

Western Hemlock Maritime 1 - 600m Conservation -- Seed Orchards -- Seedling Use

SPU #3

GENETIC CONSERVATION STATUS

Conservation statistics

Seed planning unit (SPU) area	7,333,067	ha
Area protected within SPU	697,388	ha
Percentage of SPU area protected	10%	
Estimated genetic reserves with >5000 mature trees based on botanical sample data	>9	
Confirmed genetic reserves with >5000 mature trees based on forest inventory data	95	

Conservation status

Current in-situ protection status: **Very well protected**
 Probability of maintaining > 3 protected areas with adequate
 population size given natural disturbance regimes: **Very high**

For further information visit <http://www.genetics.forestry.ubc.ca/cfgc/>

ORCHARD STATUS

Orchard location	Orchard number	Number of parents	Mean BV	# of ramets currently established	# of ramets planned for final orchard size	Target Seed production kg/y at maturity	Target seedling production (mm/yr) at full production	Latitude range for seed use
WFP (SFC)	170	22	16%	262	262	2.8	0.92	48' to 52'
TW (Mt Newton)	182	31	14%	248	248	4.3	0.87	48' to 52'
				Total ramets	510	510	Total production	1.79
Vegetative propagation						Stecklings/Emblings	0.0	
						Total production	1.8	

Seed and Nursery Factors

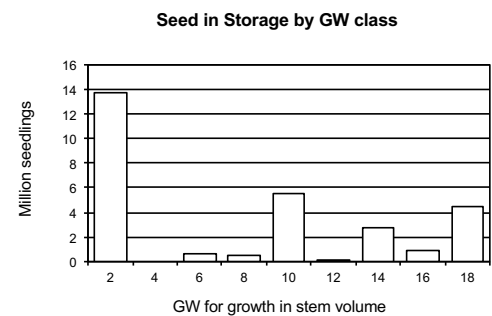
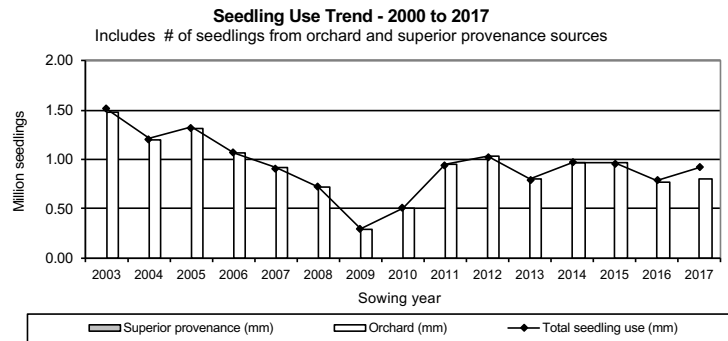
Expected annual average seedling production per ramet = 3,500
Seed weight (seeds/gram) = 443
Seedling recovery factor (seedlings/seed) = 0.45
Seedling recovery factor (seeds/seedling) = 2.22

Estimate of Required Orchard Capacity

Annual planting (million seedlings)	0.9
Planned over-production factor	1.3
Ramets required	254
Ramets required with over-capacity	330
Projected necessary expansion	0

SEEDLING USE AND SEED IN STORAGE

Average 5-year seedling use from SPAR (2013 - 2017) 0.9 million
Estimated years of class-A seed in storage 32.1 years



Notes:
 - Seedling use data include 1/2 of adjacent overlap zones, where applicable
 - Sowing year: Aug 1 to July 31 (i.e. 2017 sowing year starts Aug 1, 2017)

Notes:
 - "Reserve" and "Available" seed in the Seed Planning and Registry System (SPAR) are included.
 - Class A = seed orchard; Class B+ = superior provenance; Class B = wild stand seed.
 - Genetic Wroth (GW) for growth means the projected additional wood volume available at rotation compared to using Class B seed.

The above forecasts are based on orchard status, seed inventories and seed use as of June, the year of publication, and are subject to change. Refer to the seed Planning and Registry System (SPAR) or contact the orchard manager for current seed inventories. Contact the Forest Improvement and Research Mgt. Branch, Ministry of Forests, Lands, Natural Resource Operations and Rural Development, to confirm data if used for silviculture or timber-supply planning.