IMPACT
University of Idaho Extension

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Northwest Direct Seed Case Study Series

The Situation

Direct seeding—planting and fertilizing directly into the previous crop's stubble in one or two passes without prior tillage—can provide a "Win-Win" opportunity for both growers and the public through the potential for reduced production costs, improved soil productivity and water storage that can result in a higher potential yields and profitability, and improved protection and enhancement of soil, water and air quality. While direct seeding is widely accepted as the most effective means of preventing cropland soil erosion, grower concerns over potential financial risks in the transition have restricted the adoption of direct-seed systems in the region.

Many innovative Northwest growers have implemented successful direct-seed systems. They provide an important information resource for other growers and ag advisers. By integrating their own ingenuity and experimentation with university research findings, many of these growers have ten or more years of direct-seeding experience. This "working knowledge" of conservation tillage systems can provide invaluable guidance to growers who are considering adopting direct seed systems on their own farms. Although many innovative direct-seed growers give selflessly of their time, time limitations and costs limit the individual growers ability to educate others.

Our Response

A project was initiated in 1998 to enhance Northwest grower adaptation of direct seeding through the development of grower direct seed case study publications in a PNW Extension bulletin series. The objective was to increase access to the knowledge and experiences of established direct seed growers in the region.

Program Outcomes

A team of WSU, UI and OSU Extension Specialists and a USDA-NRCS collaborator received a USDA/CSREES Sustainable Agriculture Research and Education (SARE) Program grant in 1997. This SARE grant, plus a supplemental 1999 grant through the USDA/CSREES Solutions To Environmental and Economics Problems (STEEP) program in the PNW, allowed the development of 16 full-color publications with a press run of 3,000 each.

Sixteen growers were featured in the new PNW Extension publication series titled "Direct Seeding in the Inland Northwest." Case studies featured a single farm operation and included:

- How the grower(s) started direct seeding, and lessons they learned
- Description of their current direct seeding system including crops and rotations, residue management, weed, disease and insect control, fertility management and fertilizer application, and seeding strategies
- Description and evaluation of the drills they are using
- Primary benefits and challenges of direct seeding seen by the growers
- Advice for growers new to direct seeding
- Economic summary (when available).

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Impacts – More than 20,000 copies of Direct Seed Case Studieshave been distributed to NW growers and ag advisers The publications are available through county Extension offices or the state Extension publications offices in Idaho (208-885-7982), Oregon (541-737-2513) and Washington (800-723-1763). There are also accessible for viewing and printing in PDF format http://pnwsteep.wsu.edu.

The series was selected for a Certificate of Excellence in Extension Publications in the 2001 American Society of Agronomy Educational Materials Awards Program.

Cooperators and Co-Sponsors

USDA-CSREES PNW STEEP (Solutions To Environmental and Economic Problems) conservation tillage systems research and education program
USDA-CSREES Western Region SARE (Sustainable Agriculture and Education) program
Tim Fiez, former WSU Extension Soils Specialist, Pullman
Don Wysocki, OSU Extension Soil Scientist, Pendleton
Dennis Roe, USDA-NRCS Resource Conservationist
Ellen Mallory, former WSU Project Coordinator/Lead Author

The Future

Direct seed cropping systems are relatively new and rapidly evolving farming systems in this region and around the world. As the adoption of direct seed system increases in the Northwest, there will be an increasing need for access to the knowledge and experiences of direct seed growers to support growers and Ag advisers new to direct seed systems—to provide some practical guidance in the transition. The publications, print copies and the Web access, will continue to provide an important resource on management strategies for direct seeding into the future.

For More Information

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