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**The Spokane County Direct Seeding Project (2001 to 2003):
An On-Farm Project To Answer Grower Questions About Transitioning To
Direct Seeding**

By

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Introduction

The Spokane County Direct Seeding Project was a 3-year project (2001–2003) funded by a grant from USDA-SARE (Sustainable Agriculture Research and Education).

Southern Spokane County is a unique part of eastern Washington; it is part of the Palouse, yet colder than the Pullman area and with a climate suitable for Kentucky bluegrass production. Growers in the annual cropping region (18 to 22 inches precipitation) identified residue management as a primary challenge to successfully adopting direct seeding. Seeding through heavy residue can be tough in the fall, and especially in the spring when thick winter wheat residue tends to keep the soil cold and wet.

The Spokane County growers participating in this direct seeding project decided to identify specific questions they wanted answered, and designed their own trials to solve them. Not surprisingly, most of the questions related to residue management.

1. Larry Tee (Latah) compared different stubble heights for direct seeding into heavy residue. He was working on the theory that one should not have seeding problems if the height of the standing stubble was less than the distance between the rows (determined by one's drill).
2. David Ostheller (Fairfield) tested 3 residue management treatments on winter wheat stubble in preparation for direct seeding the following spring: (1) mowing, (2) fall chisel rip plus spring harrowing, and (3) standing stubble.
3. Randy and Jeff Emtman (Rockford) had been successful at taking out bluegrass stands by direct seeding oats into them after applying Roundup™. However, they weren't always able to achieve an acceptable test weight on the oats, so they were looking at a fall fertilizer regime that would enable them to achieve adequate oat test weight while allowing them the flexibility to keep the grass stand in if it looked good in the spring.
4. Glenn and Bryan Dobbins (Four Lakes) tested a commercial residue digester called Biocat™, made by Bioburst 'n Grow. The product was not a microbial solution, but a nutrient mix that stimulates the growth of microbes found naturally in the soil. They applied Biocat™ to residue following harvest,

and studied its effect on stand establishment and yield of direct seeded fall and spring cereal crops. This study was funded in part by Bioburst 'n Grow.

5. Paul and Jake Gross (Deep Creek) tested a late fall rotary subsoil treatment for its potential to improve water infiltration into the soil and boost winter wheat yield under direct seeding.

Cooperators on the project were WSU Extension, NRCS, and the Spokane County Conservation District. The farmers designed the trials to answer a specific question, with aid from Extension. They used their own farm equipment to seed, spray, and harvest the trials, which were all in on-farm testing dimensions; each plot was about 40 feet by 300 to 1,000 feet long. There were 3 to 4 replications of each treatment in a trial, and the growers repeated the trials for 3 seasons.

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