TEXAS AGRILIFE EXTENSION SERVICE

Peanut Progress Report

VOLUME 2, ISSUE 3 JULY 3, 2008

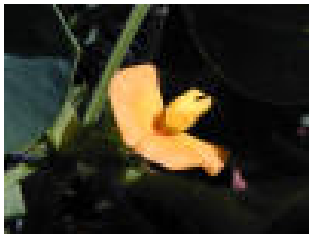
SPECIAL POINTS OF INTEREST:

- Peanut Production Update
- Herbicide Drift Things to Consider
- Disease Update

Peanut Production Update

Todd Baughman – Extension Peanut Agronomist

Wind and hot, dry weather continue to be a concern with this year's peanut crop. Along with this we are not seeing the nodulation that we would like to see in some of our peanut fields. Peanut plants should be carefully dug up and examined for nodulation. While we prefer to see a larger number of active nodules on the taproot, active nodules (those pink to red inside) on the lateral roots can also contribute to the plants overall nitrogen needs. If overall nodule counts are below 10 than you will most likely see a benefit to supplemental nitrogen applications. Consider keeping your nitrogen applications below 30 lb/A per application and stay away from late season nitrogen applications to reduced potential problems with pod rot. On another note U.S. peanut conditions are currently rated 50% good to excellent with another 40% rated fair. The crop ratings are less favorable in Florida and South Carolina. The U.S. crop is over 25% pegging which is on course with the five year average. Weather conditions for the entire peanut belt appear to be on the dry side for the most part as well. Give me a call @ 940.552.9941 ext. 233 or by e-mail: TBaughma@ag.tamu.edu with any additional peanut production issues you might have.



Peanut bloom

Herbicide Drift Things to Consider

Peter Dotray – Extension Weed Specialist

We are in full swing spraying postemergence herbicides to control weeds in peanut and cotton fields and perhaps need a gentle reminder of proper application stewardship. I have seen Roundup drift on peanut at a few locations already this year and thought a list of "Preventative Measures" to help control drift might be timely for this time of year.

1. Avoid spraying in windy conditions! High wind speed is the number one cause of herbicide drift. When wind speed is doubled, the horizontal distance spray droplets travel is also doubled. Conversely, do not spray when winds are extremely calm (see temperature inversion below).

2. Larger droplets reduce drift potential. The smaller the droplet, the longer the time it takes to fall from the tip to the target (weeds or soil) and the farther it will drift. Larger and more uniform droplets reduce the potential for drift. The ideal droplet size is 400 to 800 microns. Smaller droplets also evaporate faster and herbicide efficacy will be reduced.

3. Use larger nozzle orifice size. Larger orifice nozzles with high delivery rates produce a thicker sheet of spray solution and larger droplets than nozzles with a small orifice size.

Herbicide Drift Things to Consider - Cont.

Phenoxy drift on cotton

"Avoid spraying in windy conditions! High wind speed is the number one cause of herbicide drift."

4. Decrease spray pressure. Increased spray pressure causes the spray sheet to be thinner. This thinner sheet will break into smaller droplets than a thicker sheet produced at lower pressure.

5. Use drift reducing-type nozzles. There are many nozzles designed to produce a higher percentage of large spray droplets and lower percentage of spray "fines". Select a nozzle that works best with your sprayer and the weed control scenario that you are facing.

6. Consider using a drift retardant agent. There are several drift retardants that can be added to spray mixtures to reduce the percentage of "fines" in herbicide applications. Check labels and make sure that these products are compatible with the spray mixture. It is generally not recommended to use both reduction tips and retardant agents at the same time.

7. Lower boom height. When the boom height is set too high, droplets must fall further, increasing the chances for drift. Setting the boom at the lowest possible height while maintaining proper spray overlap and will reduce the chances of drift.

8. Spray during times of high humidity and low temperatures. Weather conditions can affect the potential to drift. The optimum conditions for low risk are higher humidity levels and lower temperatures.

9. Avoid spraying during a temperature inversion. A temperature inversion occurs when a layer of warm air gets trapped between two layers of cooler air. Spray particles can get caught in the layer of warm air and move offsite for long distances.

10. Minimize potential of spray drift to come in contact with sensitive plants. Make applications when sensitive plants are not present, avoid applications near sensitive plants, spray when wind is moving away from sensitive plants. Use a shielded sprayer. Avoid aerial applications near sensitive areas. Where conditions warrant it do not spray the last pass around field or to the end of fields to minimize drift to adjacent fields.

Most herbicides will not volatilize (a conversion from the liquid state to a gaseous state), but all herbicides move by means of physical drift (the liquid state moving to non-target plants). We must be aware that over-the-top applications of Roundup in Roundup Ready Flex cotton has the potential to damage adjacent crops including peanut. Conversely, applications of Cadre, Pursuit, Cobra, and 2,4-DB made to peanut can damage adjacent cotton fields. Call Pete @ 806.746.6101 with any of your weed control issues.

Pursuit drift on cotton plant

Glyphosate drift on peanut

Disease Update

Jason Woodward – Extension Plant Pathologist

Overall, things are off to a good start from a disease standpoint; however, there are a few diseases that are worth mentioning. I have been in several fields over the past two weeks and have observed symptoms of Pythium on the roots of plants that have been impacted by herbicide injury, severe hail, and/or blowing sand. *Pythium* spp. were consistently isolated from the epidermis of symptomatic plants. While, *Pythium* was associated with a few dead plants, the majority of infections were superficial. However, with any of these infections comes the potential for increased *Pythium* inoculum, which may impact the development of pod rot later in the season. Pod rot is one of the most economically important peanut diseases in Texas, causing significant losses in all market types. Pythium pod rot is more severe when frequent rainfall is experienced during pod development. Pod rot often remains unnoticed, due to the fact that infected pods are beneath the ground; therefore, peg and pods need to be sampled routinely, throughout the season. Initial symptoms of Pythium pod rot include a browning and extensive water-soaking of the pod on which soil may adhere. As the disease progresses, infected pods become decayed and black. In addition to pods, pegs may also be infected; resulting in pod lost being lost during harvest. Pod rot is managed primarily through the use of preventative fungicide applications. Fungicides with activity against Pythium pod rot consist of Abound (suppression only at 24.5 fl oz per acre) and several formulations of Ridomil. You can view specific fungicide labels at www.cdms.net. The pod rot complex involves a number of different soilborne fungi in addition to *Pythium* spp., such as *Rhizoctonia solani*, *Sclerotium rolfsii*, and *Thielaviopsis basicola*.

I have also seen plants exhibiting symptoms of Aspergillus crown rot (caused by *Aspergillus niger*) in fields in Gaines, Terry, Lubbock, Dawson, and Erath counties. Stand losses associated with crown rot have ranged from trace levels to ~1%. These levels do not generally translate into yield reductions; therefore, fungicide applications are not warranted. The most obvious symptom of crown rot is the sudden wilting of plants. From a distance, crown rot may resemble other diseases, such as Pythium; however, a close examination of the crowns and lower vascular tissues of wilted plants will reveal a dark brown discoloration, and the production of dark black spore masses. Seedlings and young plants are most susceptible to infection, and in extreme instances may result in noticeable stand reductions. As plants mature, they generally become less susceptible; however, the fungus can continue to kill plants throughout the season, especially during periods of drought stress and/or high soil temperatures. Other factors associated with crown rot include planting low quality seed, the use of non-fungicide treated seed, as well as crown and root feeding insects.

If you have any questions regarding Pythium pod rot, Aspergillus crown rot, or any other peanut diseases please contact me at 806-746-4053 or via e-mail jewoodward@ag.tamu.edu.

Pythium on peanut hypocotyls (Note water-soaked appearance).

Plant exhibiting symptoms of Aspergillus crown rot.

***Aspergillus niger* spores on the crown of a dead peanut plant.**

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