

# Controlled traffic farming project

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Agricultural Research and Extension Council of Alberta (ARECA) is managing the project and has hired former team leader with Alberta Reduced Tillage LINKAGES, Peter Gamache, as project coordinator.

Controlled traffic farming (CTF) is a crop production system with permanent traffic lanes where machinery tires travel each year. This approach restricts soil compaction to the permanent lanes and, compared to random traffic, significantly reduces the area of the field that is compacted. The result is improved crop yields. CTF is done by building a machinery system where, as much as possible, all machinery uses a similar wheel gauge – the distance between wheels across the machine.

"This new project was initiated by Alberta farmers who are interested in improving farming efficiency and performance of direct seeded farming systems," explains Gamache.

Compaction is a largely unrecognized problem in Alberta fields. The move to larger and heavier equipment and random traffic patterns in most cropping

systems has increased compaction issues, although the economic loss has yet to be quantified.

The key objectives of the project are to build a network of key farmers, agronomists and others with CTF interest and expertise, assist growers that are implementing CTF, assess CTF in Alberta, develop resources for growers, conduct extension activities, and develop a three-year CTF plan.

Robert Ruwoldt, one of Australia's top no-tillers and CTF farmer, introduced the CTF concept to Alberta farmers at Direct Seeding Advantage in 2008 and again at FarmTech 2010. In Australia, more than two million hectares were under CTF in 2007. CTF systems have led to a 10 to 15 per cent improvement in crop yields on a range of soil types across Australia.

"Much of the CTF research and adoption is occurring in Australia," says Gamache. "The Alberta project is an opportunity to begin testing the Australian experience in Alberta conditions and to look at the equipment issues. It is an opportunity to evaluate the agronomic and economic implications of CTF."

CTF could significantly improve crop production in Alberta. By combining no-till and CTF into one system, farmers can increase their net returns. CTF has the potential to improve soil structure – reduce overall compaction, increase soil water storage, improve infiltration, increase moisture use efficiencies, improve nutrient uptake, reduce pesticide costs, reduce fuel consumption and lower machinery investment. Adoption of direct seeding in Alberta is projected to be 12.08 million acres or 65 per cent of annually seeded acres by 2011. Consequently, the opportunity to adopt CTF is significant.

If you are already practicing CTF or inter row seeding, or are interested in these new concepts, contact Gamache at 780-720-4346 or email [pmgamache@gmail.com](mailto:pmgamache@gmail.com)

Funding for an initial one year has been received from the Alberta Crop Industry Development Fund (ACIDF) and the Alberta Canola Producers Commission, Alberta Pulse Growers, Alberta Barley Commission and the Alberta Winter Wheat Producers Commission.

