Day time temperatures are warming up (> 90°F) which will help growth of cotton. Last weekend rains and rains last night are keeping fields wet, which are delaying field operations. As fields dry, fields are being sprayed for weeds (which are a major problem) and “scratched” to keep the soil from crusting and to reduce the sand from blowing. We have cotton ranging from emergence to the 5th to 6th true leaf growth stages and some grain sorghum fields have 7 to 10 leaves and will be developing “boots” soon. Some of the early (May) planted cotton have had some severe weather damage and some thrips damage.

**Thrips.** Fields that scouts and I have scouted have averaged < 1.0 thrips per plant with minimal plant damage. Occasionally, individual plants will have several thrips and they are mostly being found in the plant terminal. Cotton will be growing rapidly with the hotter temperatures and should out grow the potential for substantial thrips damage. Thrips should not be a concern when cotton reaches the 5-6 true leaf stage.

**Grasshoppers.** Jumbo’s (Lubber) and other grasshoppers have been seen in cotton in weedy areas, along the ditch banks, and mostly adjacent to mesquite pasture areas. Again, there are no established economic thresholds, but field observations indicate lubber populations of one (1) per three (3) row feet in the field or two (2) per square yard in vegetation around the field may cause economic damage. And, for other grasshoppers, treatments may be justified if there are twenty (20) or more grasshoppers per square yard in crop margins or 10 or more per three (3) row feet in the field. Individuals with more experience with grasshoppers indicate insecticide control is somewhat limited once grasshoppers get into the field and fields must be retreated every 3-5 days. Another treatment option is to control grasshoppers in non-crop areas which includes field borders, road ditches, fence rows, CRP, etc. A product labeled for non-crop areas is Dimilin @ a rate of 0.5-1.0 fl. oz/acre. Do not exceed a total of 2.0 fl. oz./
This product works well against immature (nymph) grasshoppers, has good residual activity, but may take 3 to 10 days to provide very good control. Other recommended insecticides include Chlorpyrifos 4 E @ 8.0 to 16.0 oz./acre, Bidrin 8 E @ 4.0 oz./acre, Mustang Max @ 3.0-4.0 oz./acre, Baythroid XL @ 2.0—2.8 oz./acre, and Asana XL @ 5.8-9.6 oz./acre.

**Cotton Fleahopper.** Some fields are not that far from when cotton begins to square and will need to be monitored for the cotton fleahopper and the % square retention. There have been numerous alternate weed hosts for fleahoppers to develop on this spring. This could be a year when cotton fleahoppers are an major pest. The adult cotton fleahopper is relatively small, approximately 1/8 inch long. Adults are yellowish-green with a flat oval body and has distinctive black dots on the upper surface. The immature nymphs resemble the adults, but do not have wings and are generally pale green in color. Adults and nymphs will generally be in the plant terminals, but will crawl and fly (adults) when disturbed. Both adult and immature fleahoppers feed on pinhead size and small squares, which causes the square to turn brown and die, resulting in a blasted appearance.

**Management.** The decision to apply insecticide should be based on the number of fleahoppers present, the squaring rate and the percent square set. If conditions are conducive to the rapid build up of cotton fleahoppers in alternate hosts, scouting intervals should be shortened (i.e., monitor fields every 3 to 4 days). Our current management guides suggest control be implemented during the first week of squaring, when there are 25 to 30 cotton fleahoppers per 100 terminals combined with less than 90 percent square set. In the second week of squaring, when there are 25 to 30 cotton fleahoppers per 100 terminals combined with less than 85 percent square set. And, with the third week of squaring up to first bloom, treat when there are 25 to 30 cotton fleahoppers per 100 terminals combined with less than 75 percent square set. Recent research indicates the percentage square set threshold during the first and second week of squaring could be lowered to 75% to 80%. Also, results from the studies suggest waiting until the second week of squaring to apply a single insecticide application may be better than making a single application during the first week of squaring. This may be because there are very few fruiting positions and number of square during the first week of squaring.

Remember, we want to protect this early season fruit because this will protect the majority of the 1st position fruit, which contributes to 60%-90% of the total crop harvested (note graph, by Mr. Charles Stichler, retired Extension Agronomist), depending on plants per foot. Also, significant early square loss drastically delays maturity. Dryland cotton may not be able
to make up for early losses like irrigated cotton.

**Weed Management**

The wet conditions have caused problems in making timely herbicide applications. The window for spraying Roundup Ready cotton over-the-top (OT) ends at the 5th true leaf stage. If late applications are made after the window closure, research from the Texas A&M Research and Extension Center, Lubbock, indicates yield could be decreased from 5% to 19%. If cotton is past the 5th true leaf stage, two post-directed or shielded sprayer applications can be applied at a maximum 22 oz./acre per application. There should be ten days and two additional mainstem nodes of growth before making the second application. Adjust the sprayer to direct the spray to the bottom of the cotton plants, try to minimize spray contact to the leaves, and use less than 30 psi spray pressure. Of course, this does not apply to Roundup Ready Flex cotton varieties.

Tank mixes of Staple LX @ 1.3-1.7 oz./acre or Dual Magnum @ a rate of 1.0 to 1.33 pt./acre added to glyphosate before the 5th leaf stage may improve control of annual weed species, and also provide some residual control. Residual activity is improved when Staple and Dual is incorporated after application using 0.5 to 1 inch of irrigation water or from rainfall. For the Dual mixtures with glyphosate, applications may be post directed anytime up to the preharvest interval (PHI). Also, it is suggested ammonium sulfate, spray adjuvants, surfactants, fertilizer additives, or other pesticides NOT be included in the spray mix as phytotoxicity/crop injury may occur with the Dual formulation. For more information contact the chemical representative for these products and follow label directions.

In 2006, the Roundup Weather Max and Original Max formulations were “tweaked” for Roundup Ready Flex cotton varieties. These glyphosate formulations have a higher acid equivalent (a.e.)/ gallon (at 4.5 lb per gallon) than other glyphosate products. Also, the glyphosate formulations with the orange “starburst seal” on the label should be used in Roundup Ready Flex cotton due to the potential of experiencing leaf burn with other formulations.

This weed management information comes from the FOCUS on South Plains Agriculture newsletter, volume 46, no. 4. at http://Lubbock.tamu.edu/focus/.

**IPM Newsletter**

The newsletter provides information about insects, weeds, diseases, and crop management suggestions for cotton and other major crops in Jones, Mitchell, Nolan, and Scurry counties. The newsletter is available for free if sent by e-mail, but due to increasing postage rates, the newsletter by mail will cost $10.00 per year. Newsletters are also available at web sites for the Lower Rolling Plains IPM (http://lripm.tamu.edu), Texas Pest Management Association (http://www.tpma.org), and the Nolan County Extension office (http://nolan-co.tamu.edu). Please complete the enclosed subscription card and return to Ed Bynum, 100 E. Third St., Ste 305, Sweetwater, TX 79556. **If you receive the newsletter by mail, and there is a red mark next to your name, this will be the last week the newsletter will be mailed unless you send in your subscription.**
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