

Ontario Tree Fruit Innovation and Technology Roadmap

GPS guided tree planters

Evaluating New Technologies

	Feasibility and cost	Implement	Labour Reduced	Changes in production	Training for staff	Impact on risk of COVID-19 Transmission
Identified Technology	low, medium, high	easy, medium, challenging	% estimate	easy, medium, hard	none, medium, high	none, low, medium, high
GPS guided tree planters	high	easy	30-50	easy	medium	medium

Current Status - Tree fruit growers are using tree planters with GPS guided systems. GPS guided tree planters make tree planting in rows and blocks more accurate, faster, and more efficient. The manual preparation time to mark rows is eliminated.

Feasibility of Implementation - Capital purchase costs for GPS guided tree planters are high. Several Ontario growers that have large acreages are currently using this technology. Solutions including offering custom tree planting services using GPS guided equipment across several growing operations could make this more affordable for all orchard sizes.

Impact on Labour - These innovative tree planters using GPS technology significantly increase labour efficiencies for tree planting; they reduce much of the preparation and set-up time for marking rows, etc. Labour for planting crews can be reduced significantly, in some cases by up to 50%.

COVID-19 Mitigation Risk – This technology helps to reduce overall labour requirements for tree planting operations therefore implementation can lower the overall risk of COVID-19 exposure and transmission for orchard operations.

Need for Change, Research and Training - There is some training needed for the GPS guided systems and for the tractor operator.