Evaluating preemergence herbicides and seed treatments in cotton

Pest management in cotton production tends to be more problematic than in other row crops. Multiple insecticide applications are typically required to maximize yield and economic returns. In addition, herbicide options have always been limited in cotton, a situation that has been made worse by the development of glyphosate-resistant weeds.

In the November–December 2016 issue of Agronomy Journal, researchers report on multi-year studies from multiple locations in Mississippi that investigated the effect of preemergence herbicide application as well as insecticide seed treatments on cotton growth, development, and yield.

Application of preemergence herbicides had no effect on thrips infestation in cotton. In addition, application of preemergence herbicides did not impact cotton yield. Thrips injury was greater when cotton seed was treated with thiamethoxam (Cruiser) compared with seed treated with imidacloprid (Gaucho). Cotton seed treated with imidacloprid (Gaucho) resulted in yields 90 lb lint/ac greater compared with yield of cotton grown from seed treated with thiamethoxam (Cruiser).

A multi-faceted approach is required for pest management in cotton. Results from these studies suggest that preemergence herbicides had no impact on cotton yield and, thus, should be used as part of a diverse weed management program. However, cotton seed treatments containing thiamethoxam are not recommended in the Midsouth as they provided less thrips control and resulted in lower overall cotton yield. Growers are encouraged to scout for thrips and make foliar insecticide applications when populations exceed economic thresholds.


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