Focus on Healthy Soil Helps 3rd Generation Operation withstand Drought Periods

With average annual rainfall around 17-inches and soil types ranging from sandy loam to clay, there’s little question as to why Shannon County, South Dakota is not known as a mecca for crop production. However, thanks to diligent land management with special attention to wind and water erosion, ranchers like Troy Roth of Batesland have been paving the road to success.

“We began no-till farming in 1987,” Roth said. “Moving that direction was a necessity for soil health and production simply because of our area’s limited moisture. The benefits of no-till alone are great.

We used to run below one percent with organic matter. Now, we’re definitely above two and often closer to three.”

Roth and his wife Jackie are the third generation to operate in the Batesland, area. The couple’s three children, who are all building careers in other areas, also take pride in their family operation and work to help their parents carry the farming/ranching tradition long into the future.
“The kids help out here in many ways,” the R5 Incorporated owner said. “They stay on top of what’s happening in markets and such. They provide great input on what they’re seeing elsewhere, and I can count on them to help with the work it takes to make improvements around the ranch.”

Rising inputs, declining prices, rail shortages, and unpredictable weather present ranchers like Roth with serious challenges. Even finding workable rotations for the typically low production area is difficult. However, Roth sees progress and promise.

“There are lots of challenges, but I’m really optimistic about what can be done,” Roth said. “We are conservation-minded because we want the land to be productive for generations to come. Our local NRCS team has been a great resource for advice and guidance.”

With the future in mind, Roth plants hundreds of trees each year and has been working on tree grove renovations through NRCS programs like the Conservation Stewardship Program (CSP).

“The reality is that our area in southwestern South Dakota is off the radar for many people,” Sandy Huber, NRCS District Conservationist based out of Martin, SD, said. “Producers like Troy are making great strides to get the most out of the land while doing what’s best for the long-term.”

Roth agrees and sites the difficulty in finding profitable combinations as a motivation for continual learning.

“Companies develop products for farmers in the east because their yields and profit levels require it,” Roth said. “I understand it, but as a producer in this area, I have to work extra hard to stay aware of cost-effective chemicals and crop varieties. The reality of low moisture areas with challenging soils means we will never be profitable doing what farmers in the east do.”

Because Roth understands his land’s capacity to produce and believes in conservation for the long-term, he has found success with livestock, corn, wheat, millet, and hay. Through the CSP program, he looks forward to utilizing a cover crop cocktail and thinks there’s promise for nitrogen levels by integrating field peas.

“I’m not an innovator,” Roth said. “I use what I see working, what I see working here in our area. More than anything, I value continued education and taking care of what we have.”
Profiles in Soil Health

Troy Roth, South Dakota

Well-managed rangeland is critical for us.
- Troy Roth, Batesland, SD

As Roth has focused on improvements for crop and livestock production, he has also seen a wonderful benefit with area wildlife.

"The enhancements we’ve made have been really great for deer and birds. Conservation is important, and hunting has become a nice way to diversify our ag operation," Roth said.

Roth maintains a humility natural to ranchers in western South Dakota; however, as a partner, District Conservationist Huber knows Roth is making real innovations in the area.

"Troy is a leader down here," Huber said. "He takes time to learn about new practices, and he’s very open to ways we can help him accomplish his goals. He credits this year’s healthy soils, pasture land and crop production to moisture, and while we all know rain is critical, I can tell you that Troy’s mindset for conservation is impressive."

Roth used several enhancements of the Conservation Stewardship Program (CSP) to improve the health of his resources and also to restore shelter belts on his property. The grove pictured in the distance has seen significant damage over the years due to harsh weather, etc. The fall 2014 brought new life to the grove as it was rebuilt to provide cattle and wildlife protection.

While crop production is important to the ranch’s business model, livestock production is the Roth family’s primary focus. Roth runs a commercial cow herd and backgrounds his calves to about 600-pounds.

“Well-managed rangeland is critical for us," Roth said. "Hail in 2012 and 2013 was extremely hard on our winter pastures especially. But, we were able to adjust our rotations and rations to allow for more rest. Of course, 2014 has been a wet year for us, so that moisture has made a world of difference for range recovery.”

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