

COMPARISON OF ONE-PASS WEED CONTROL PROGRAMS FOR THE NORTHERN AND CENTRAL CORN BELT. Michael J. Urwiler, Brett R. Miller and Michael D. Johnson, Research and Development Scientists and Technical Manager, Syngenta Crop Protection, Greensboro, NC 27419.

The pre-package mixture of mesotrione (2-[4-methylsulfonyl-2-nitrobenzoyl]-1,3-cyclohexanedione), S-metolachlor and atrazine (trade name LUMAX™) was introduced commercially in 2003 by Syngenta Crop Protection for pre-emergence one-pass control of many troublesome grass and broadleaf weeds in field corn. In 38 field trials designed for the Northern and Central Corn-belt, LUMAX was directly compared to other one-pass weed control programs. LUMAX was applied pre-emergence at rates of 2670 to 3300 gai/Ha with the specific rate dependent on soil organic matter. LUMAX was tested alone in areas that limit atrazine rates and with an additional 1120 g ai/ha atrazine in areas that allow for higher atrazine use rates. The results show that several programs, including LUMAX and LUMAX plus atrazine, can be successfully utilized as a one-pass pre-emergence solution for many corn acres in the Northern and Central Corn-belt.