

**FFT Genetic Resource Management Program
2018-2019 SWTIA Approved Projects**

SWTIA 2018-1

Project	Monitor and control redheaded jack pine sawfly
Approved Funding:	\$5,000
Description:	This project is proposing to monitor and protect the Eton-Rugby second-generation jack pine clonal seed orchard from defoliation by the redheaded jack pine sawfly (<i>Neodiprion rugifrons</i>). During the summer of 2017 defoliation from the redheaded jack pine sawfly was observed on young jack pine trees in the clonal orchard. We are proposing to monitor the orchard during the summer of 2018 for the redheaded jack pine sawfly population in the orchard and based on results from the monitoring to conduct control measures to protect the second-generation jack pine clonal orchard from defoliation caused by the redheaded jack pine sawfly.

SWTIA 2018-2

Project	Inject GA in the Rugby white spruce clonal orchard
Approved Funding:	\$2,500
Description:	This project is proposing to apply a treatment to stimulate and enhance cone production in the Rugby white spruce clonal seed orchard. The Rugby clonal orchard was rogued in 2016 to increase the level of genetic gain in the seed produced in the orchard, but it also reduced the number of crop trees in the orchard. White spruce is known to have a longer and more varied cone periodicity compared to black spruce. The proposed injection of gibberellic acid (GA) has been shown to stimulate the development of female and male buds in white spruce that develop into cones the following season. The proposed GA treatment will stimulate the production of improved seed from the Rugby white spruce seed orchard that will be used in tree planting operations on Crown land within the Dryden 4300 breeding zone.

SWTIA 2018-3

Project	Mark and rogue the LNE jackpine seedling seed orchard
Approved Funding:	\$49,000
Description:	This project is proposing to mark and rogue the Lake Nipigon East (LNE) breeding zone, first-generation Appendix Lake jack pine seedling seed orchard to retain trees ranked in the top 20% based on family and individual breeding values. The proposed rogueing of the Appendix Lake orchard will enable the orchard to produce genetically-improved seed for use in tree planting operations on Crown land in the Nipigon and Kenogami forests within the LNE breeding zone.

SWTIA 2018-4

Project	Mark and rogue Red Lake 3300 white spruce clonal orchard
Approved Funding:	\$35,000
Description:	This project is proposing to mark and rogue the Red Lake 3300 first-generation Bawlb Lake white spruce clonal seed orchard to retain trees ranked in the top 50% based on parental breeding values (PBV). The rogueing of the Bawlb Lake clonal orchard will enable the orchard to produce genetically-improved seed for use in tree planting operations on Crown land within the Red Lake 3300 breeding zone.

SWTIA 2018-5

Project	Complete rogueing in the Rugby white spruce clonal orchard
Approved Funding:	\$8,500
Description:	This project is proposing to complete rogueing and disposal of the rogued trees in the Rugby white spruce clonal seed orchard. The rogueing of the Rugby clonal orchard was initiated in 2017 with FFT funding. However, a small portion of the orchard was not completed in part due to challenges with cutting and removing the large orchard trees within the project budget. The proposed final rogueing of the Rugby clonal orchard will enable the entire clonal orchard to produce genetically-improved seed for use in tree planting operations on Crown land within the Dryden 4300 breeding zone.