

MAKING A DIFFERENCE

NDSU EXTENSION SERVICE

NORTH DAKOTA STATE UNIVERSITY

Can Cover Crops Successfully Grow in Cavalier County?

The Situation

Cover crops are versatile; they can use excess soil water in case of a wet fall and can improve soil water holding capacity under dry weather. They are instrumental for improving soil structure and drainage, rehabilitating soil microbial community and building soil organic matter. If planted timely, cover crop benefits outweigh the seeding costs. However, they need time in order to produce optimum above and below the ground growth from the time of planting until it freezes. With a shorter growing season and cooler temperatures, it is challenging to successfully grow cover crops in Cavalier County after harvest.

Extension Response

With a strong emphasis on practices that improve soil health, the NDSU Langdon Research Extension Center formed a close working relationship with Cavalier County Extension, Cavalier County Soil Conservation District and Langdon Natural Resources Conservation Service. In order to demonstrate cover crop benefits, a half-day workshop was held in July. That was followed up by the 4th Annual Cavalier County Soil Health Tour on October 12, 2017. Tour included visits of four cover crop demonstrations, indoor presentations, hands-on-demos and no-till seeding demonstrations.

Cover crop demonstrations included:

- A perennial salt-tolerant grass mix on a saline-sodic area for hay,
- A water-use efficient and nitrogen fixing mix after harvesting wheat and
- A salt-tolerant mix for grazing aerially broadcasted into standing corn.

Another site, belonging to a local producer, was planted with a water-use efficient and nitrogen fixing mix on prevent plant acres was also visited.

The key outcomes were:

- How to select a cover crop mix based on desired objectives, land suitability (salt and sodium levels) and the next crop.
- Considering the short growing season of Cavalier County, for best results, cover crops should be planted by August 15.

Impacts

A total of 45 people attended the workshop and soil health tour. Responses from 15 participants are shared.

- 71% of the participants stated an increase in their understanding regarding the benefits of cover crops
- 75% stated an increase in their knowledge of different aspects of soil health after attending the workshop
- 60% of the participants stated that they would do soil analysis or reduce tillage or plant buffer strips or incorporate cover crops in their farming operation or consulting business



Feedback

- *Following the workshop two producers showed interest in growing cover crops in their fields and one of them planted a perennial salt tolerant cover crop mixture.*

Public Value Statement

North Dakota's greatest natural resource is its land and soil. Cover crops will improve soil health and land productivity for future generations.

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