but turn dark brown as they mature. Southern blight is capable of causing severe damage to pegs and pods if hot, moist environmental conditions are experienced, thus, it is important to monitor development of this disease when scouting for pod rot. Southern blight is typically controlled with fungicide applications that target *Rhizoctonia* pod rot; however, additional applications may be warranted.

The pod rot complex is comprised of several different fungi; however, *Rhizoctonia solani*, *Pythium myriotylum*, and other *Pythium* spp. are the principle causal agents. Field diagnosis of peanut pod rot is difficult, as advanced stages of diseased pods result in complete decay. Confirmation in the laboratory is often required in diagnosing pod

rot. There are no apparent symptoms associated with pod rot. Severely infected plants may actually appear darker green late in the season. This is due to the lack of energy and nutrients being redistributed to fill pods. *Rhizoctonia* can be characterized by a dry-rot, where the ridges of the pod are exposed. Kernels within pods infected with *R. solani* may exhibit a brown to cream colored mold. *Pythium* has more of a greasy, wet appearance and rotted pods are dark black. These textbook examples apply when the pathogens are causing disease independently; however, both pathogens are often present within the field in West Texas.

Another disease capable of causing devastating losses is Sclerotinia blight (caused by *Sclerotinia minor*). This disease is restricted to Western Gaines Co. on the High Plains, Collingsworth and Hall counties in the Rolling Plains; however, several counties in Central Texas (i.e. Erath, Comanche, etc.) are



Signs of the Southern blight fungus *Sclerotium rolfsii*



Signs of the Sclerotinia blight fungus *Sclerotinia minor*

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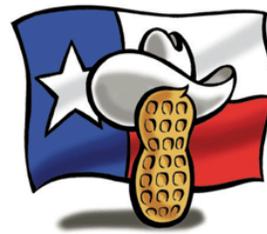
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Peanut Disease Update - Cont.

infested with *S. minor*. While Sclerotinia blight can be found in portions of South Texas, distribution of the pathogen is limited. Symptoms of Sclerotinia blight are similar to those of Southern blight. Subtle differences can be used to differentiate the two. For example, lesions of Sclerotinia blight are straw colored and have a bleached and/or shredded appearance. The mycelium of *S. minor* has an aerial, fluffy, or cottony appearance. *S.*

minor sclerotia are black in color, and have an angular shape. Proper disease diagnosis is required in for fungicide selection. Numerous fungicides are registered for use in peanut; however, there are no silver bullets when it comes to managing diseases. For a list of fungicide registered for use in peanut please see the Disease Management section of the Texas Peanut Production Guide at the following link

<http://peanut.tamu.edu/pdfs/productionguide07.pdf>. In addition, results from fungicide efficacy trials conducted in 2008 can be found at <http://peanut.tamu.edu/pdfs/2008RESEARCHRESULTS.pdf>. If you have any questions pertaining to peanut disease diagnosis or management options, contact Jason Woodward @ 806-632-0762, or via e-mail jewoodward@ag.tamu.edu



Symptoms of Pythium (left) and Rhizoctonia (center) pod rot, and kernels damaged by pod rot (right)