TEXAS AGRILIFE EXTENSION SERVICE

Peanut Progress

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SPECIAL POINTS OF INTEREST:

- Current Peanut Situation & Production Update
- Early Season Peanut Disease on the Decline

Current Peanut Situation & Production Update

Todd Baughman – Extension Peanut Agronomist

There has been some concern about peanut health and stands with the recent wind and hail damage that has occurred in various regions. Unlike cotton peanut can withstand a tremendous amount of damage and still survive and produce acceptable yields. If questioning whether to replant peanuts after storm damage often if you cannot decide what to do you are better off staying with the original planting. Late planting of peanut just like cotton will often result in a yield reduction compared to earlier plantings. We have conducted research to evaluate simulated hail damage to runner peanut Table 1. Peanut were defoliated at beginning bloom and pod at three levels of defoliation 33%, 66%, and 99%. Averaged over three years yields were not affected by simulated hail damage at the beginning bloom stage. Yields were reduced with all three defolia-

Table 1. The effects of growth stage and defoliation level on peanut yield and grade 2003, 2004, and 2005.

Treatment	Yield	Grade
	lb/A	%
Begging Bloom – 33% defoliation	5120	73
Begging Bloom – 66% defoliation	4790	74
Begging Bloom – 99% defoliation	4760	73
Begging Pod – 33% defoliation	4130	74
Begging Pod – 66% defoliation	4030	73
Begging Pod – 99% defoliation	2400	70
Untreated	5180	75
LSD (P=0.05)	500	2

Simulated hail damage in peanut

Early Season Peanut Disease on the Decline

Jason Woodward - Extension Plant Pathologist

We appear to be off to a good start from a disease standpoint. As of yet I have had only a few reports of seedling disease, with the majority of cases coming from early plantings. The weather conditions being experienced throughout much of the state should slow the development of most of our usual early season peanut diseases, such as seedling disease. However, it is important to maintain an active scouting program, especially in fields with

Peanut Situation & Production Update - Cont.

tion levels at the beginning pod stage. However, only at the 99% defoliation level and beginning pod stage were yields reduced below 4000 lbs/A.

Peanut stand of 1 plant per row foot

When we look at individual years in only one out of three years was yields below 4000 lbs/A at the beginning bloom stage. Yields were still 3500 lbs/A in this instance when peanuts were 99% defoliated. While our simulated study may not be the same as actual hail, as discussed even in the case of severe physical damage peanut will often survive and yield quite well.

Along with this hail damage there may also be concerns about peanut stands. Recent studies have indicated that very low runner peanut plant populations can yield quite well. In two years of research with plant stands as low as one per foot yields were similar to 5 plants per foot. Only when plant stands were below this did yield reductions occur. As in all cases uniform thin stands will perform better than stands that are thick in one area with large skips in other parts. As mentioned earlier when in doubt it is often best to keep the original stand.

If you have any production questions contact Todd Baughman @ 940.552.9941x233.

"When in doub it is often best to keep the original stand "

Early Season Peanut Disease on the Decline - Cont.

a history of disease. While warm dry conditions adversely affect most of the pathogens that cause peanut diseases some diseases, such as Aspergillus crown rot (caused by *Aspergillus niger*), can actually be more severe. *Aspergillus niger* can be found in most field soils and is a common contaminant of peanut seed; however, *A. niger* does not produce aflatoxin contamination. Crown rot symptoms range from seed rot or pre-emergence damping-off to a sudden wilting of young seedlings. Diseased tissues will appear sunken and have a dark brown color. In addition, black masses of fungal spores may cover decayed tissues. Most of the damage occurring from crown rot will occur within the first four to six weeks after panting. Practices that can be used to minimize Aspergillus crown rot consist of using high quality, fungicide treated seed, minimizing the amount of soil thrown on seedlings during cultivation, and maintaining uniform soil moisture. Additional disease problems can still arise throughout the season in fields receiving supplemental irrigation. Southern blight (caused by *Sclerotium rolfsii*), which typically infects mid-season can be more severe on subterranean plant parts (i.e. roots, pegs and pods) under high temperatures and fluc-

Aspergillis in peanut

Early Season Peanut Disease on the Decline - Continued

tuating soil moisture. As the disease develops underground, management becomes more difficult. Currently, Southern blight is controlled with applications of labeled fungicides approximately 60 to 75 days after planting. Additional information regarding the control of Southern stem rot and other mid - to late-season diseases will be forthcoming in subsequent issues. If you have any questions regarding peanut diseases contact me at 806-746-4053 or jewoodward@ag.tamu.edu.

Recent evaluations of research plots in Western Gaines County have revealed the onset of Sclerotinia blight; therefore, it is time to consider scheduling fungicide applications. In addition, producers also need to be mindful of initial fungicide applications needed to control pod rot. When developing fungicide programs for control of the aforementioned diseases it is important to properly diagnose which disease(s) you are dealing with. A statement that is easier said than done. Several diseases mimic Sclerotinia blight, including Botrytis blight, and Southern stem rot. Initial symptoms of Sclerotinia blight include a yellowing and/or wilting of lateral branches. A closer examination within the plant canopy will reveal a cottony, white, moldy growth; which is most commonly observed early in the morning. As the disease progresses, infected stems have a bleached appearance and become shredded. Small, black, irregular-shaped structures (sclerotia), which serve as overwintering structures, may be produced on or within infected tissues. Currently, there are only two fungicides that are labeled for control of Sclerotinia blight in peanut. Omega 500F is labeled 1.0 to 1.5 pint per acre, whereas, the maximum labeled rate for Endura is 10 fl oz per acre.

As is the case with Sclerotinia blight, an accurate identification of the pathogen causing pod rot is required in order to choose the proper fungicides. There are two pathogens, *Rhizoctonia solani* and *Pythium* spp., responsible for the majority of pod rot problems in the region. Infected pods are quite similar in appearance, making it very difficult to distinguish between the two. Furthermore, the two may also be found infecting pods simultaneously. Infected pods initially exhibit light brown lesions, which turn dark brown to black as the disease progresses. A subtle difference between the two is that pods infected with *Pythium* typically have more of a water soaked appearance, whereas, pods infected with Rhizoctonia have more of a dry rot appearance. Fungicides labeled for control of *Rhizoctonia solani* and *Pythium* spp. is limited. Abound 2.08F at the maximum rate (24.6 fl oz per acre) is labeled for control of Rhizoctonia pod rot, but only suppression of Pythium pod rot. Various formulations of the fungicide Ridomil are available for control of Pythium pod rot, but these products have little to no activity on *Rhizoctonia solani*.

If you have any questions regarding peanut pod rot please contact: Jason Woodward at the Lubbock Center 806.746.6101

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