

## **Soil Health Conference speaker shares many benefits of interseeding**

*By Lura Roti for South Dakota Soil Health Coalition*

Mechanic is among the many hats most farmers and ranchers wear.

“Every farmer and rancher modifies equipment – it’s the nature of the game,” explained Paul Winkler, a Newell, S.D., rancher.

Always eager to learn more, Winkler was among many who tuned in to Loran Steinlage’s South Dakota Soil Health Coalition presentation, “Life Beyond Tech Support,” during the organization’s 2021 Virtual Soil Health Conference January 6-7.

“Every farm or ranch is different, but the concepts can be applied,” Winkler said. “He gave a lot of practical information.”

A second-generation West Union, Iowa, farmer, Steinlage has always relied on his mechanical wit and abilities. But when he began embracing soil health practices, like interseeding of cover crops and relay cropping – modifying and redesigning equipment became essential to field success.

“Figuring out key pieces of equipment has opened doors for us,” said Steinlage, who – together with his family – farms 750 acres of extremely diverse crops. Recognized by machinery manufacturers for his talents, Steinlage also works in equipment design.

Throughout his presentation, Steinlage shared many images of modified equipment, but he focused most of the presentation on the why. He shared how soil health practices beyond no-till, like interseeding cover crops and companion crops, improved his overall farm and became the motivation behind many of his equipment modifications.

Steinlage began focusing on interseeding and relay cropping when he realized “weeds enjoy soil disturbance.” From that point forward, he added interseeding to existing no-till practices. Reducing weed pressure through interseeding has allowed him to dramatically reduce the use of herbicides and pesticides. And because of the soil health benefits from companion cropping, he has also reduced nutrient inputs. “Interseeding is a gateway drug. It opened doors for me...as soon as we saw success, we started scaling up,” he said.

Steinlage shared how interseeding helps control pests in two ways.

First, fields planted to a diversity of crops attract a greater number of beneficial insects. During his presentation he shared this example. “I had interseeded soybeans with buckwheat, intent on harvesting as a companion crop, and there were sweat bees eating pregnant soybean aphids.”

Results of field scouting showed no aphid larvae. “I never sprayed and got a food grade premium.”

In some cases, Steinlage said interseeding can create “the flypaper effect. As bugs come into a field to attack, the beauty of interseeding is they are always looking for the easy score, and most often, the cover crop is the easy score.”

When deciding what plants to interseed, Steinlage suggests looking to nature for guidance. “Pay attention to nature. It will tell you what you need to be interseeding. Go around to your native pasture and see what thrives,” he said.

Additional interseeding tips Steinlage also shared are:

- Planting timing: Look at the weather forecast more than stage of growth. “If we are in a cool, dry growing season, we take the time and wait. If we are in a hot, humid growing season, we push ahead a bit.”
- Roll crimp, don’t shred: “When we roll something, we create a mat. Shredding breaks down too quickly.”
- What to plant: If planting into a corn-on-corn field, Steinlage focuses on legumes and brassica mixes. If planting into a corn-going-into-soybean field, he focuses on grasses. And if he’s planting into a soybeans-going-into-corn field, he plants winter wheat and barley.
- Uniformity is key: “Pay attention to details.”

Twin Brooks farmer David Kruger can relate to the challenge of getting details right when interseeding. Since 2018, Kruger has participated in an interseeding study for the South Dakota Soil Health Coalition.

“Plant spacing in 60-inch corn is more crucial than 30-inch. This has been a lot of my problem. My problem is a normal planter can’t plant accurate enough at that high of a population.”

Kruger appreciated Steinlage’s talk. He says learning from others focused on soil health when managing their acres gives him not only new information, but it often confirms possible solutions.

“Hearing someone else confirm the root of an issue gives me more confidence to invest in the solution. For me to go and get a different corn planter to get accuracy, which I may need to do if I continue with 60-inch corn, may mean I need to spend, \$80,000 to \$120,000,” Kruger explained. “That information helps me determine whether I feel that is a wise investment or is there a better way to accomplish the goals we are trying to accomplish with 60-inch corn.”

Connecting growers like Kruger and Winkler with other growers, soil health resources and information is a mission of the SDSHC and its annual conference, SDSHC Coordinator Cindy Zenk explained.

“Farmers and ranchers have a strong desire to make their land better,” Zenk said. “Like all of us, they are busy. So, we work to maximize their time through this annual two-day conference which brings many soil health experts and resources together.”

To connect with SDSHC resources, visit the organization's website: [www.sdsoilhealthcoalition.org](http://www.sdsoilhealthcoalition.org). The website provides access to many online resources and staff who are available to work one-on-one with those eager to learn more.



*Courtesy image*

**Twin Brooks farmer David Kruger was among many who tuned in for the South Dakota Soil Health Coalition 2021 Virtual Convention January 6-7.**

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*Courtesy image*

**West Union, Iowa, farmer Loran Steinlage was among many soil health experts who presented during the SD Soil Health Coalition's 2021 Virtual Soil Health Conference January 6-7.**

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*Courtesy photo*

**Paul Winkler, pictured here with his family, is a Newell, S.D., rancher. Always eager to learn more, Winkler was among many who tuned in to Loran Steinlage's presentation, "Life Beyond Tech Support," during the organization's 2021 Virtual Soil Health Conference January 6-7.**

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