

FROM 8% OVERLAP TO 1% OR LESS

APG is part of a two-year study to test sectional control technologies that reduce the area of a field that's seeded or fertilized twice – great for business and the environment.

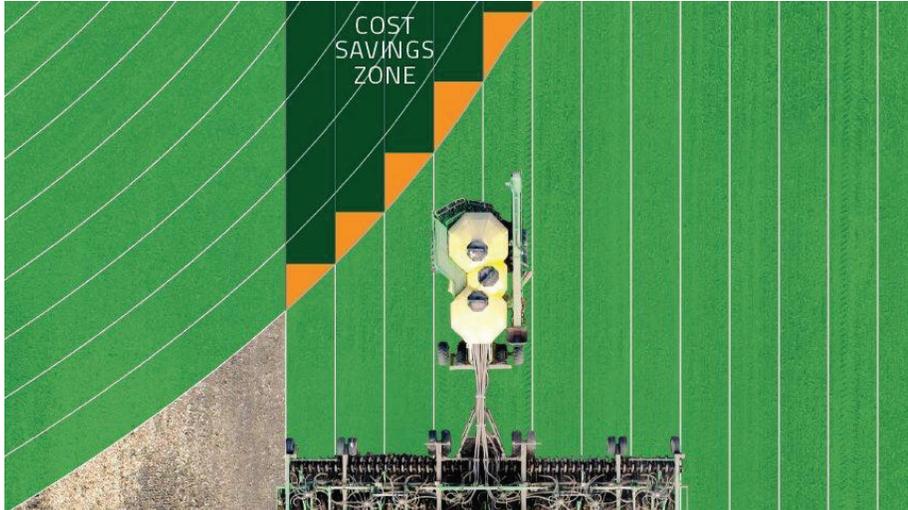


Photo: John Deere

This diagram shows the reduction in seeding overlap that sectional control technology provides.

Until the day comes when farm fields are perfectly square, crop producers will continue to look at input overlap as an issue that needs to be addressed. In a world where a 2% yield gain is well worth pursuing, the prospect of reducing or even eliminating overlap is a massive opportunity.

“Most fields are irregularly shaped, and producers also need to steer around features like trees, wetlands and stone piles,” said Nevin Rosaasen, Policy and Program Specialist with Alberta Pulse Growers. “Avoiding overlap also gets harder as equipment gets bigger. A 70-foot drill operating in the corner of a field makes it pretty tough.”

Furthermore, retention of undisturbed vegetation in fields has been shown to be beneficial in retaining carbon, increasing pollinator habitat and

maintaining parasitoid and predator insects.

In recent years, equipment manufacturers have developed sectional control technologies that shut off components down to the individual seed run and can even lift up individual openers. The producer's navigation system recognizes when areas have already been done, so they're not seeded or fertilized again.

“When you're reducing a litre of diesel from being burned or reducing overlap of fertilizer, that saves money and there's an environmental savings as well,” Rosaasen noted. “This represents potentially one of the most impactful technologies for reducing overall input costs but also emissions associated with nitrogen fertilizers and fuel.”

Costs vs benefits for farm and planet

What's the best sectional control technology and set-up to use on your farm? A new project funded by the Canadian Agricultural Partnership and led by crop commissions including APG will evaluate what's out there and issue practical recommendations that producers can use.

“Producers need independent information, developed with scientific rigour, that shows what the emissions savings are as well as the costs,” Rosaasen said. “This project will look at the different technologies from original equipment manufacturers and after-factory additions. After two years, we expect to have a workable spreadsheet where growers can evaluate the upfront cost and related savings of different shutoff technologies.”

What would it mean to a producer to find the right sectional control technology for their agronomic situation? Rosaasen suggested the degree of input overlap could be as high as 8% prairie-wide. Saving 8% on seed, fuel and fertilizer should comfortably pay for the sectional control and leave a healthy return on investment. Without 8% of the field being double-seeded and double-fertilized, the crop stand should be more even and easier to manage and harvest.

The environmental implications are just as sweeping, in Rosaasen's view.

“If you are able to get that 8% overlap down to 1% or less, that's a lot of nitrogen dioxide, which has much higher greenhouse gas potential than CO₂, that could be abated or mitigated,” he said. “A lot of farmers are already investing in technology to reduce their costs and their impact on the environment, and sectional control technology could be a real game-changer.”