

WEED CONTROL IN CABBAGE WITH SULFENTRAZONE AND FLUMIOXAZIN. Richard G Greenland, Research Supervisor and Associate Agronomist, Oakes Irrigation Research Site, North Dakota State University, P.O. Box 531, Oakes, ND 58474.

Few herbicides are available for weed control in cabbage. We tested flumioxazin and sulfentrazone to determine suitability for cabbage production. These herbicides were applied to both direct seeded and transplanted cabbage.

For direct seeded 'Fresco' cabbage, flumioxazin injured cabbage when applied at 71 g/ha at either the 2 or 4-leaf stage. Weed control with sulfentrazone at 105 g/ha was fair to poor at either application time. All herbicide treatments resulted in lower cabbage yields than the hand weeded check.

In the transplanted 'Bronco' cabbage study, flumioxazin and sulfentrazone were applied at 71 and 105 g/ha, respectively, just before transplanting cabbage (PRE), 1 week after transplanting (1 WAT), or 2 weeks after transplanting (2 WAT). Except for flumioxazin applied PRE, these herbicides caused only minor injury to transplanted cabbage. Weed control was fair to good. Flumioxazin controlled common lambsquarters better when applied 2 WAT, and controlled hairy nightshade better when applied 1 WAT. The reverse was true for sulfentrazone control of common lambsquarters and hairy nightshade. Applying trifluralin preplant incorporated in addition to applying flumioxazin and sulfentrazone 2 WAT, increased weed control and improved yields compared to flumioxazin and sulfentrazone applied alone. Yields from all treatments were lower than the hand weeded check except for the trifluralin plus flumioxazin plus sulfentrazone treatment.