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PEANUT PROGRESS

In this issue

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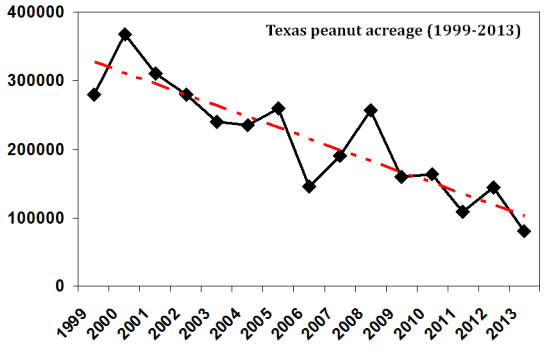
Acreage report and crop condition

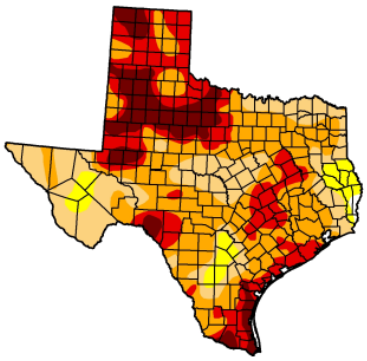
The June 28 USDA-NASS acreage report has shed some light on projected peanut acres. Overall, peanut acres are down 541,000 across the country compared to 2012. That equals about a 33% reduction.

Estimated U.S. planted acres for 2012 & 2013 (USDA-NASS Report, June 28)

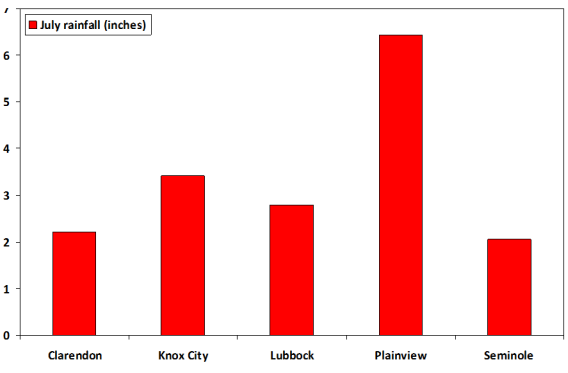
	Planted acres (x1,000)	
State	**2012**	**2013**
Alabama	220.0	130.0
Florida	210.0	150.0
Georgia	735.0	510.0
Mississippi	52.0	24.0
New Mexico	10.0	6.0
North Carolina	107.0	80.0
Oklahoma	24.0	18.0
South Carolina	110.0	85.0
Texas	150.0	80.0
Virginia	20.0	14.0
Total	**1,638.0**	**1,097.0**

Despite a slight uptick last year, Texas acres continue to decline. A trend that began following the 2000 growing season.





Some widespread rain has fallen over the High and Rolling Plains this past week. Accumulations in excess of 6 inches have been recorded in some areas. This rainfall has allowed most producers to give irrigation systems a well needed break. Furthermore, the moderation of temperatures and wind allowed the majority of the rain that fell to soak into to the ground. What has fallen will help supplement soil moisture needed to fill developing pods; however, we do not want to wait to long before resuming irrigation. Rainfall in central and south Texas has been more sporadic. **JW**

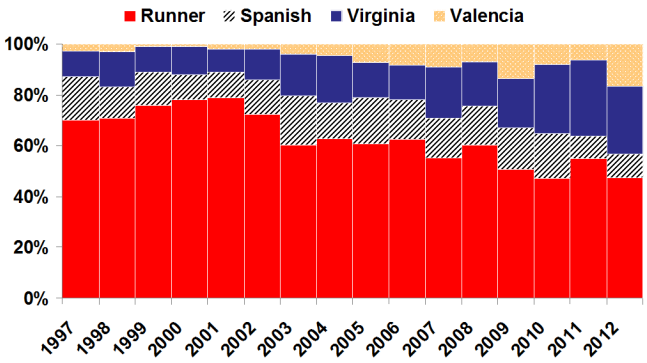


"The recent rainfall received has allowed producers to give irrigation systems a well needed break."

TEXAS A&M AGRILIFE EXTENSION

Variety trends and performance

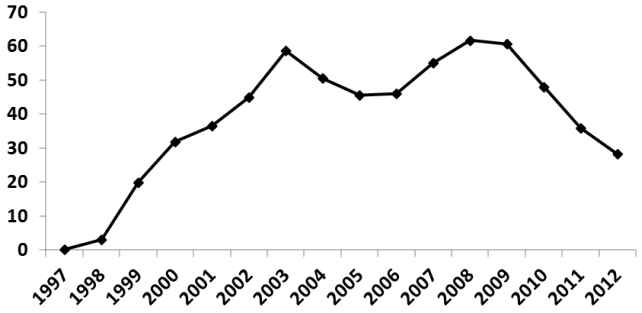
In addition to a reduction in overall acres, there has been a shift in the dynamics of peanut market-types and varieties grown within the state. Below are a few figures that were prepared for a presentation at or the American Peanut Research and Education Society (APRES) earlier this month. These figures illustrate the proportion of runner, spanish, valencia, and virginia- types grown the past 16 years (data provided by Dr. Mark Black, Texas AgriLife Extension, Uvalde). As you can see in the stacked bar graph to the left, runner-types have been planted on a large portion of acres (approaching 80% of the acres in 1999-2001); however, the proportion of virginia acres as steadily increased over the past several years. Comprising 25-30% of the acres from 2010-2012, with a similar trend projected for 2013. Likewise, there have been considerably more acres of valencias planted the past eight years. Whereas, spanish acreage has remained between 10 and 20% over this same time. Several factors have contributed to a reduction in runner acres in Texas. The first being lower yield potential due to the severe drought conditions experienced throughout the state. In contrast, high runner yields have been achieved the past few years in the southeast, which has resulted in lower contract prices; whereas, premiums are generally offered for other market-types.

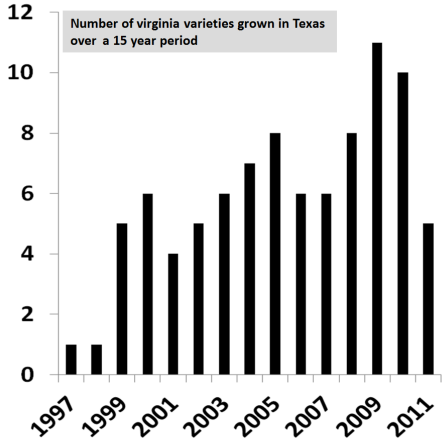


"Several factors have contributed to a reduction in runner acres in Texas."

In addition to changes in market-types grown across the state, new varieties with improved yield, grade and disease characteristics continue to be developed. The line graph to the right depicts the percent market share of Flavor Runner 458 from its release in 1997 through 2012. Maintaining 35-60% of the market from 2001 to 2011, it has long been considered the commercial standard runner variety. The availability of other varieties, such as ***ACI-149***, ***Florida 07***, ***Georgia 09-B***, ***McCloud***, ***Red River Runner***, ***Tamrun OL07*** and ***Tamrun OL11*** over the past few years has lead to a reduction in acres planted to Flavor Runner 458. The bar graph to the right shows the increase in the number of virginia varieties grown (mostly in the High Plains) over the past 15 years. With ***NC-7*** being the sole variety grown in 1997 and 1998, a sharp increase in varieties followed reaching 11 grown in 2009. Standard varieties consisting of ***AT 07-V***, ***Florida Fancy***, ***Gregory*** and ***Jupiter*** have been grown regularly. In recent years, newer varieties such as ***AU-1101***, ***Bailey***, ***Brantley***, ***Champs***, ***Perry***, and ***Suggs*** have performed well in replicated variety trials. Fewer varieties of spanish and valencia- types are available. **JW**

Percent market share of Flavor Runner 458 (1997-2012)





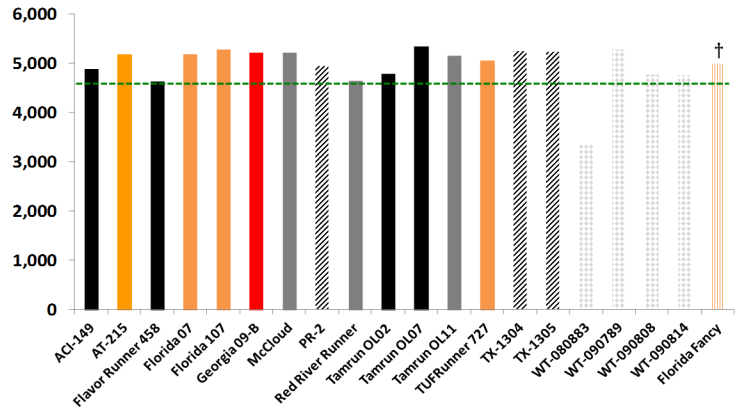
"In addition to changes in market-types grown across the state, new varieties with improved yield, grade and disease characteristics continue to be developed."

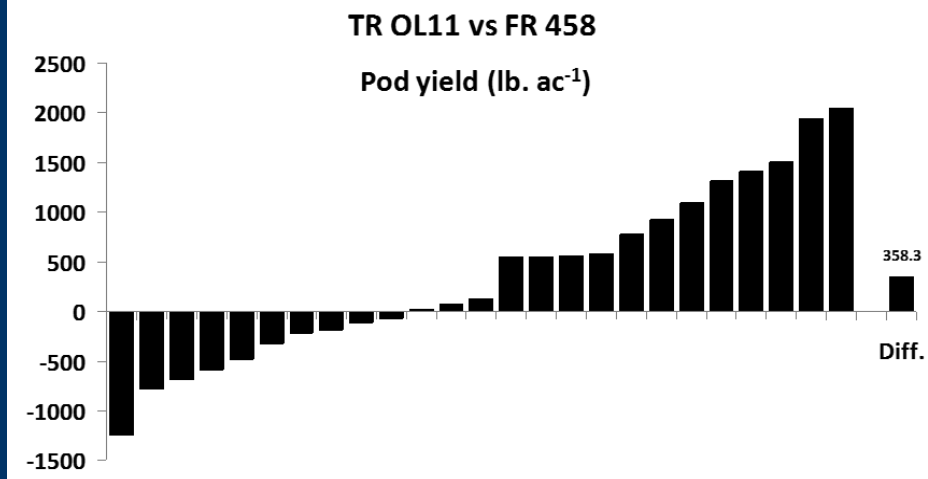
"Yields of Tamrun OL11 where higher than Flavor Runner 458 in approximately 70% of the 25 trials conducted over the past 4 years."

Variety trends and performance (*cont.*)

A total of six runner variety trials were conducted in the High Plains in 2012. Overall, 19 varieties or advanced breeding lines (plus one Virginia entry (Florida Fancy)) were evaluated. When averaged across all locations pod yields for Flavor Runner 458 were 4633 lb ac^{-1}, which is denoted by the dashed, green, horizontal line in the figure to the right. Yields of all other entries (except breeding line WT-080883) were equivalent to or greater than Flavor Runner 458. Yields of all commercially available varieties yield on average 438 lb ac^{-1} more; whereas, yields for Florida Fancy were 351 lb ac^{-1} acre higher. Yields of the newest Texas A&M AgriLife Research Peanut Breeding release (Tamrun OL11) where higher than Flavor Runner 458 in approximately 70% of the 25 trials conducted over the past 4 years, equating to a 358 lb ac^{-1} yield advantage over Flavor Runner 458.

Means of runner pod yields from five trials conducted in 2012



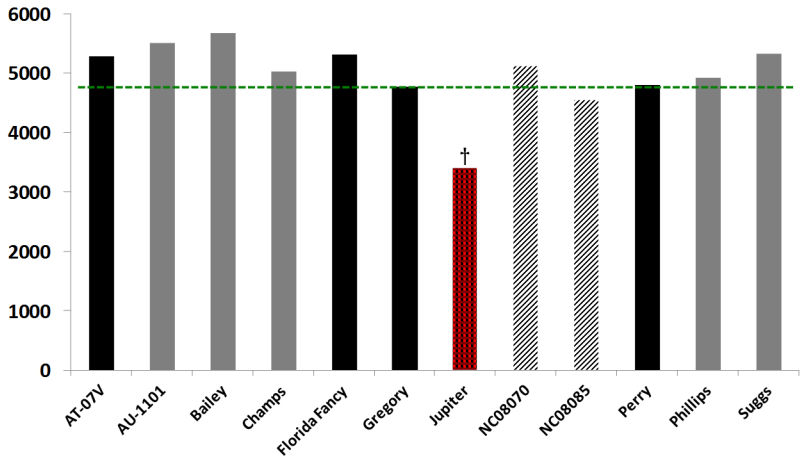


Comparison of Tamrun OL11 and Flavor Runner 458 in 25 trials (2009-2012)

Similarly, all of the virginia entries (except Jupiter and one of the two advanced breeding lines) yielded equal to or greater than the commercial standard Gregory. Yields for AT-07V, AU-1101, Bailey, Champs, Florida Fancy and Suggs were 517, 745, 896, 249, 542 and 557 lb ac^{-1} higher than Gregory, respectively. Additional studies are being conducted to further compare the aforementioned runner and virginia entries under varying environmental conditions. Likewise increased interest in spanish and valencia- types has lead to more testing with those varieties. If you have any questions regarding the different market types, or variety performance, contact Jason Woodward at 806-632-0762 or jewoodward@tamu.edu. **JW**

"Increased interest in spanish and valencia- types has lead to more testing with those varieties. "

Means of virginia pod yields from five trials conducted in 2012



Mid- to late-season weed control options

Herbicides applied preplant and at planting have likely done what they can and new weed flushes are starting to emerge. Herbicides applied early-postemergence that do not have soil activity may give way to new weed flushes as well. In other words, good early season weed control may need some attention because previously applied herbicides have dissipated over time. So what options do we have at this time of year?

There has been some good discussion about herbicides applied to peanuts in bloom to early peg and the potential for increased injury. We have looked at this timing issue with several herbicides, including Cadre, Pursuit, Ultra Blazer, 2,4-DB, and Cobra and have not seen a problem when these herbicides are applied at that time during the growing season. Each herbicide has a preharvest interval (PHI) restriction, which is generally between 30 and 90 days before harvest.

Cobra may be used at 12.5 ounces per acre, and up to two applications may be made per season. Cobra has a 45 day PHI, which means that applications must not be made within this time period. Ultra Blazer may be used at 1 to 1.5 pints per acre and up to 2 pints may be used per season. Ultra Blazer has a 75 day PHI. Basagran may be used at 1 to 2 pints per acre through pegging and up to 4 pints per acre per season. No PHI is listed on the Basagran label; however, peanut hay and forage may be fed to livestock, but treated fields can not be grazed for at least 50 days after treatment. Storm may be applied at 1.5 pints per acre and up to 3 pints per acre per season. Storm has a 75 day PHI. None of these herbicides are active through the soil (i.e. generally considered contact herbicides), so new weed flushes after application may occur.

Basagran has activity on cocklebur, wild sunflowers, and yellow nutsedge. Ultra Blazer and Cobra are effective at controlling Palmer amaranth, annual morningglory, smellmelon and other small sized annual broadleaf weeds. None of these herbicides provide residual weed control. Storm, a prepackaged mixture of Basagran and Blazer, may be use to control a wide range of small and actively growing annual broadleaf weeds. All of these herbicides need a spray additive to improve herbicidal activity with a crop oil concentrate (COC) being the most widely recommended.

If Pursuit or Cadre were used at their full rates (1.44 ounces of the DG formulation or 4 ounces of the liquid), a sequential application should not be applied. If a reduced rate (0.72 ounces of the DG formulation or 2 ounces of the liquid) was used at the first application, then a sequential reduced rate application may be applied. It is not recommended to use the full rate of Pursuit followed by the full rate of Cadre or the full rate of Cadre followed by the full rate of Pursuit because of rotation crop concerns, weed resistance management, and overall crop response.

Cadre is probably one of the most active herbicide used postemergence (POST) in peanut. Cadre has good activity on many broadleaf and grassy weeds, and nutsedge. There is an 18-month rotational restriction following application before cotton may be planted, which limits the use of this herbicide in west Texas. Pursuit has good activity on a broad spectrum of weeds, but has the same rotational restriction as Cadre. The use of nitrogen fertilizer is recommended with Pursuit applications. Development of weeds resistant to Cadre and Pursuit has become a bigger concern over the past few years. Weeds not control by these herbicides does not mean you have resistant weeds, but susceptible weeds that appear more and more tolerant to these herbicides may be a sign that weed resistance may be present.

Peter Dotray,
Weed Scientist

and

James Grichar,
Research Scientist

"Herbicides applied preplant and at planting have likely done what they can and new weed flushes are starting to emerge."

Mid- to late-season weed control options cont.

2,4-DB 200 (Butyrac 200) may be used in peanut at a rate of 0.8 to 1.6 pints per acre, whereas 2,4-DB 175 (Butyrac 175) may be used at 0.9 to 1.8 pints per acre. These rates are equivalent to 0.2 to 0.4 pounds of active 2,4-DB per acre. Applications should be made between 2 to 12 weeks after planting. Do not apply to peanuts suffering from lack of moisture. The second application should not be made later than the late bloom stage of peanut and do not apply within 30 days of harvest.

2,4-DB has good activity on several annual broadleaf weeds including morningglory and sunflower. 2,4-DB plus a COC will cause typical phenoxy-type injury and the peanut plants to 'lay down' for 24 to 48 hours, but the plants recover quickly and research suggests this injury will not result in yield losses at the end of the season. 2,4-DB may be tank mixed with other herbicides to broaden the spectrum of weeds controlled. The dominant issue with using 2,4-DB in west Texas is cotton injury. Adjacent cotton fields are exceedingly susceptible to 2,4-DB drift. Tank contamination should also be an important concern when the same equipment is used in both peanut and cotton production.

"In general, a six-hour rain free period is sufficient for most herbicides, although some formulations have decreased this time to approximately one hour."

In general, a six-hour rain free period is sufficient for most herbicides, although some formulations have decreased this time to approximately one hour. Many POST herbicides require a spray additive to ensure maximum herbicide performance. In west Texas, a COC is recommended over non-ionic surfactants (NIS) for many herbicides, while in south Texas, a NIS has caused less plant phytotoxicity than a COC with herbicides such as Blazer and Cobra. For other herbicides such as Pursuit and Cadre the choice is not as critical; however, the addition of liquid nitrogen fertilizers or dry spray grade ammonium sulfate may improve herbicide performance. Mixing order and compatibility are an issue for many herbicides; therefore, always carefully read and follow label instructions for maximum herbicide performance. Thorough coverage can be accomplished by applying herbicides to smaller weeds, increasing the carrier volume and/or spray pressure, proper boom height, and accurately applying the herbicide to weeds growing beneath the crop canopy (through various nozzle arrangements and spray equipment).

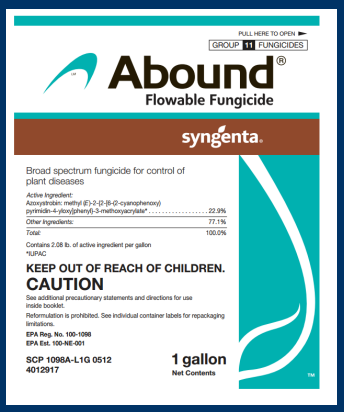
Dual Magnum and Outlook are preemergence herbicides that may also be used POST in peanut to decrease the potential of crop injury following application. These herbicides have good activity on annual grasses and small-seeded broadleaf weeds (namely Palmer amaranth), but must be applied prior to weed emergence or emerged weeds must be controlled by tank-mixed with another POST herbicide. Activity on yellow nutsedge has been observed when these herbicides are applied POST to peanut, but activation shortly after herbicide application by rainfall or irrigation is necessary for effective control. Also, yellow nutsedge must be no more than 8 to 10 inches tall for this treatment to be effective. Poast Plus (40 day PHI), Select Max (40 day PHI), and Fusilade DX (30 day PHI) are labeled for use in peanuts for POST control of annual and perennial grasses and usually provide effective control when applied to annual grasses and perennial grasses that are not stressed. Generally, Select Max and Fusilade control bermudagrass more effectively than Poast Plus but repeat applications may still be necessary for effective control. For more information on weed control options contact Peter Dotray (806-746-6101) or James Grichar (WGrichar@ag.tamu.edu). **PD** and **JG**

Peanut Disease Update

While the rainfall and cooler temperatures discussed in the Current Peanut Situation are greatly welcome, these same conditions are conducive for the development of several peanut diseases. With the continued formation of pegs and development of pods in much of the peanut crop, it is time to consider fungicide options for applications for soilborne diseases. Many producers have been or will be making fungicide applications to protect the crop from the pod rot complex. Two different fungi (*Rhizoctonia solani* and *Pythium* spp.) are capable of inciting pod rot. 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. *Pythium* infections may include blackened decay with a greasy appearance; whereas, *Rhizoctonia* infections may have more of a dry-textured appearance. Laboratory confirmation is often required for a complete diagnosis. Preventative fungicide applications are generally administered 60 to 75 days after planting with subsequent applications made 30 days later; 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.) Pathogen pressure-** proper identification of which pod rot pathogen(s) you are dealing with will dictate which fungicide(s) are available for use; **2.) Fungicide selection**- there are more fungicides available for management of *Rhizoctonia* compared to *Pythium.* The principle fungicide for pod rot is Abound (24.5 fl oz/A), which has activity on both *Rhizoctonia* and *Pythium*. Other fungicides, such as Artisan and Convoy (both with the same active ingredient, flutolanil) have activity against only *Rhizoctonia.* Other fungicides such as Folicur (as well as other generic formulations of tebuconazole) and Provost are labeled for *Rhizoctonia* pod rot, but are more appropriate for use against the manifestation of limb rot (symptoms also associated with *Rhizoctonia*); however, their labels specify that applications are made in a 4-block regime with rates that are not effective against pod rot. Fungicide options for Pythium other than Abound are limited to various formulations of Ridomil; **3.) Application timing–** initial applications should be made 60 to 75 days after planting. Earlier applications may limit the amount of product deposited to the pods; whereas, later applications will be tied up in the plant canopy also affecting the amount of fungicide reaching the pegging zone; **4.) Application method-** the activity of these products can be increased substantially when applied via chemigation as the increased carrier volume can be used to penetrate the canopy and foliage. Furthermore, the banding of initial applications are often more cost effective and concentrates the fungicides directly where the taproot crop will develop. 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. Administering irrigation soon after fungicide applications will also help to redistribute fungicides deposited on the foliage and increase concentrations delivered to the pegging zone. Application of fungicides at night when the foliage is folded allows for improved deposition and should increase activity. If you have any questions regarding peanut pod rot call me at 806-632-0762; or jewoodward@ag.tamu.edu. **JW**


Pythium pod rot


Rhizoctonia pod rot



Page no. 1 of the Abound label

"The principle fungicide for pod rot is Abound (24.5 fl oz/A), which has activity on both Rhizoctonia and Pythium."


Symptoms of Limb rot.

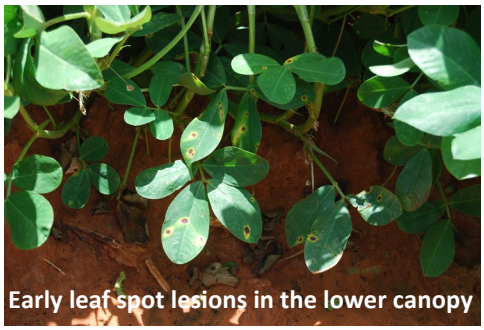
Peanut Disease Update (cont.)

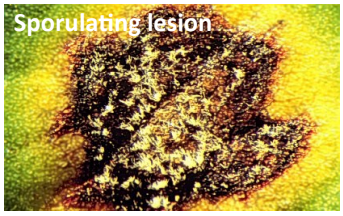

Symptoms of Sclerotinia blight

The cool and rainy conditions experienced recently were ideal for the development of Sclerotinia blight, caused by *Sclerotinia minor*. 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 over-wintering structures, may be produced on or within infected tissues. Sclerotinia blight is very destructive and can develop quickly, especially when there is lush growth and a dense canopy. Management of Sclerotinia blight is achieved through the use of resistant varieties, such as **Tamrun OL07** and **Tamrun OL11** (runners) or **Jupiter** (virginia), and preventative applications of the fungicides **Omega** or **Endura**. Several experimental fungicides are being evaluated for activity against Sclerotinia blight.


Signs of Sclerotinia blight

Prior to the rain events, several reports of leaf spot were made. While these reports have not been confirmed, scouting should be conducted to monitor disease development. Initial symptoms of leaf spot generally occur in the lower canopy and consist of small, chlorotic flecks on the leaf surface. These lesions may be easily confused burns caused by herbicide damage. As the disease progresses lesions become evident throughout the canopy. The production of microscopic fungal seed, called spores, within lesions (pictured below) can be used in the diagnosis of leaf spot. Spores from these lesions are disseminated by wind, rain, or irrigation. Under favorable conditions, leaf spot can develop quickly with new lesions appearing every 10 to 14 days. For more information on peanut diseases or fungicides contact Jason Woodward at 806-632-0762 or jewoodward@tamu.edu. **JW**


Early leaf spot lesions in the lower canopy


Sporulating lesion

"Sclerotinia blight is very destructive and can develop quickly, especially when there is lush growth and a dense canopy."

Fungicides used for the control of Sclerotinia blight, and Rhizoctonia and Pythium pod rot.

a.i.	Trade name(s)	Manufacturer	Rate	Disease activity
Azoxystrobin	Abound	Syngenta	24.5 fl oz/A	Rhizoctonia and Pythium pod rot
Boscalid	Endura	BASF	10.0 fl oz/A	Sclerotinia blight
Fluazinam	Omega	Syngenta	1.0 - 1.5 pt/A	Sclerotinia blight
Flutolanil	Convoy or Artisan*	Nichino	1.25 - 2.0 pt/A	Rhizoctonia pod rot
Mefenoxam	Ridomil Gold EC	Syngenta	0.5 to 1.0 pt/A	Pythium pod rot

Activity of these fungicides towards foliar diseases vary. If leaf spot develops, products containing chlorothalonil, such as Bravo should be utilized. Artisan differs from Convoy in that it also contains propiconazole (which has leaf spot activity).

HOPE

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Peanut Butter for the Hungry

This newsletter is for you the producers and other members of the peanut industry. If you have any questions, comments or suggestions for the newsletter please contact Jason Woodward

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