

MINIMIZING TILLAGE

Reducing tillage and soil disturbance have several benefits related to GHG mitigation. Tillage disrupts soil fungi that are important for soil structure, so reducing it can help to protect carbon stores and increase carbon sequestration. Minimal tillage or no-till also improves soil quality, promotes biodiversity in and around soil, reduces soil erosion and avoids soil compaction. Fuel use and cost is also reduced from fewer equipment passes across the field.

Implementation Tips

- Consult an agronomist or agrologist for tillage recommendations best suited for your soil management needs.
- Reduce tillage by selecting attachments that till at shallower depths and are applicable to your soil composition and field conditions.
- Reduce the number of tillage passes and minimize tillage operations up and down slopes.
- Try incorporating cover cropping as part of your weed management.

Resources

- **Factsheet:** proAction Environment Resources, Dairy Farmers of Canada (dfc-plc.info/MT1)
- **Website:** Soil Conservation Council of Canada (dfc-plc.info/MT2)
- **Research study:** Yanni, S.F., Laporte, A.D., Rajsic, P., Wagner-Riddle, C., Weersink, A., 2021. The environmental and economic efficacy of on-farm beneficial management practices for mitigating soil-related greenhouse gas emissions in Ontario, Canada. *Renewable Agriculture and Food Systems* 36, 307-320. (dfc-plc.info/MT3)

Benefits



Reduced GHG emissions



Carbon sequestration



Improved soil health



Increased resiliency to the effects of climate change



Enhanced biodiversity



Estimated return on investment
High



On-farm emission mitigation potential +++

