



Soil scientist Stewart Wuest gestures to the varying heights off wheat growth in a test plot at Columbia Plateau Conservation Research Center outside of Mission.

EO file photo

Soil scientist to discuss benefits of no-till farming

By **GEORGE PLAVERN**
EO Media Group

Every drop of rain is precious for wheat farmers in arid Eastern Oregon.

Switching to no-till farming could help make the most of limited moisture while increasing yield, according to one soil scientist with the federal Agricultural Research Service.

Stewart Wuest, researcher with the Columbia Plateau Conservation Research Center in Pendleton, will discuss the benefits of no-till and reduced till farming during a presentation Thursday, Dec. 3 at the 42nd annual Hermiston Farm Fair.

By leaving more plant residue on the soil surface, Wuest said water has a better chance to soak into the ground before it is lost to evaporation. Reducing tillage also protects against erosion, maintaining nutrient-rich soil in the farmer's fields.

Wuest will present data from his project that shows reduced till has a measurable benefit on yield at a time when drought has hit farmers hard in Umatilla and Morrow counties.

"It looks like it's helping yields measurably," Wuest said. "How much will depend year to year."

Three straight years of below-average rainfall is taking its toll on local wheat fields. The National Agricultural Statistics Service reports Umatilla and Morrow county growers harvested 17.816 million bushels of winter wheat in 2014, down from 21.7 million bushels in 2012. Farmers anticipated yields could be down by as much as half this year.

No-till fields seem to respond better in drier years, Wuest said, because they are able retain the most water to offset drought-related stress.

"Where you're doing less tillage leaves more residue on the surface, and those rains will be more beneficial," he said.

The challenge is in the timing of planting season for the region's predominant crop-fallow field rotation. When farmers till their fields, it allows them to tap into water stored underground and plant earlier in the fall — ideally in September.

With no-till farming, growers can't plant until the first big rain of the fall, which this year didn't come until late October. That's one less month to raise an early stand of wheat before winter arrives.

"No-tillers have found they have to seed later, but those first rains that come are very effective," he said. "That's the question of which is better: get your crop seeded early, or wait for rain and have more moisture later on in the fall."

Wuest said growers are gradually beginning to experiment more with no-till and reduced till. He wants people who attend his presentation to take away an understanding of what the practice has to offer.

"I'd like them to understand it's worth their effort to minimize till and live with more residue at the surface. It will be a big payoff," he said.

Wuest is the lead researcher on the no-till project in Pendleton, which this year had its neck on the chopping block as funding was uncertain. The Columbia Plateau Conservation Research Center was proposed to have its budget slashed by nearly half as money would be re-routed to other initiatives in the ARS.

Recently, station director Dan Long said the situation appears to have been resolved in the budget deal recently passed by Congress. He said lobbying from the Oregon Wheat Growers League, as well as support from Democratic Sens. Ron Wyden, Jeff Merkley and Republican Rep. Greg Walden, helped to protect funding for the center.

Wuest's presentation is scheduled for 8 a.m. at the Farm Fair, during the morning cereal session on the main stage at the Hermiston Conference Center.

Contact George Plaven at gplaven@eastoregonian.com or 541-966-0825.

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— Stewart Wuest, soil research scientist



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