BUCTRIL/GRAMINICIDE INTERACTIONS ON LARGE CRABGRASS (<u>Digitaria sanguinalis</u>) A. S. Culpepper and A. C. York Research Associate and Professor, respectively Department of Crop Science North Carolina State University Raleigh, NC

Abstract

An experiment was conducted at three fallow area sites and one BXN cotton site in 1995 to evaluate large crabgrass (<u>Digitaria sanguinalis</u>) control with Buctril tank mixed and applied sequentially with postemergence graminicides. Treatments consisted of Select at 6 oz/A, Poast Plus at 24 oz/A, Fusion at 8 oz/A, Fusilade DX at 12 oz/A, and Assure II at 8 oz/A applied three days before, tank mixed with, and three days after Buctril. Additional treatments consisted of each graminicide at a 50% increase in the rate tank mixed with Buctril. Graminicides were not applied alone; however, no antagonism is assumed for large crabgrass control with graminicides applied three days before Buctril.

Large crabgrass control was similar with Select. Poast Plus. Fusion, and Fusilade DX three days before or after Buctril, while Assure II was more effective applied before Buctril. In fallow area trials, early-season large crabgrass control was not reduced when Buctril was tank mixed with Select or Poast Plus. Buctril tank mixed with Fusion. Fusilade DX, and Assure II reduced large crabgrass control 10%, 11%, and 30%, respectively. Increasing the rate of Fusilade DX by 50% in tank mixtures overcame the antagonism, but increasing the rates of Fusion and Assure II by 50% did not overcome the antagonism. In the BXN cotton trial, Buctril tank mixed with Select, Poast Plus, Fusion, Fusilade DX, and Assure II reduced late-season large crabgrass control 17%, 27%, 81%, 67%, and 40%, respectively, and reduced cotton yields 32%, 32%, 67%, 100%, and 100%, respectively. Increasing the rates of Select, Poast Plus, Fusion, or Fusilade DX by 50% overcame the antagonism for large crabgrass control; however, the increased rate of Assure II did not overcome the antagonism for large crabgrass control. Cotton yields with the increased rates of Select, Poast Plus, Fusion, or Fusilade DX in the tank mixture were similar to yields of the sequential applications. Cotton yield with the increased rate of Assure II in the tank mixture was less than that of Assure II applied three days before Buctril.

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