

EVALUATION OF INSECTICIDE INTERACTION WITH AE 0172747. Jerry Hora, John Wollam and Jayla Allen, Field Development Representative, Regional Manager and Product Development Manager, Bayer CropScience, 2 TW Alexander Drive, Research Triangle Park, NC 27709.

Interaction and resultant corn injury has been observed between various classes of herbicides and insecticides. Trials were therefore conducted to determine two factors, (1) does any interaction exist when AE 0172747 herbicide is applied postemergence to corn treated with soil insecticides or seed treatments, or (2) does any interaction occur when AE 0172747 herbicide is tankmixed with foliar insecticides and applied postemergence to corn. Most postemergence applications were made to V3 corn. 2X rates of herbicides and insecticides were used to simulate an overlap situation.

Results showed AE 0172747 did not interact with soil insecticides or seed treatments and maintained safety to corn in all cases. In contrast, the herbicides mesotrione and nicosulfuron exhibited strong to light interaction with soil insecticides in the same trials with corn injury.

AE 0172747 generally did not interact with foliar insecticides when tankmixed and maintained safety to corn. A small interaction between AE 0172747 and chlorpyrifos was noted in Iowa at 2X rates on a sensitive hybrid. Mesotrione exhibited a strong interaction with several foliar insecticides with serious corn injury in these same trials. AE 0172747 appeared safe even when tankmixed with foliar insecticides and applied over soil insecticides.

The AE 0172747 formulation contains the safener isoxadifen. This safener appears responsible for maintaining corn safety with AE 0172747 and preventing insecticide interaction. The added safety that formulated AE 0172747 herbicide exhibits with both foliar and soil insecticides compared to other postemergence herbicides will be a benefit to the corn grower.