

Ontario Tree Fruit Innovation and Technology Roadmap

Automatic Robotic Palletizer

Evaluating New Technologies

	Feasibility and cost	Implement	Labour Reduced	Changes in production	Training for staff	Impact on risk of COVID-19 Transmission
	low, medium, high	easy, medium, challenging	% estimate	easy, medium, hard	none, medium, high	none, low, medium, high
Automatic/Robotic Palletizer and pallet wrapping machines	high	medium	30-50	medium	medium	high

Current Status - An **automatic compact palletizer** combines the advantages of a robotic palletizer with traditional palletizing technology. This equipment has an innovative automatic gripper that guarantees exact positioning of each unit onto the pallet. A four-axis system is used to precisely pick the unit from a pick-up conveyor and place it on the pallet. In its basic version, the empty pallet is manually placed into the machine and the full load is removed with a forklift truck. A robotic palletizer can handle one or more units at a time according to pallet configuration and forms multiple layers on a pallet after picking the products off a conveyor. Robotic palletizing solutions can easily accommodate different pallet patterns and product types.

Feasibility of Implementation – Cost is high but easy to implement.

Impact on Labour - These systems reduce labour by automating the manual palletizing and wrapping process.

COVID-19 Mitigation Risk - This would reduce some labour and therefore reduce the risk of exposure and transmission of COVID-19.

Need for Change, Research and Training – Implementation would require minimal operational/process changes, and operational training.