

Keynote Speaker Summary

Steve Hoffman



Key take aways

Profitable farming: The main goal is to harvest a profitable crop. Profitable farming includes managing risk and improving soil health.

Infiltration rates: Soils must absorb rain and snow melt to have a profitable crop.

Cycle nutrients: Soils support nutrient cycling, which can lead to reduced inputs and a profitable crop.

"There's not a simple recipe...every year is different. Soil health is a management intensive journey."

– Steve Hoffman

Keys to soil health

Less tillage: Cold turkey is not a good strategy.

Soil health is a journey that takes time.

- **SHALLOW vertical tillage:** "ticklage" on low, wet, clay soils that do not dry uniformly.
- **Ticklage:** defined as ½ inch vertical tillage.
- **Dry time:** allow 12-24 hours before planting after ticklage.

Cover crops: Relay nutrients to next year's crop.

- **Time of planting:** lower seeding rates in early fall (August/early September); higher seeding rates in late fall (late September, October, or November).
- **Cover crop goals:** higher seeding rates for forage or weed suppression; lower seeding rates for soil health only.
- **Soil fertility:** lower seeding rates on fields with manure; higher seeding rates for fields without.
- **Cover crop mix:** combination of overwintering and winter-kill cover crops.
 - **Winter-kill covers:** tend to grow faster in and absorb more nutrients in the fall. However, susceptible to nutrient loss in spring (e.g., barley, oats, and radishes).
 - **Overwintering covers:** in spring, living cover crops release less dissolved phosphorus. Help infiltrate snowmelt and rain. More intensive management required (e.g., rye, winter wheat, triticale).