

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

FGCA 2018-1

Project	EastCentral -White pine assisted Migration seed production areas
Approved Funding:	\$13,560
Description:	<p>This 3-year project will see the strategic establishment of 2 White Pine Assisted Migration Seed Production Areas within the eastcentral areas currently described by seed zones 30, 35, 36. These Pw AM SPAs will have significant seed production potential, and with intensive management can start to produce cones and seed within 25 to 40 years for central Ontario forest managers. In the interim, management of the southern seed orchards can supply seed to central and northern Crown forests, however their local adaptation and crop production may also suffer from climate change effects. This project serves to both renew and move that genetic material using the 160 clonal seedlots collected in 2017 from the Cayuga southwestern Ontario seed orchard. This genetic material has already, after 8 years of testing in central Ontario, proven its adaptation and superior growth in central Ontario. It is not too early to begin this important work. Without it, readily available sources of adapted white pine seed for central Ontario forests are uncertain. This work is of significant interest to Central Ontario SFL forest managers including Ottawa Valley Forest and Mazinaw Lanark Forest Inc.</p>

FGCA 2018-2

Project	WestCentral -White pine assisted Migration seed production areas
Approved Funding:	\$9,040
Description:	<p>This 3-year project will see the strategic establishment of 1 White Pine Assisted Migration Seed Production Area within the westcentral area currently described by seed zones 28 and 31. This is a unique area previously described as the Georgian Bay white pine area. This Pw AM SPA will have significant seed production potential, and with intensive management can start to produce cones and seed within 25 to 40 years for central Ontario forest managers. In the interim, management of the southern seed orchards can supply seed to central and northern Crown forests, however their local adaptation and crop production may suffer from climate change effects. This project serves to both renew and strategically move selected genetic material from among the 160 clonal seedlots collected in 2017 from the Cayuga southwestern Ontario seed orchard. This genetic material has already, after 8 years of testing in central Ontario, proven its adaptation and superior growth in central Ontario. It is not too early to begin this important work. Without it, readily available sources of adapted white pine seed for central Ontario forests are uncertain. This work is of significant interest to Central Ontario SFL forest managers including Westwind Forest Stewardship, Bancroft Minden Forest Company and the Algonquin Forest Authority.</p>

FGCA 2018-3

Project	Southern White Pine Clonal Seed Orchard Management for Climate Change Ready Seed (Phase 1 of a 2-phase project)
Approved Funding:	\$28,250
Description:	In the next 2 years, 18/19 and 19/20, we propose to complete major management operations that will ensure the southern Ontario white pine clonal seed orchards (seed zones 37, 38 and 32 to 34) will provide good cone and seed production for at least 10 years, in support of crown land white pine reforestation in central Ontario. Details are provided below. The focus continues on the 3 southern seed orchards which have undergone substantial management in the previous 2 years. Significant cone crops, weather concerns and the pending loss of cone processing capacity (due to MNRF OTSP closure) resulted in necessary crown management operations being concentrated in only 1 orchard (Cayuga) in 2017 to ensure the entire large crop was collected and could be processed.

FGCA 2018-4

Project	Central White Pine Clonal Seed Orchard Management for Climate Change Ready Seed (Phase 1 of a 2-phase project)
Approved Funding:	\$28,250
Description:	In the next 2 years, 18/19 and 19/20, we propose to complete major management operations that will ensure 4 central Ontario white pine clonal seed orchards will provide good cone and seed production for at least 10 years, in support of crown land white pine reforestation in central Ontario. Details are provided below. The focus is now on the 4 (of original 5) seed orchards which have undergone substantial management in the previous 2 years. Significant cone crops, weather concerns and the pending loss of cone processing capacity (due to MNRF OTSP closure) resulted in necessary crown management operations being concentrated in only 2 orchards (Taylor Lake and Gratton) in 2017 to ensure those crops were collected and processed.

FGCA 2018-5

Project	Westmeath FGRM site rehabilitation for white spruce climate change adaptation
Approved Funding:	\$33,900
Description:	The Westmeath FGRM site in eastern Ontario North of Ottawa, is a historically significant site for white spruce genetic material. This Beachburg-Douglas gene pool has been internationally recognized for decades as superior to other white spruce gene pools, however the original natural populations have been largely extirpated. This site therefore has significant potential for Ontario white spruce conservation. Given the economic potential for white spruce it also has potential to support northern white spruce forest adaptation to climate change. In this 1-year project we propose to assess its health, fully describe its genetic composition and potential for migration to northern areas, plan and begin rehabilitation operations including thinning, topping and seed collection, and review the potential to establish a new seed production area using southern seed sources. Any seed crops collected in 2018 will be banked and also considered for use in establishing seed production areas to the north.