

STONEY CREEK – NO TILLAGE FARM

Presenter

Stoney Creek Farm

Description

Weather has turned wet during the past four years. Farmers have received two to three times the average moisture and they have seen more extremes in temperature and weather.

The effects of this on the landscape is a massive increase in water erosion and wind erosion. Water infiltration rates on the average farm fields have dropped significantly, causing run-off, creek/riverbank destabilization, and flooding.

On Stoney Creek farm, farmers operate a 100% no-till system with increased diversity of cropping enterprise through the addition of cover-crops through inter-seeding and planting after the harvest of row crops. Cattle are raised on pasture and on these cover-crops and are no longer kept in confinement. With increased water infiltration and increased soil organic matter on pastures and in cropping fields, the health of crops and animals in Stoney Creek has improved immensely. Increased soil health has allowed farmers to decrease the rate of use of synthetic fertilizers and they now use much less pesticides than before.

They also now have soil structure which allows them to be on the fields after rain events without leaving tracks or ruts while their neighbours sometime wait days to get back out on their fields. This can affect profitability. They no longer need treated seed technologies because the system has become healed. They also no longer spray any insecticide or fungicide on any part of the farm because the health of plants has been restored through improved soil health.

Results

Farmers in Stoney Creek have seen many improvements:

- Improved soil structure eliminating tillage;
- Increased rainfall infiltration (8-12" per hour);
- Increased soil organic matter (3-4% in 10 years);
- Increased soil health;
- Increased livestock health and decreased antibiotic use for livestock;
- Increased nutrient density of livestock feed raised on the farm.

They have seen decreased water and wind erosion because they keep soil covered and try to keep a living root in the soil for as long as possible each season. They have also seen a massive increase in wildlife of all forms on the farm. The best improvement is increased profits because they have reduced input costs of seeds, chemicals, and fertilizers, while they have improved their own runoff/erosion.



Climate smartness

Helping reaching the goals of the three base cores of CSA, had also contributed to improve livestock wellbeing and increase biodiversity inside the farm.

Implementation of crop cover, soil and pastureland management practices have contributed mainly to climate vulnerability reduction, while feeding management practices and the reduction of the use of chemical fertilizers have helped on greenhouse gas reductions. All the practices implemented in this project contribute to increase the income and productivity of producers.

Additionally, it is recommended to include on this project the strengthening of climate information flows towards producers, as well as their empowerment regarding the use of such information, in order to ensure that producers continue with the implementation of CSA practices.

