

EVALUATION OF CROP TOLERANCE WITH POST APPLIED TANK MIXES OF GLYPHOSATE WITH LORSBAN, FUNGICIDES, AND MICRONUTRIENT FERTILIZER IN SOYBEANS. David C. Ruen*, Sam M. Ferguson, and Bruce E. Maddy, Product Technology Specialists, Dow AgroSciences, LLC, Indianapolis, IN 46268.

Two field trials were conducted in 2006 in southern IL and southern WI to evaluate soybean injury when glyphosate tank mixes with insecticide, fungicide and micronutrient fertilizer treatments are applied late POST in Roundup Ready[®] soybean. Lorsban[®]-4E (chlorpyrifos) was the only insecticide tested. Fungicides tested included Laredo[®] EC (myclobutanil), Headline EC (pyraclostrobin) and Folicur 3.6F (tebuconazole). MAX-IN for Soybeans (0.2% Boron, 0.3% Iron, 3.2% Manganese, 0.01% Molybdenum, 2.1% Zinc analysis) was selected as the micronutrient foliar fertilizer. Both trials were kept weed free with maintenance applications of glyphosate prior to the POST applications at R3 stage of soybean. Crop injury was evaluated at 2, 7 and 14 DAA. Soybean plots were not taken to yield.

Crop injury, expressed as chlorosis and necrosis, was greatest at 7 DAA. Injury was 0-5% for all treatment combinations at the 1X use rates. At 2X use rates injury increased to 4-10% at 7 DAA with some replicate observations of up to 15% injury. Minor leaf necrosis was the only visible injury symptoms 14 DAA.

Compared to glyphosate + AMS alone, slight additive injury was observed as the insecticide or fungicide products were sequentially added. However, this additive effect was not statistically significant at either 1X or 2X use rates.

No significant interaction by insecticide, fungicide or micronutrient addition was observed, with one exception. Addition of MAX-IN to Folicur + Lorsban-4E + glyphosate + AMS at the 2X use rate resulted in noticeably greater crop injury than the two other 2X Folicur comparison treatments which did not include MAX-IN. This level of injury, however, was comparable to 2X use rates of MAX-IN + Lorsban-4E + glyphosate + AMS plus either Laredo or Headline fungicides.

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Lorsban-4E is a Restricted Use Pesticide.