

Diesel Emission Reduction Program

Helping farmers reduce diesel emissions



Washington farmers reduce high fuel costs through no-till direct seeding

Diesel Emission Reductions

The Diesel Emission Reduction Program helped twenty-one Eastern Washington farmers convert to no-till direct seeding from conventional tillage practices. No-till and direct seeding operations place seed and fertilizer into the residue of the previous crop in only three or four field operations with minimal disturbance of the soil. In contrast, conventional farming practices can require up to nine trips around the field to prepare and plant the soil.

The Diesel Emission Reduction Program offered producers an incentive of \$4 per acre of land converted to no-till direct seeding. This funding helped these producers make the switch from conventional tillage, and also educated producers about the benefits of no-till direct seeding.

Air Quality Benefits

By reducing the diesel fuel, these farmers will help reduce harmful air pollutants created from burning diesel. These emissions are nitrogen oxides, sulfur oxides, carbon monoxide, particulate matter, volatile organics, and carbon dioxide.

Other Program Benefits

In addition to reducing fuel cost, labor, tractor runtime and machinery wear, no-till direct seeding helps reduce soil erosion and soil compaction while increasing moisture and organic matter. The practice also helps protect water quality through reduced runoff of sediments and nutrients.

Funding

United States Environmental Protection Agency, Region 9 & 10
Total Program Cost: \$100,000

Program Implementers

- Upper Columbia Resource Conservation and Development Council
- Blue Mountain Resource Conservation and Development Council
- EnSave, Inc.

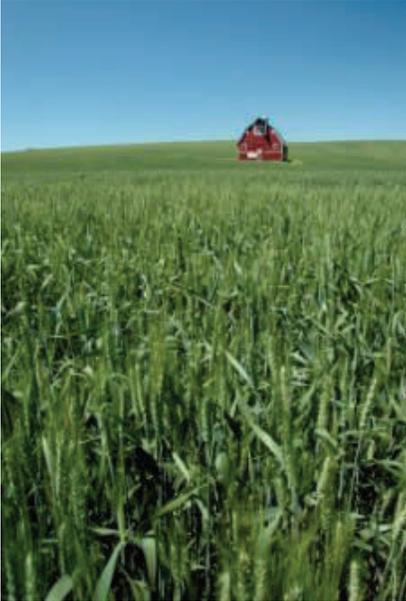
Program Partners

Spokane County Conservation District, Palouse Conservation District, Palouse-Rock Lake Conservation District, Pine Creek Conservation District, Whitman Conservation District, Asotin County Conservation District, Columbia Conservation District, Pomeroy Conservation District, Walla Walla County Conservation District, and the Washington Department of Ecology.



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One Farmer's Experience



"Why wouldn't I invest in direct-seed equipment with this kind of support?"
 ~ Scot Anderson, Wilscot Farm,
 Reardan, Washington ~

"Eastern Washington growers are fortunate to be among a few groups nationwide selected to receive this EPA grant money. It really speaks to how our local growers are working hard to be good stewards of the land." ~ Gerald Scheele,
 Upper Columbia RC&D Council ~



Scot Anderson next to his direct-seed drill

Saving fuel and helping the environment: a portrait of Wilscot Farms

Scot Anderson of Wilscot Farms is a third-generation farmer in the Reardan, Washington area. Until this spring Scot has farmed using conventional tillage equipment to raise his grain crops.

That all changed this past winter. "Government programs are offering cost-share options," says Scot, "The local Conservation District has a low-interest loan program and the Upper Columbia RC&D Council is offering cost-share to convert additional acres to no-till/ direct seeding. Why wouldn't I invest in direct-seed equipment with this kind of support?"

While Scot and his family place a tremendous value on the lifestyle farming provides, Scot is quick to point out that "I farm to live, not live to farm." He explains that while the values of hard work and family are a big part of farming, he needs to treat his farm like a business, and be on the lookout for opportunities to reduce operating costs and improve. "Change can be hard," Scot admits, "But it's necessary to survive in today's economy."

By converting to no-till direct seeding, Scot saw an immediate reduction in fuel usage, and saved over 200 hours of time in the spring planting alone. This extra time has enabled him to spend more time with his family and attend to other tasks around the farm. Assuming a diesel cost of \$2.60 per gallon, he stands to save about \$9,000 per year on his fuel costs alone.

Estimated Savings for Wilscot Farms' Fall and Spring Planting of 1,250 acres

	Conventional	No-Till	Savings
Gallons of diesel fuel used	5,178	1,703	3,475 gallons
Gallons of diesel fuel used per acre	4.14	1.36	2.78 gallons per acre
Tractor time (hours)	433	116	317 hours
Labor cost for crop preparation (\$12/hours) ¹	\$5,196	\$1,392	\$3,804
Diesel Fuel Cost (\$2.60/gallon) ²	\$13,463	\$4,428	\$9,035

¹Source: Washington State Employment Security Department, 1999 (figures adjusted for inflation)
²Energy Information Administration, State Energy Profile for Washington, April 2007 (taxes added)