

## Ontario Tree Fruit Innovation and Technology Roadmap

### Platforms & Harvest Machines

#### 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
Platforms and harvesting machines	medium - high	easy	30-50	easy	medium	high

Current Status - Apple growers, with established high-density orchards on trellis, use platforms to replace ladders and hand harvest from different levels on the platform. New harvesting equipment with GPS and a data retriever can record the size of fruit and yield on the platforms.

Feasibility of Implementing - Platforms are costly, but it has been a relatively swift transition for apple growers with high density orchards. The payback can be fairly quick (2-3 years) if the grower has 80 acres or more. Platforms are a multi-purpose and can be used for several in-orchard tasks and therefore can have a high return on investment for growers.

For tender fruit, platforms are more difficult to adapt to open centre training systems. Some tender fruit growers have also been using “home-made” versions of platforms that create labour efficiencies and replace ladders in the orchard. More apple growers are using platforms and harvesting machines for harvest. It has been made easier to implement with bin carriers.

Impact on Labour – Impact on reducing labour needs is high. Most apple growers using platforms report that this is one of the best labour savings devices for harvesting. Harvest was 18% faster from a platform compared to using a ladder in an OMAFRA study in 2011. Workers reported in the study that they liked working on the platforms, had only one task to do and had less fatigue at the end of the day.

COVID-19 Mitigation Risk – The benefits of platform technologies help to create labour efficiencies and reduce labour for harvesting, as such this technology helps lower the risk of COVID-19 exposure and transmission for growing operations. As well, workers on platforms can be spread far enough apart from each other and barriers can be installed for increased protection to reduce the risk of transmission and mitigate exposure.



**Ontario  
Tender Fruit  
Growers**

Need for Change, Research and Training – Changes to adjust to the machinery for harvest would be needed since bin carriers are attached and workers would need to be trained on the new equipment.