



Current Crop and Insect Situation:

Rainfall has delayed cotton planting across the state. With the current weather pattern of cooler temperatures the possibility Ascohyta or wet weather blight may develop especially if hard driving rains occurred once the crop is planted and emerged.

For planting decisions please contact:
**J.C. Banks 580-482-2120 or
Shane Osborne 580-482-2633.**

Seedling Disease:

Cotton seedling disease pathogens attack and kill cotton seeds or seedlings or reduce the viability of the cotton plant. After planting, the seeds are attacked by fungi before the seed can germinate, which results in decay of the seed. Pre-emergence “damping off” can occur, which is defined as death of the cotton seed after it germinates but before it emerges above the soil surface. Postemergence damping may occur, which means that the cotton seedling is killed after the seed has germinated and emerged above the soil surface. Seedling root rot may occur up to several weeks after planting and kills the tap root, causing the cotton plant to respond by producing secondary roots.

While seedling root rot will not kill the plant outright, the cotton plant will have a shallow root system, which leads to a loss of vigor of the plant and causes reduces yields. Monitor fields closely during this critical time and contact this office if concerns or questions arise.

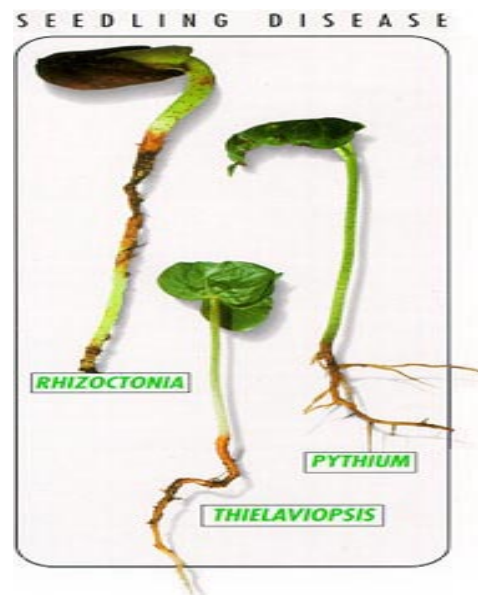


Photo courtesy of Cotton Foundation

ASCOHYTA (OR WET WEATHER) BLIGHT



ASCOHYTA (OR WET WEATHER) BLIGHT

Disease develops rapidly during periods of high humidity

Hard driving rain splashes pathogen up onto the plant

DRY WEATHER STOPS EPIDEMIC

Disease Symptoms

- ▶ Occurs principally on leaves and stems

- ▶ Lesions first appear as small “purple ink spots”
 - later the lesions become brown with ashy colored centers
 - at this point the centers of mature lesions fall out

- ▶ Complete defoliation may occur

✓ **Key for survival if terminal growing point remains free of fungal pathogen**

State of Oklahoma cotton.



Wet fields delaying planting.

Best Management Practices

Excerpts from
*“The First Forty Days
The Most Critical Period in
Cotton Production”*

Early Season Insect Control

One of the most detrimental influences on crop uniformity, earliness and the season-long crop management system is thrips. These pests can reduce cotton yields by 70 percent or more. Controlling thrips, as discussed in both workshops, may have more impact upon profitability than any other single input or practice during the first forty days of crop management. Choices made at-planting to reduce inputs on early season pest management can result in delayed maturity, a higher overall production cost at season’s end, lower yields and lower fiber quality.

➤ **Primary criteria.** Based upon history, choose an at-planting systemic insecticide with the longest residual possible. Avoid programs or systems built around “automatic” oversprays for thrips control, which can lead to aphid and mite problems as the season progresses. Poor environmental conditions or slow management decisions also can make timely foliar applications difficult to achieve. Ideally, the at-planting, systemic pest control input would provide control of thrips and other arthropod pests throughout the first forty days.

The length of control of various at-planting insecticides ranges from a low of 14 days after planting with a seed treatment up to five to six weeks after planting with an in-furrow granular.

➤ **Secondary criteria.** Recognize residual limitations. Scout and overspray as required to assure insect control through the first forty days – especially during periods of cool temperatures or extremely dry conditions. It is absolutely critical to protect the plant and keep it healthy through the 4-true-leaf stage.

If Lygus bug pests are an issue, it's important to keep populations low from the beginning. With all early season insect pests, it is important to limit population growth resulting from immigrations and reproduction.

Entomologists agreed that pre-plant weed control and seedbed preparation, as well as weed control around field perimeters are cultural factors that lead to optimal and efficient insect control by eliminating host plants and breeding sites. One recommendation is that seedbeds should be free of all green plant tissue for at least three weeks prior to planting.

Growers also would be well advised to evaluate systemic inputs based upon the range of pests controlled, including nematodes and mites, as well as thrips. An increased incidence of mites in Rain Belt cotton states could be attributed to wider use of foliar applications of broad-spectrum insecticides. It was noted in the Upper South workshop that mites are an “induced pest,” due to an increased early use of broad spectrum insecticides – particularly in no-till and conservation-till fields. It also was pointed out that problems with mites have been reduced where an in-furrow insecticide-acaricide was used.

Weed Control

Weed control at planting and three weeks prior to planting, are important for planting efficiency and pest control. Thus, weed control is addressed in planting-time BMPs. Weed control is a primary category in the cotton production system, ranked fourth by participants in both workshops. The discussions in each workshop were much the same. There was a common theme concerning any weed control system, including Roundup Ready®: To sustain weed control technology, don't rely totally on a single weed control system. The Lower South group recommends rotating systems.

➤ **Primary Criteria:** To sustain technology, rotate weed control systems and use residual herbicides in the weed control program. It was specifically noted and discussed that the incidence of resistant weeds is increasing faster than originally thought among weed scientists, making herbicide rotation extremely important. The Lower South group specifically outlined these recommendations:

- Stop sole reliance on the use of glyphosate;
- Reduce the number of herbicide post-emerge applications;
- Don't increase rates above label guidelines; consider use of residual herbicides and weed populations when developing a program;
- Historical problems by field and/or areas within fields should be the focus;
- Weed spectrum may require residual herbicides;
- Size of weeds and timing of oversprays are very important when selecting a tankmix;
- Be aware of tankmix antagonism when selecting herbicide combinations.

Pigweed was singled out as an example for the need for herbicide resistance management by the Lower South group. One plant produces approximately 400,000 seeds, which makes an additional 5 percent control extremely beneficial.

➤ **Secondary Criteria.** Treat weeds in a timely manner and keep weed competition out of the field by three to five weeks after planting. It was noted that the seedling crop will tolerate weed competition without yield damage up to three or four weeks after planting depending on weed density.

FOR FURTHER INFORMATION CONTACT:

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