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## Response of Strip-tilled Cotton to Preplant Applications of Dicamba and 2,4-D

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*Weed Science*[Full Text PDF](#) (136K)

Conservation tillage is being adopted by cotton (*Gossypium hirsutum* L.) growers across the southeastern United States. Glyphosate is commonly applied prior to planting to control winter vegetation, but preplant control of certain weeds, especially cutleaf eveningprimrose (*Oenothera laciniata* Hill), requires 2,4-D or dicamba mixed with glyphosate. A field experiment was conducted at seven locations to determine response of strip-tilled cotton to dicamba diglycolamine salt at 280 and 560 g acid equivalent (a.e.) ha<sup>-1</sup> or 2,4-D dimethylamine salt at 530 and 1060 g a.e. ha<sup>-1</sup> applied 1 to 6 wk before planting (WBP). These rates are 1 and 2 times the labeled rates. No adverse effects on cotton were noted when 2,4-D was applied 3 or more WBP. Visible leaf distortion on more than 10% of the seedlings and stand reduction was noted at 1 of 7 locations when 2,4-D was applied 2 WBP and at 2 of 7 locations when applied 1 WBP. Cotton yield was not reduced by 2,4-D at 530 g ha<sup>-1</sup> at any application time, and it was reduced by 2,4-D at 1060 g ha<sup>-1</sup> applied 1 WBP at 1 of 7 locations. Dicamba at 280 g ha<sup>-1</sup> applied 3 or more WBP did not cause leaf distortion or affect stands. Leaf distortion on more than 10% of seedlings was noted at 1 of 7 locations with 280 g ha<sup>-1</sup> dicamba applied 2 WBP, but yield was unaffected regardless of time of application. Dicamba at 560 g ha<sup>-1</sup> applied 3 WBP caused leaf distortion on more than 10% of the seedlings and reduced yield at 1 of 7 locations. Cotton response to dicamba, but not 2,4-D, was generally correlated with rainfall between application and planting.