

Kings County No-Till

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While no-till planting results in dividends for soil conservation, it is the bottom line on his financial sheet that has convinced Doug McLaughlin to adopt this method to sow his crops.

"It's the cheapest way for me to get my crop in the ground," the former dairy farmer said.

McLaughlin, who now concentrates on producing corn, grains and silage, experimented with a few acres of no-till corn two years ago, availing himself of the Kings County Soil and Crop Improvement Association's (KCSCIA) no-till corn planter. Last year he planted all of his corn and grain by no-till. "My yields have been as good as with conventional tillage and my costs have been lower."

No-till eliminates the need for ploughing and harrowing (two or three times), which cuts down on the amount of fuel used, and the time needed to carry out the operations, providing savings to the farmer. A heavier specialized planter is needed to slice through the ground, drop a seed in and cover it.

The Sussex area farmer has looked at buying his own no-till equipment but he does not grow enough grain to justify the cost. For now, using the Association's corn planter and a grain planter that is available to area growers serves him well.

He is not alone in choosing the option. Kier Miller, who operates the Soil and Crop corn planter and owns a grain drill that he rents out to others in the Sussex area, has a waiting list.

The Kings County group bought a corn planter several years with the objective of promoting no-till. Twenty-five acres of no-till corn were planted the first year. "We are up in the 600-700 acre range now per year and that's just with our corn planter," Miller said. Two farmers who initially used the Club's planter have since bought their own equipment. Tallying in their acres, he estimated that there is close to 1500 acres of no-till corn in the Sussex area.

The New Brunswick Soil and Crop Improvement Association, at one time owned a no-till grain drill but decided to put it out to tender and a regional soil and crop association in another area of the province presented the successful bid. Miller had been using that drill. "When it left, I still wanted to plant my grain no-till so I purchased one through the assistance that was available through the Federal/Provincial Land Stewardship Program, which required completing an Environmental Farm Plan."

No-till is a recognized Beneficial Management Practice (BMP) to conserve soil. The Eastern Canada Soil and Water Conservation Centre website provides this explanation: "Excessive tillage depletes the soil organic matter which increases soil compaction, reduces water infiltration, increases runoff and soil erosion."

Miller stresses no-till also plays a role in the mitigation of climate change through reduction in the use of fossil fuels and fields managed with no-till are believed to release less carbon to the atmosphere.

While he recognizes the positive environmental impacts of no-till management, Miller, like McLaughlin is most impressed with its affect on his bottom line."The cost benefit is phenomenal."

His and McLaughlin's experiences are borne out in a cost analysis prepared by Walter Brown, Crop Development Officer with the NB Department of Agriculture in Sussex. In 2008, Brown looked at McLaughlin's cereal grain production, comparing 122 acres of no-till to 29 acres planted by conventional

methods, calculating fuel, labour and equipment costs associated with the elements of each process. There was no difference in manure spreading and fertilizer application. However, in terms of spraying, the no-till had lower equipment costs per acre (\$3.85 compared to \$11.93) but higher overall costs per acre as his calculations were based on two applications for no-till and one for conventional tillage. Brown found the total cost per acre for offset disc ploughing to be \$24.97, for harrowing (two times) \$15.13 and for planting \$64.12. No-till drill planting costs per acre totalled \$87.91. The overall total cost of no-till came to \$282.41 compared to \$292.23 for conventional tillage, a saving of about \$10 per acre.

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