

MARK BREDEHOEFT*, A. G. DEXTER, AND J. L. LUECKE. SOUTHERN MINNESOTA BEET SUGAR COOPERATIVE, RENVILLE, MN 56284*, NORTH DAKOTA STATE UNIVERSITY AND UNIVERSITY OF MINNESOTA, FARGO, ND 58105. ECONOMICS OF SOIL APPLIED AND POSTEMERGENCE HERBICIDES APPLIED ALONE AND IN COMBINATION.

There are multiple management practices that are considered each year and management of weed control is always a concern of producers. The primary concerns are to use or not to use preemergence or postemergence herbicides. Economics determine many management decisions pertaining to weed control. Trials were conducted in 1994 with soil applied and postemergence herbicide on sugarbeets and lambsquarter. Experimental units were hand weeded after herbicide applications were completed. Hand weeding labor cost and cost of herbicide for each treatment was calculated in consideration of economics.

Frontier gave twice the sugarbeet injury compared to other preplant herbicides but also tended to give higher revenue. Ro-Neet at 2.66 pints per acre gave common lambsquarters control similar to Ro-Neet at 5.33 pints per acre.

Postemergence herbicides increased control of common lambsquarters so that 50% rates of preplant or preemergence herbicides plus postemergence herbicides gave common lambsquarters control similar to 100% rates of preplant or preemergence plus postemergence herbicides. Stinger added to Betamix significantly increased common lambsquarters control compared to Betamix applied alone.

Revenue tended to be directly related to weed control. Revenue tended to be as high or higher with 50% rates of Eptam + Ro-Neet plus Betamix + Stinger or Betamix Progress compared to 100% rates of Eptam + Ro-Neet plus Betamix alone.