ASSESSING ECONOMIC BENEFIT WITH GLYPHOSATE AS A FOUNDATION FOR COTTON PRODUCTION SYSTEMS

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Abstract

One of the factors a producer considers when selecting a production practice is the economic benefit of the system. This study was conducted to assess long-term viability of glyphosate-resistant technology as a foundation for cropping systems. Researchers in six states, Illinois, Indiana, Iowa, Nebraska, North Carolina, and Mississippi, established 156 on-farm sites in 2006-2007. In Mississippi and North Carolina one production system that was investigated was continuous Roundup Ready cotton. On-farm sites were divided into two halves of the field with different treatment regimes consisting of the producer's normal glyphosate-based program and university recommendations based on weed resistance management principles. All costs were kept constant between the two systems except the cost and application of the different herbicides. Data from 2006 were analyzed for total expenditures and returns to determine net returns. Producers are reluctant to use different herbicides in combination with glyphosate because of economic loss. The university weed management system used different modes of action along with residual herbicides which increased herbicide cost, but reduced weed pressure resulted in a yield slightly higher than the producers half. Weed management systems were similar in net returns. Thus, there were no losses from using the university-recommended weed resistance management program.