Manitowoc County Farmers Protect Soil and Water Quality by Using Cover Crops

July 2023

By: Cheyenne Behnke-Manitowoc County Soil and Water Conservation Department

Manitowoc County farmers own and manage 230,735 acres, or 61%, of the county's land base. The practices they implement on their fields can greatly impact the surrounding environment. As stewards of the land, many farmers in Manitowoc County are utilizing practices that improve soil and water quality. One practice that has been gaining momentum with farmers in the county is planting cover crops.

What is a Cover Crop?

A cover crop is a type of crop farmers grow in between their usual planting sequence to improve soil and water quality. Cover crops range from a single species like clover or rye to multi-way mixes of legumes, grasses brasicas and more. There are a number of different crops that can be planted as a cover crop depending on the farmer's goals and needs.

Why do farmers use Cover Crops?

- **To improve soil fertility**: Cover crops take up excess nutrients in the soil and keep them in the root zone where plants can access them, reducing the need for fertilizer usage.
- To increase organic matter: Organic matter in soil is very important to farmers. It provides the living, breathing, filtering part of soil. High crop yields depend on a healthy, organic topsoil. Organic matter is made up of plant residues at different stages of decomposition.
- **To increase carbon storage**: When a farmer increases the soil's organic matter, they also increase the amount of carbon that can be stored, which can offset the rise in carbon dioxide levels in the atmosphere.
- **To moderate temperature**: Cover crops moderate temperature by shielding the soil from direct sunlight.
- **To help hold soil in place**: Living roots and plant residue in the field help to slow the speed and force of water running down fields, reducing the amount of soil that is lost due to rain events.
- **To improve water quality**: By keeping soil in place, there is less soil and nutrient loss to rivers and lakes, therefore improving water quality.
- To naturally control pests, weeds, and diseases: Cover crops provide diversity during the growing season to reduce insects, weeds, and disease. This may reduce the need for herbicide or pesticide usage.

Manitowoc County farmers share their experience

As a result of the known benefits from cover cropping, an increasing number of Manitowoc County farmers are shifting gears to incorporate this practice into their cropping systems. One producer in Manitowoc County who is making this shift shared their personal experiences:

Dan Meyer, owner and operator of Dan Meyer Farms in Schleswig, has been using a combination of cover crops and no-till practices on his cropland for years and is noticing a difference in his soil and production. Meyer states that, "The fields we have had in no-till for 10 years or longer are now our most productive". Meyer also noted that his soil structure is improving as a result of using cover crops with no-till in the crop rotation: "The more we do no-till and cover crops the better our soil environment becomes," Meyer stated. The improved soil structure on his fields helps to keep soil in place and is most visible during spring storms: "The best time to see the real benefit of no till and cover crops is after a spring storm," Meyer continued. A wet fall season won't stop Meyer from harvesting either! "We keep harvesting in spite of wet conditions because of great soil structure". Meyer concludes his exciting cover crop and no-till experience by saying: "Every year, we learn a little more about the benefits of no- till and cover crops."

Dan along with many other farmers have volunteered to participate in a Cover Crop Tour in Manitowoc County.

Be a part of the movement!!

Manitowoc County Soil and Water Conservation Department can help connect farmers to resources available for cover cropping. If you, or anyone you know, is interested in planting cover crops to improve soil and water quality, please contact our office at 920-683-4183. We would be glad to help with cost-sharing and/or planning. If you would like more information on soil health or cover crops, please visit our website at

www.manitowoccountywi.gov and search "cover crops" in the search field.