



Ken Nixon

SYSTEMS APPROACH TO STRIP TILL YIELDS ECONOMIC AND ENVIRONMENTAL BENEFITS

BY: LILIAN SCHAER

Ken Nixon is one of Ontario's early adopters of strip tilling, an approach to tillage that only works the strips of ground where the crop will actually be planted. Passionate about soil properties, he first saw strip till in action in southwestern Ontario in the late 1990s - and had the opportunity to try out a strip till unit on his own farm in 2004. "That was the first time strip till was on our farm and the light came on for me that this was something that we needed to seriously look at," says Nixon, who farms with his father George and brother Kevin at Ain Lea Farms just north of London.

Strip tillage is a tool bar with row units that tills strips of soil eight to 14 inches wide using shanks, coulters or a combination of both. The tilled strip is able to warm up and dry out more quickly than the rest of the soil, and fertilizer can be banded or mixed in. The undisturbed strip helps reduce erosion and can leave the cover crop undisturbed, fostering soil health.

Benefits of Strip Tillage

The Nixons had already been growing wheat and soybeans using no-till; adding strip till for their corn was a complementary step that lets them leave as much residue on the soil as possible, while supporting biological activity underground and mitigating erosion concerns.

"In any of our ground and soil types we are on, we're very comfortable with strip till and we've done custom work across broader soil types. Outside of marshy muck, I can't think there is a soil type where I wouldn't use the system," he says.



Implementing Strip Tillage

They've taken a systems approach to integrating strip till into the operation, moving seedbed preparation and fertilizer application to the fall and combining three tillage passes and one fertilizer application pass over the land into a single operation. That has resulted in both a lighter workload and significant financial savings on inputs, labour and equipment.

"When I do a crop budget, it's not what you gross on a farm or a crop, it's how much you keep at the end of the day - that's what drives us," he explains. "Sometimes, in our tillage system, strip till may not increase your yields but the costs are going down faster than revenue and that's where I want to be."

Farm size and where someone is in their farming career will impact decision-making around implementing strip till, Nixon notes. He does test plots for other farmers who are considering a switch to strip till, as well as custom work for growers who either don't have the operational scale to make the strip till equipment investment themselves or are single operators late in their farming careers who are looking to lighten their spring workloads.

Making the financial jump into strip till isn't cheap from an equipment perspective, he admits, but the key is looking at the investment across the entire land base, as well as the savings on other costs, like cultivators, discs and plows.

"Strip till allowed us to complete the no-till trifecta as we were already doing no-till soybeans and wheat," he says. "Our soils bear up better under equipment, water infiltration is incredible, and erosion has been largely mitigated. It's been a huge win for us."



Ken Nixon is one of four Ontario farmers featured in an in-depth video series exploring strip tillage in Ontario. The videos are available at <https://www.farmfoodcareon.org/farming-and-the-environment/strip-tillage/>.

Strip Tillage Challenges: Operational scale and Financials

Soil Health Benefits: Reduces erosion and fosters soil health.

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