

PRIMARY TILLAGE EFFECTS ON SOIL SUSCEPTIBILITY  
TO EROSION AFTER SUGARBEET HARVEST

Joseph F. Gillet, Allan W. Cattaneo, Norman R. Cattaneo, and John G. Linn  
Associate Professor, Soil Science Department, North Dakota State University, Fargo,  
North Dakota, Extension Specialist, North Dakota State University and  
University of Minnesota, Fargo, North Dakota; Research Assistant, Soil Science  
Department, North Dakota State University, Fargo, North Dakota and Associate  
Professor, Soil Science, University of Minnesota, St. Paul, Minnesota

ABSTRACT

Lowest damage hazard of erosion of soils of arable land producing low residue  
crop in Minnesota and North Dakota each year according to Soil Conservation Service

CARLSON, HARRY L.<sup>1\*</sup>, and KENNETH A. RYKBOST<sup>2</sup>, <sup>1</sup>University of California  
Intermountain Research and Extension Center, P.O. Box 850, Tulelake, CA 96134 and  
<sup>2</sup>Klamath Experiment Station, Oregon State University, Klamath Falls, OR 97603. - Effect of  
planting date and plant population on beet and sugar yield in the Klamath Basin.

Sugarbeet production is a new industry to the Klamath Basin of Southern Oregon and Northern California. The region has a high desert climate characterized by a short growing season with warm days and cool nights. Because sugarbeet yields are limited by the short growing season, it was assumed that early stand establishment would result in increased yields; although, it was further assumed that stand establishment would be more difficult under the cool, wet conditions typical in early spring. To test these assumptions, a series of sugarbeet planting date experiments were conducted from 1991 to 1993 at Klamath Falls, Oregon and Tulelake, California to determine the effect of date of planting on beet and sugar yields. While the sugar percentage in the beets was unaffected by planting date, beet yields declined with each delay in planting. Beet yield, total sugar production per acre and gross profits dropped 1.75 T/A, 660 lb/A and \$100/A respectively for each week planting was delayed after May 1. Studies with varied plant populations, conducted in 1994 demonstrated that growers may be better off with poor stands established early in the season than with good, replanted stands established three weeks later in the season.