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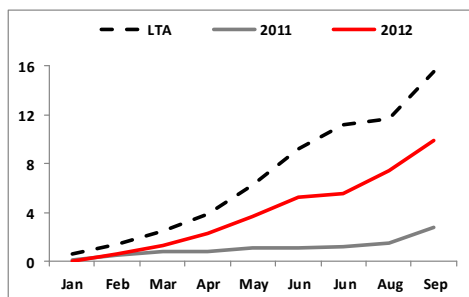


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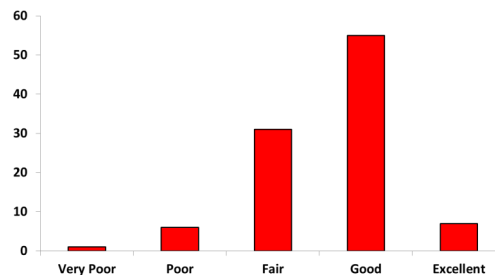
Current Peanut Situation

I continue to be surprised by the condition of this peanut crop, despite the relatively harsh growing conditions that have been experienced this season. According to the National Weather Service (www.nws.noaa.gov) Lubbock has received a total of 9.9 inches of rainfall this year. While this is approximately 37% behind the 30-year average, it is well above the 2.7 inches received at this time last season. The scattered rainfall that was received throughout much of the High Plains and Rolling Plains in August helped supplement irrigation systems a little. Furthermore, the crop benefited from the regulation of temperatures that were also experienced at that time.

Accumulation of rainfall, Jan-Sep for 2011, 2012 and the 30 year long term average (LTA).



The Sept. 10 USDA Texas Crop Progress and Condition report indicates that the majority (93%) of the states crop is classified as fair to excellent.



Classification of the 2012 Texas peanut crop.

As it currently stands, we are heading into the later part of the season with tremendous yield potential in most irrigated fields. With that having been said, there are several things to consider as we prepare for harvest. First, we must take into account differences in maturity among different market-types. This is extremely important in areas, where Valencia, Spanish and Virginia types are being grown instead of Runners. In general, Valencia and Spanish types mature 3-5 weeks quicker than Runners; whereas, Virginia types may be 1-2 weeks shorter.

Current Peanut Situation cont.

As pods mature, the inside portions become brown to black, while immature pods retain a fresh, white appearance. The cellular layer just below the outer layer of the pod undergoes several color changes during the maturation process. It changes in color from white to yellow to orange to brown and finally black as the pod matures. This color distinction can be used to estimate crop maturity with the pod blast or hull scape methods. To get an accurate estimate of the field, collect three adjacent plants (about 1 foot of row) from three to five locations. The optimum time to dig a peanuts is when they have reached peak yield and grade.



Pod blasting using a high pressure washer to determine maturity.

Because of the indeterminate fruiting habit of peanuts, each plant will have pods of varying maturity. Consequently, the risk of losing early-set mature pods versus later-set immature pods must be considered, and a compromise must be achieved. Runner types should be dug at 70 to 80 percent maturity, Virginia types at 60 to 70 percent,

while Spanish and Valencia types should be dug at 75 to 80 percent maturity.



Determining maturity by categorizing pods based on color using a profile board.

The greatest potential for harvest related losses occur when peg integrity declines. Studies conducted on the High Plains have shown that increases in both Valencia and Virginia yields can be achieved with later digging dates; however, close attention should be paid to overall maturity, weather conditions and disease development. In the aforementioned studies, yield reductions were observed when vines were rained on while curing in the windrow. Another issue that is related to over-maturity is sprouting in the hull. This can occur when pushing shorter-season market types too hard. Sprouting in the hull may be more severe with high soil moisture and when soilborne diseases occur late in the season.

Spanish peanut seeds that have sprouted in the hull.



“The optimum time to dig peanuts is when they have reached peak yield and grade.”

Current Peanut Situation cont.

Many producers are in the process of shutting off irrigation in cotton; however, terminating irrigation too soon in Runner and Virginia peanuts could be a risky proposition. Research conducted in both Texas and Georgia has shown that stressing peanuts late



Center pivot irrigation system

in the season could negatively affect both pod yields and grade. Irrigation or rainfall is still required to fill out maturing pods. Furthermore, adequate soil moisture is also needed to facilitate digging and minimize pods left in the ground.

“Terminating irrigation too soon in Runner and Virginia peanuts could be a risky proposition.”

Late Season Disease Management

I have received several calls regarding potential for yield loss associated with late season disease development. This can be a difficult thing to access, due to several factors. With environmental conditions attributing greatly to disease development, it is difficult to make specific recommendations. Especially since there are a number production regions throughout the state. Each of these regions has different disease issues, as well as production practices. Take for example. differences in leaf spot management. Producers in South and Central Texas, and to a lesser degree the Rolling Plains deal with leaf spot on a routine basis. This is due to the high relative humidity that is experienced throughout the season in these areas. In contrast, the arid climate of the High Plains is less conducive for leaf spot development. Irrigation and dense plantings can lead to disease development; however, leaf spot pressure is generally low until later in the season, when conditions favor disease.



Early leaf spot (yellow) and late leaf spot (red) occurring in the lower canopy.

Decisions to make fungicide applications depend on which leaf spot (early or late) you are dealing with, the potential for losses to occur, pre-harvest intervals for the fungicides and secondary inoculum. Although early leaf spot (*Cercospora arachidicola*) and late leaf spot (*Cercosporidium personatum*) are similar in appearance. Late leaf spot is considered to be more aggressive and difficult to control with certain fungicide products (primarily those that contain propiconazole, such as Artisan, Propimax, Stratego and Tilt) than early leaf spot; therefore, distinguishing between the two is important.

“Producers in South and Central Texas, and to a lesser degree the Rolling Plains deal with leaf spot on a routine basis.”

Late Season Disease Management cont.

Early leaf spot is characterized by brown lesions that are usually surrounded by a yellow halo. The brown discoloration is most evident on the lower leaf surface, whereas, sporulation of the fungus (production of spores) occurs as gray to tan tufts on the upper leaf surface.



Sporulation of an early leaf spot lesion on the upper leaf surface. Note the yellow halo.

Lesions of the late leaf spot pathogen are typically dark brown to black. Sporulation of this fungus occurs more readily on the lower leaf surface and appears as dense mats of darkly colored spores. These differences can be more easily observed with a hand lens or magnifying glass.



Sporulation of late leaf spot lesion on the lower leaf surface. Note the dark color and dense nature of the spores produced.

The potential for losses to occur is dependant on the level of disease that is present, time till harvest and weather forecasts. Peanut plants can tolerate relatively high levels of leaf spot. Considerable defoliation can occur with little affect on yield; however, good plant condition must also be maintained. If lesions develop on pegs, harvests losses can result. Furthermore, poor vine integrity may lead to problems with digging and windrowing of plants.



Fungicide residue on peanut foliage.

Fungicide applications should be considered if more time is required to reach optimum maturity. In addition to time to harvest, close attention needs to be paid to weather patterns and forecasts. Leaf spot can develop rapidly if excessive rainfall and moderate temperatures are experienced. As we get into the harvest season, scouting should continue on later maturing plants. Inoculum levels will increase due to the combing of infected plants in adjacent fields and release of spores. Most fungicides recommended for leaf spot have a pre-harvest interval (PHI) of 14 days; however, those for some products may be longer. Refer to product labels for specific PHI's.

“Lesions of the late leaf spot pathogen are typically dark brown to black.”

Late Season Disease Management cont.

“Research trials are being conducted to screen cultivars and breeding lines for resistance or tolerance to Verticillium wilt.”

The soilborne fungus *Verticillium dahliae*, causal agent of Verticillium wilt, is indigenous throughout the High Plains, and is capable of infecting numerous crop plants. Once a field becomes infested, the pathogen is capable of surviving in the soil for many years as microsclerotia, which germinate in response to root exudates. After infecting through the roots, the fungus clogs the

vascular system and results in wilting. Leaves of infected plants are pale green, have mottled appearance, and die from the leaf margin inward. Infections occur early in the season; however, and symptoms are most evident during pod fill. Dis-

ease incidence is related to populations of the fungus in the soil. In severely infested fields, 80% of plants can exhibit

symptoms of the disease, as a result plants may need to be dug prematurely.

There are fungicides labeled for use against the disease.

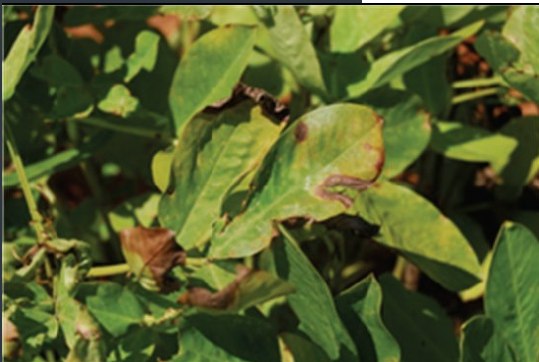
Research

trials are being conducted to screen cultivars and breeding lines for resistance or tolerance to Verticillium wilt.



Symptoms of Sclerotinia blight.

The risk of Sclerotinia blight (caused by *Sclerotinia minor*) development should also be monitored, especially if more than 30 days are needed to maximize maturity. The terminals of plants exhibiting symptoms of Sclerotinia blight appear wilted, with bleaching and shredding noticeable on the lower limbs. The presence of fluffy, fungal growth and small irregular shaped sclerotia are characteristics of the disease. If applications of Omega or Endura are warranted, maximum label rates should be used. In the future, partially resistant cultivars should be used in fields with a history of the disease. Refer to the Texas Peanut Production Guide (http://peanut.tamu.edu/files/2011/10/D_peanut_pdfs_productionguide07_3.pdf) for more information about peanut fungicides



Symptoms of Verticillium wilt.



A field with a high incidence of Verticillium wilt.



Signs of Sclerotinia blight in the lower canopy.



HOPE

Peanut Butter is a protein powerhouse. No wonder it's the most requested food by food banks. Help us spread the hope at peanutbutterforthehungry.org

**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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