CONSULTANTS CONFERENCE: WEED AND RESISTANCE ISSUES A. Stanley Culpepper University of Georgia Tifton, GA

Abstract

Few tools are being developed to help the cotton grower combat an ever increasing issue of managing weeds, most notably glyphosate-resistant weeds. In 2011, Glytol + LibertyLink technology will be available in some areas on a limited scale with greater adoption expected by 2013. This technology will offer growers the opportunity to make topical applications of Ignite and glyphosate without crop tolerance issues which are often noted with Phytogen's Widestrike cotton cultivars. The ability of using both Ignite and glyphosate in a weed control program will likely improve weed control for most growers. For a typical Roundup system, the addition of Ignite will improve control of cutleaf eveningprimrose, morningglory, volunteer peanut, glyphosate-resistant horseweed, glyphosate-resistant ragweed, and glyphosate-resistant Palmer amaranth. For the Ignite system, the addition of Roundup will improve control of numerous annual grasses (especially goosegrass), perennial grasses, and nutsedge. It is imperative that even with this technology, residual herbicides should be used throughout the crop for effective season-long weed control. Although this technology will benefit cotton growers for weed control, cultivar development is still in progress with limited cultivar selection currently.

Dicamba- and 2,4-D- resistant cotton are in development but will likely not be commercialized until at least 2015. A survey of cotton weed scientist across the U.S. in 2009 noted that these technologies will have tremendous value because of the following: 1) improving management of glyphosate-resistant weeds (glyphosate-resistant Palmer amaranth, horseweed, and ragweed), tropical spiderwort, perennial broadleaf weeds; 2) elimination of intervals needed between burndown applications of 2,4-D or dicamba and planting; 3) a new mode of herbicide action available for cotton producers; 4) 2,4-D and dicamba are economical; and 5) these herbicides are effective tools to rotate with glyphosate for resistance management programs where glyphosate resistance is not present. Dicamba- and 2,4-D-resistant cotton offer growers many advantages but scientists also noted several challenges must be addressed before these technologies could be adopted, including: 1) physical drift to sensitive crops (most important); 2) tank contamination; 3) volatility; 4) cost of technology; and 5) accidental application to non-resistant cultivars.

Additional concerns with weed control include the cotton industry's ability to preserve currently used and valued herbicides. The recent near cancellation of MSMA and the current cancellation of Cotoran in one Georgia county and five Alabama counties stresses our vulnerability in the loss of needed weed management tools for cotton production.