Cotton Outlook OSU

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Current Crop and Insect Situation:

Much needed rainfall has halted planting that was getting under way in the southern part of the state. Temperatures are forecasted to be lower than normal this week. By the time fields dry enough to resume planting soil temperatures should be at the minimum range for germination. Soil temperatures should then be monitored before resuming planting. Soil temperature and other weather data can be obtained at http://www.agweather.mesonet.org/ or by contacting our office.

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

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.

16721 US Hwy. 283 • Altus, OK • 73521 • (580) 482-8880
Email: jrg@osu.altus.ok.us Website: osu@altus.ok.us

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 IMFORMATION CONTACT:

Jerry Goodson
Extension Assistant
16721 U.S. Hwy 283
Altus, Oklahoma 73521
Office: 580-482-8880
Mobile: 580-471-8969
E-mail: jrg@osu.altus.ok.us