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No Till conference cultivates new ideas

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Approximately 185 producers from throughout the region committed themselves to two days of learning about the the concept and practices of non tillage farming. The No-Till On the Plains Winter Meeting was held last week at the Gering Civic Center. From the panel of ten expert speakers, one message was repeatedly cultivated into the minds of producers—“save your moisture, enhance your soil.”

“I know farming is tough out here in this arid climate with less than perfect soils. So you have two choices, adapt...or get out,” said keynote speaker Dwayne Beck, research manager for Dakota Lakes Research Farm in Pierre, S.D. “You’ve got to learn to use what moisture you have and change your farming practices to enhance your soils.”

Beck’s often pointed remarks set the tone for the conference, which emphasized the importance of leaving the tillage equipment in the shed. The end payoff, said most speakers, is water, soil, fuel and input cost savings, increased yields and a better soil profile.

“This is something we need to get more people onto,” said Alliance area producer and Panhandle No-Till Educator Mark Watson. “Continuous no till is an applied practice in Kansas, Colorado, North and South Dakota, but we’re just catching on here. We’ve got some habits to break.”

According to information presented at the two-day conference, continuous no-till progresses through four phases. Phase One is initialization, which occurs in the first five years where farming without tillage begins to cause the transformation from low soil organic matter and low residues to regenerating soil structure and increasing microbial activity. This stage requires the application of additional nitrogen. Phase Two is transition, in which soil organic matter accumulates, residues increase, soil aggregation and soil microbial activity elevates. Phase Three is consolidation, or the strengthening, solidification and/or fortification to increase the amount of carbon in the soil. In Phase three, the soil has greater nutrient cycling and it usually takes between 11 to 20 years of continuous no till to achieve. Finally, in Phase Four comes the maintenance of the soil. The soil is well preserved with continuous flow of nitrogen, carbon and moisture and high residues continue to feed the soil’s organic matter.

A good illustration of this four-phase process was provided by retired Kansas state NRCS conservation agronomist Bud Davis with his rainfall simulator. His demonstration simulated a three-inch rainstorm and the benefits of crop residue for increased water infiltration. The basic concept is taken from nature itself; seeds germinate best in soils

that are rich in organic matter and have good subsoil moisture, not atop barren or tilled soil.

Speakers and researchers at the conference stressed that getting onto the concept of no till takes a great deal of education and understanding. Dr. Gary Hergert, agronomy and soils specialist at the University of Nebraska-Lincoln's Panhandle Research and Extension Center in Scottsbluff, told producers that research needs to focus on adapting cropping, residue management, clutural practices and irrigation management for the Panhandle. Demonstrations need to show local producers what works; education needs to take place on how to convert from conventional tillage to no tillage practices and then the successes need to be promoted so that more producers can confidently adopt no till practices.

"This is not the corn belt," Hergert told his audience. "We've go to learn to adapt to our climate, growing season, soils and shortage of water."

No- Till On the Plains, Inc. program coordinator Jana Lindley of Wamego, Kan. said she was very pleased with the attendance at the Gering conference and the interest it generated among area producers, event sponsors and exhibitors.

No-Till On the Plains is a regional, producer-run organization that reaches over 3,000 farmers annually, providing well-researched and practical information on continuous no till. The group will hold its annual Winter Conference Jan. 29-30 in Salina, KS. More information about No-Till On the Plains and its upcoming events is posted at www.notill.org.

Locally, the Northwest Nebraska No-Till Conference will be held Dec. 4 in Rushville. Call (308) 432-6190 for more information.

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