

Ladies and gentlemen,

CarbonTerra, a wholly Canadian organization comprising of distinguished leaders in soil sciences globally. Our aim to establish a climate-friendly, carbon-neutral agricultural ecosystem that improves a farmer's return on investment in sustainable farming practices. Today, I want to address the vital topic of carbon sequestration and express my belief in Canada's potential to lead the way in driving change. Climate change poses significant challenges to our planet, impacting our environment, climate, and future.

Carbon sequestration plays a crucial role in combating climate change, with nature-based solutions like no-till farming being highly effective. No-till farming involves growing crops without disturbing the soil, resulting in numerous benefits such as reduced soil erosion, improved soil health and air quality, and increased water retention. Notably, no-till farming has the ability to sequester carbon by increasing soil organic matter. Conversely, tilling the soil releases carbon dioxide into the atmosphere, contributing to global warming.

Research indicates that no-till farming in the Canadian Prairie can sequester up to 1.5 tons of carbon per acre per year. Scaling up the adoption of no-till farming across the 153 million acres of annual crop land in three prairie provinces could have a significant impact, sequestering approximately 138 million tons of carbon annually. This amount of carbon sequestration is equivalent to the emissions of over 112.6 million gasoline-powered passenger vehicles for a year. The potential for carbon sequestration through no-till farming on Canadian crop lands is thus substantial.

Incentivizing sustainable practices through carbon credits is pivotal for enhancing the sustainability of our current systems and achieving climate goals. Carbon credits allow businesses and individuals to offset their carbon emissions by investing in projects that reduce greenhouse gas emissions. While carbon credits have played a role in various sectors, including agriculture, the current system does not fully recognize the contributions of no-till farming. Early adopters of no-till practices are disadvantaged due to the technical definition of additionality and permanence. To address this, Canada should lead by recognizing the contribution of early adopters of no-till farming and set an example globally.

Engagement in no-till carbon sequestration is not limited to producers alone; consumers also have a role to play. By supporting producers who implement sustainable farming practices like no-till farming, consumers can contribute to the adoption of these methods. Policymakers are urged to provide incentives and funding for producers who have already demonstrated the benefits of sustainable farming practices. This collaborative effort can drive the recognition of no-till farming with carbon credits, incentivizing its adoption, reducing greenhouse gas emissions, and mitigating climate change's effects. Ultimately, this approach benefits the environment, fosters a sustainable and profitable agricultural sector, and aids Canada in achieving its climate goals and promises.

Current Dilemma

Supporting and acknowledging early adopters of no-till farming through policy recognition is vital for encouraging more producers to adopt this sustainable agricultural practice. These pioneers have embraced sustainable farming methods that benefit both the environment and society. They have demonstrated long-lasting carbon stock stability, and scientific evidence affirms that there is always room for improvement.

To avoid putting early adopters at a disadvantage or penalizing them (I would like to mention that when I use the word penalize here it is referring to an unrewarded good husbandry that is being demonstrated as the forefront of Canadian farming) policy should refrain from indirect penalization through the absence of specific procedures. Historically, agricultural policies have often incentivized or penalized producers based on short-term outcomes, which can be detrimental to those who have invested considerable time, money, and resources in transitioning to sustainable practices like no-till farming.

Subjecting early adopters of no-till farming to a disadvantageous position or penalization can discourage other producers from embracing sustainable practices due to the fear of similar consequences in the future. It also creates an unfair situation for those who have already invested in sustainable farming practices and made significant contributions to reducing greenhouse gas emissions and mitigating the impacts of climate change.

Instead of disadvantaging or penalizing early adopters, policy should recognize and support them by offering incentives and funding to continue their adoption of sustainable practices. These incentives can take the form of tax breaks, grants, and subsidies that reward producers for implementing sustainable farming methods like no-till farming.

Additionally, policy should prioritize education and outreach efforts to promote the benefits of no-till farming and other sustainable practices. By increasing awareness among producers about the advantages of sustainable agriculture, more producers can be encouraged to adopt these practices.

It is crucial to emphasize the significance of policy recognition and support for early adopters of no-till farming in incentivizing broader adoption of sustainable farming practices. Rather than penalizing or disadvantaging these producers, policy should provide incentives and funding to acknowledge their contributions in reducing greenhouse gas emissions and mitigating climate change. Failing to recognize their efforts can negatively impact Canada's ability to effectively control greenhouse gas emissions.

The current approach, or rather the absence of a structured approach, is flawed as it fails to acknowledge the contributions of early adopters of no-till farming in reducing greenhouse gas emissions and mitigating the effects of climate change. It also overlooks the significant investments in time, money, and resources required to implement and maintain no-till farming practices.

Policy is The Issue

Policy revision is necessary to acknowledge the valuable contributions of early adopters of no-till farming to sustainable agriculture and carbon sequestration. Here are several reasons why policy should be altered to recognize these individuals:

- Encouraging wider adoption of sustainable practices: By acknowledging and rewarding the efforts of early adopters of no-till farming, policy can motivate other producers to transition towards sustainable farming practices. This not only benefits the environment but also fosters a more profitable and sustainable agricultural sector, enhancing Canada's competitiveness in the global market.
- Promoting mitigation of climate change: Scientific evidence demonstrates that no-till farming effectively sequesters carbon in the soil, thereby helping to mitigate the impacts of climate change. By recognizing early adopters of this method, policy can actively support initiatives aimed at reducing greenhouse gas emissions, mitigating climate change effects, and assisting Canada in achieving its climate goals.
- Supporting sustainable agriculture: No-till farming aligns with sustainable agricultural practices by conserving soil, minimizing erosion, and enhancing soil health. Policy recognition and support for early adopters can stimulate the promotion of sustainable agriculture, contribute to the development of resilient and sustainable food systems, and position Canada as a global leader in the agri-food sector.
- Addressing equity concerns: Recognizing early adopters of no-till farming helps address equity issues prevalent in the agricultural sector. Many of these early adopters are producers who have made significant investments of time, money, and resources in transitioning to sustainable farming practices. Policy recognition can foster a more equitable agricultural sector that acknowledges and rewards sustainable practices, thereby providing support to small-scale producers.

In conclusion, policy change is necessary to recognize the valuable contributions of early adopters of no-till farming to sustainable agriculture and carbon sequestration. Through recognition and support for these individuals, policy can incentivize broader adoption of sustainable practices, promote climate change mitigation, bolster sustainable agriculture, and address equity concerns within the agricultural sector.

Consequences

If early adopters of no-till farming, who make valuable contributions to sustainable agriculture and carbon sequestration, are not acknowledged and instead face disadvantages or penalties, several potential adverse outcomes may arise:

- **Discouragement of sustainable practices:** Without recognition for their efforts, early adopters of no-till farming may become demotivated and less likely to continue or expand their adoption of sustainable farming practices. This could result in a decrease in the number of producers utilizing no-till farming methods and a reduction in the amount of carbon sequestered in the soil.
- **Incentives for unsustainable practices:** Penalizing early adopters of no-till farming for their sustainable practices may incentivize other producers to persist with unsustainable tilling methods. This could lead to an increase in greenhouse gas emissions and a decline in soil health and fertility.
- **Creation of inequities in the agricultural sector:** Penalizing early adopters of no-till farming may result in disparities within the agricultural sector. Small-scale producers who have invested significant time, money, and resources in sustainable farming practices may be unfairly penalized, potentially concentrating power and resources in the hands of larger, established producers who are less inclined to adopt sustainable practices.
- **Impediment to climate change mitigation progress:** Neglecting to recognize and provide incentives for early adopters of no-till farming could hinder efforts to mitigate climate change. No-till farming has been demonstrated as an effective method for carbon sequestration in the soil. Without recognition and incentives for these early adopters, achieving targets for reducing greenhouse gas emissions may become more challenging.

In conclusion, the failure to acknowledge and penalize early adopters of no-till farming for their contributions to sustainable agriculture and carbon sequestration could have negative consequences. These include discouraging the adoption of sustainable practices, promoting unsustainable practices, creating inequities in the agricultural sector, and limiting progress in mitigating climate change.

Keep in mind the following:

- It is essential to ensure the competitiveness of Canadian producers on a global scale.
- Canadian producers should maintain their leadership in global food production and security.
- Improving soil health is necessary to enhance our competitive position and increase the capacity of soil to store carbon.

- We should continue reducing agricultural emissions by adopting low-carbon footprint methods like no-till farming.
- Implementing no-till farming can be costly, with equipment expenses reaching over \$1 million for specific machinery such as tractors and specialized planters. Therefore, it is crucial to find ways of recovering these costs.
- We should recognize and reward producers for their current sound farming practices and provide incentives for them to continue adopting sustainable regenerative agriculture practices rooted in scientific principles and agronomy.

To advance these objectives, we have partnered with Genesis Fertilizers, an organization representing thousands of producers. Through this collaboration, producers can actively participate in the value chain and decision-making processes related to manufacturing and utilizing fertilizer. The fertilizers produced can be managed using the 4R principles, offering the additional benefit of improving the carbon footprint of products through a cradle-to-cradle manufacturing process. At this point, I would like to invite Mr. Mann to provide his insights on this matter.