

AO5003

The Wilke Project – An Analysis of Alternative Crop Rotations in the Intermediate Rainfall Area of Eastern Washington

By

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Introduction

This publication presents the results of a 4-year project evaluating the feasibility of increasing crop diversity and intensity using direct seed or no-till techniques. In 1997, several growers from Lincoln County, WA, traveled to Pierre, SD, to observe the no-till or direct seeding research at the South Dakota State University Dakota Lakes Research Station. This work has changed farming practices in areas of South and North Dakota. Farmers there who were formerly using a wheat-fallow rotation have widely adopted annual cropping with diverse rotations using direct seeding practices. These growers returned believing that direct seeding had great potential to prevent soil erosion; improve air, soil, and water quality; add flexibility and diversity to their crop rotations; expand control options for weed, disease, and insect pests; and increase farm profit.

Eastern Washington is very different from the Northern Great Plains, particularly in temperature and precipitation timing; therefore, it is important to demonstrate successful adaptation of no-till cropping systems in this region. This group of growers proposed a public-private research project modeled after the Dakota Lakes Research Station in Pierre, SD. The main site chosen was the 350-acre Wilke farm located near Davenport deeded to Washington State University for research with satellite locations on grower farms. A number of cooperators and collaborators from both the public and private sectors developed cropping plans and provided land, labor or equipment, products, or financial support to complete the project.

The objectives of the project were: (a) demonstrate and extend adoption of diverse crop rotations in direct seed systems that promote natural resource stewardship through reduction of soil erosion by wind and water, (b) diversify crop rotations grown in the intermediate rainfall areas of the Pacific Northwest, and (c) implement integrated pest management practices under direct seeding conditions.