

WILSON, ROBERT A. and JOHN A. SMITH, University of Nebraska, 4502 Avenue I, Scottsbluff, NE 69361. **Crop production with glyphosate tolerant sugarbeet.**

Approval of glyphosate tolerant sugarbeet has the potential to change the direction of U.S. sugarbeet production during the next century. Weed control with postemergence glyphosate treatments is as effective or in some cases more effective than conventional weed control programs. Glyphosate tolerant sugarbeet exhibit minimal crop injury, particularly during early season growth periods. Reduction in crop injury from currently used postemergence herbicides enhances early season crop vigor and the ability of the plant to capture sunlight and compete with weeds. Improved weed control diminishes the need for cultivation which allows the spacing of sugarbeet in narrower rows. Narrow row planting coupled with enhanced crop vigor means earlier row closure, a crop more competitive with weeds, and the potential for enhancement of sucrose yield.