

SPU # 9	Pacific Silver Fir Submaritime 1 - 1000m
Breeding and orchard production	
Program Category: Genecology	Seedling need (million): 0.8 * Includes Georgia Lowlands (GL) filename: 9 Ba M low June 29.08

STRATEGY Genecology testing only at this time. Difficulties with orchard seed production must be overcome prior to a decision to initiate a breeding program.

TRAITS Primary: Stem volume Secondary: Balsam wooly aphid resistance

TESTING AND PRODUCTION	Production Year (July 1 to June 30) -- (Cone harvest year shown)																			
	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25	'26	'27

Parents in progeny test:

Open pollin.	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450
Polycross																				
Clonal																				
F1																				
F2																				
F3																				

Production forecast (million plantables)

Orchards (#, owner)																				
129 TW (Mt Newton)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
B+ seedlots identified																				

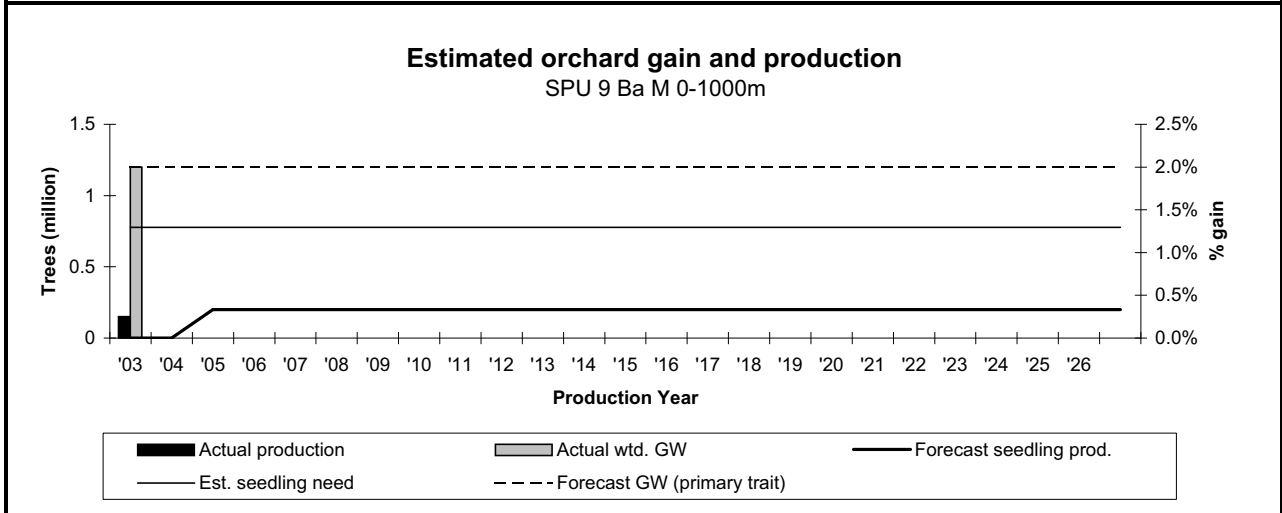
Vegetative prod.:
Phase 1
Phase 2

Estimated gain in primary trait

Orchards (#, owner)																				
129 TW (Mt Newton)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
B+ seedlots identified																				
	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Vegetative prod.:
Phase 1
Phase 2

Total Production	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total gain	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%



Seed production estimates are subject to change. When using this information for silviculture planning or timber supply analysis, contact the Tree Improvement Branch of the Ministry of Forests and Range to confirm data. See SeedMap on www.for.gov.bc.ca/hti/seedmap for current inventory by Seed Planning Unit

Pacific Silver Fir Submaritime 1 - 1000m
 Conservation -- Seed Orchards -- Seedling Use

SPU #9

GENE CONSERVATION STATUS

Conservation statistics

Seed planning unit (SPU) area	8,007,575	ha
Area protected within SPU	762,995	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	28	

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/cfg/>

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/yr at maturity	Target seedling production (mm/yr) at full production
TW (Mt Newton)	129	106	2%	650	650	-	-
Total ramets				650	650	Total production	0.00
Vegetative propagation						Stecklings/Emblings	0.0
						Total production	0.0

Seed and Nursery Factors

Estimate of Required Orchard Capacity

Expected annual average seedling production per ramet = -	Annual planting (million seedlings)
Seed weight (seeds/gram) = 18	Planned over-production factor
Seedling recovery factor (seedlings/seed) = 0.2	Ramets required
Seedling recovery factor (seeds/seedling) = 5.00	Ramets required with over-capacity
	Projected necessary expansion

Provenance testing:

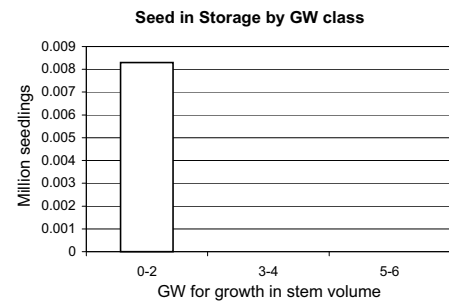
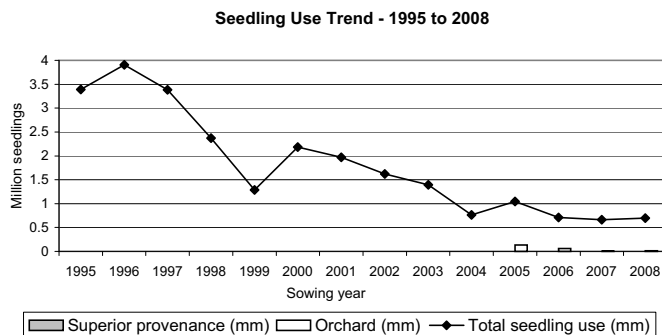
Two short-term tests were established for Ba in 2001.
 Three long-term Ba tests were established in 2001
 Ba seed sources under test cover the range from Alaska to Oregon.
 Test results will be used for identifying B+ stands, and for refining seed transfer guidelines.

Ba SM zone

Provenance testing includes the submarine zone.

SEEDLING USE AND SEED IN STORAGE

Average 5-year seedling use from SPAR (2004 - 2008) **0.8 million** (M zone only)
Estimated years of class-A seed in storage **0.0 years**



Notes:

- Seed held in both "reserve" and "available" status in the Seed Planning and Registration (SPAR) system is included
- Seed inventories change with new orders. Data presented here are based on a June sample.
- For up-to-date information use SPAR, or contact the Tree Improvement Branch of the Ministry of Forests and Range

- Notes:**
- Seedling use data include 1/2 of adjacent overlap zones, where applicable
 - Sowing year: July 1 to June 30 (i.e. 2006 sowing year starts July 1, 2005)

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 See SeedMap on www.for.gov.bc.ca/hti/seedmap for current inventory by Seed Planning Unit