

Soil compaction

Damage



THE PROBLEM

When dealing with wet weather such as was seen in the Fall of 2021, a lot of good work to build healthy soils can be impacted. Unfortunately, there are not many ideal scenarios in these situations, the crop must come off. •

WHAT HAVE REGIONS IN ONTARIO EXPERIENCED THIS YEAR?

Rainfall amounts have varied widely across Ontario. Even where amounts have been lower, the persistence of wet and non-drying weather has reduced days conducive to harvest per week. Even with low rain amounts the ground is still very wet and not drying well so every new event contributes to increased soil saturation.



HEALTHY SOILS

The aim is to create a healthy soil year after year. Healthy soils are more resilient to damage, can carry more traffic for longer than less healthy soils, and can recover faster from damage.

CONSIDERATIONS GOING FORWARD

SHORT TERM

- If not in the snowbelt wait for freeze up, assuming lodging is low, and grain is in good condition
- Although not ideal to take soybeans off wet and dry them slowly, it is still preferable than not being able to harvest or making a bigger mess when time has expired, and harvest can't wait any longer and the field conditions have deteriorated further
- Consider not operating the combine or buggy at full capacity, handle lighter loads
- Check tire pressures and adjust to lowest value that the tire is rated for in the field (reinflate tires when road travel under speed and load occurs)
- Create a traffic lane and remain on it with buggies, to isolate the majority of the damage
- Repair visual damage (rutting, etc) with tillage, which would otherwise impede next year's field operations
- Where possible isolate deep tillage to the areas with the most damage (ruts, wheel tracks)
- If ground is really saturated, fix visible problems, and consider delaying deep tillage to the future, after wheat when conditions are better
- Do not create more damage with the wrong tillage type at the wrong time (eg. deep ripping in wet conditions and then driving compaction deeper with the next ill timed traffic pass)

LONGER TERM

- Do not count on frost to solve compaction problems, as sometimes it is not enough, or the ground doesn't freeze
- Include more crops in rotation: cereals, cover crops, forages, along with corn and soybeans
- Increase drainage where possible
- Consider Central Tire Inflation Systems (CTIS) along with better and bigger rubber on heavy implements
- Work towards less tillage as a whole in the system. Ensure it is the right amount of tillage with the right tool at the right time to fix long term issues caused by a bad year
- Where possible, do not drive and load trucks or gravity wagons in the field
- Build truck loading areas at field entries to isolate soil damage (ie gravel field entrances)



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DISRUPTERS

PLAN AND BE PREPARED FOR

- Changing weather patterns and how this will impact harvest hours and logistics
- Size of equipment increasing along with increased yields which puts added stress on the field and the delicate soil ecosystem