

**ANNUAL GRASS CONTROL WITH LIBERTY AND LIBERTY
ANATAGONISM OF GOOSEGRASS CONTROL WITH SELECT**

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Abstract

Thirteen field trials were conducted in 1999 and 2000 to evaluate weed control with single applications of Liberty at 1.25 or 1.75 pt/A and Roundup Ultra at 1.0 qt/A. Additional treatments evaluated included two applications (EPOST and POST) of Liberty at 1.75 pt/A or Roundup Ultra at 1.0 qt/A. Annual grasses were 1-2 inch or 3-4 inches tall all at the time of EPOST treatment. Liberty controlled 1-2 inch and 3-4 inch tall broadleaf signalgrass, large crabgrass, fall panicum, Texas panicum, giant foxtail, yellow foxtail, green foxtail, and seedling johnsongrass at least 90%. However, Liberty controlled 1-2 inch goosegrass less than 60% and 3-4 inch goosegrass less than 40%. Roundup Ultra controlled all grass species, regardless of size, at least 95%. Goosegrass control with Liberty is problematic, therefore other inputs will be needed for acceptable control.

Greenhouse experiments were conducted to determine goosegrass control with Select and Liberty postemergence alone, in tank mixtures, and as sequential treatments. Three rates of Liberty (0, 1.25, and 1.75 pt/A) and Select (0, 0.375, and 0.5 pt/A) were evaluated at all possible combinations and sequentially at 7 and 14 days after treatment. All treatments were applied to goosegrass at 2 to 4 leaf, 1 to 2 tiller, or 4 to 6 tiller stage. Liberty at either rate alone controlled 2 to 4L goosegrass less than 44% and control was less for 1 to 2 and 4 to 6 tillered goosegrass. Select controlled 2 to 4L and 1 to 2 tiller goosegrass greater than 90% and controlled 4 to 6 tiller goosegrass 68 and 83% at 0.375 or 0.5 pt/A, respectively. All tank mixtures of Liberty with Select reduced goosegrass control at least 50 percentage points. Also, increasing the Select rate did not overcome antagonism. Liberty applied sequentially 7 and 14 days prior to Select application reduced goosegrass control at least 50 percentage points compared to control obtained with Select applied alone. Select at 0.375 or 0.5 pt/A applied 7 or 14 days prior to Liberty application controlled goosegrass equivalent to control obtained with Select applied alone.