



Bringing Soil Back to Life



CHI ST. ALEXIUS HEALTH DICKINSON · 2016-9-30

As you drive west past CHI St. Alexius Health in Dickinson, you will notice small plots of

corn standing where last year there was only dust and tumbleweeds. Thanks to a partnership between CHI St. Alexius and the NDSU Dickinson Research Extension Center (DREC), the acreage directly west of the hospital is being brought back to life. When he realized the hospital did not have the equipment needed to maintain the land, Dennis Cannon, vice president of facilities at CHI St. Alexius, reached out to Dr. Kris Ringwall and Ryan Buetow of the DREC for a solution to control weed growth and make it presentable.

The staff at DREC was enthusiastic about what they could do for—and learn from—this portion of property. This would be a perfect opportunity to study soil restoration through best practices management and cover crops.

Buetow, who is an NDSU Area Extension Specialist in Cropping Systems, explains, “When the land was first developed, it entailed ripping up the topsoil. That left the ground with no soil structure and no way for it to hold moisture – it was not healthy soil.”

Buetow’s team planted a number of cover crops this spring, from corn to wheat to turnips and radishes, using a combination of tilled and no-tillage treatments. “Planting cover crops helps put nutrients back in the soil. Roots growing down loosens the soil and lets moisture in.”

Most crops did not do as well as he hoped this year, citing the current poor soil structure, dryer weather, and herbicide residue from sprayings 3-4 years ago. The wheat

only grew one foot, and so was cut down. The corn also did not take off as Buetow had envisioned.

He laughs, “Please don’t judge my farming ability by this corn. This isn’t how corn is supposed to look. We initially wanted to turn it into a corn maze, but it didn’t get tall enough this year.”

He adds, “We have a vision of doing a corn maze next year as well as trying to grow some pumpkins and make a community day out here to teach and explore.”

Along with making the land usable and more visually appealing, DREC is conducting a dust study on the property. “When ground cover and soil structure aren’t present, more soil dust is released into the air because there is nothing protecting the soil. There can be possible community health implications, if there is enough dust in the air we breathe,” Buetow states.

Kris Ringwall explains, “What DREC is studying on this plot of land can be applied many places in our region today. We are working on strategies to recapture land that is disrupted due to construction work, pipelines, and general oilfield activity.”

When asked if this soil can be made usable again, Buetow responds, “Oh yes, there is hope. I’ve noticed more wildlife out here. More bees. The turnips and radishes actually did very well.”

Buetow smiles, “Soil is not just dirt – it’s a living community, with bacteria and fungi working together to help plants grow. Nitrogen is brought into soil by plants like legumes. It’s exciting.”

“Our goal is to bring this soil back to life.”

Learn more at the DREC’s Soil Health Restoration Workshop on Thursday, October 13th from 1:30pm – 3:00pm on the property west of CHI St. Alexius Health Dickinson. The program is free and open to the public.

Story and photos: Stephanie Fong











