

Breeding and orchard production

Seedling need (million): 1.0

Program category: Advanced-generation

filename: 11 Yc M all Aug 31/10

STRATEGY Clonal testing using cuttings from families selected in a variety of first generation tests. Tests of grafted parents for wood durability. Forward selections (clonal) for seed orchard production and an advanced generation breeding population.

TRAITS Primary: Stem volume Secondary: Wood quality, stem form

TESTING AND PRODUCTION Production Year (July 1 to June 30) -- (Cone harvest year shown)

	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25	'26	'27	'28	'29
Parents in progeny test:																				
Open pollin.	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
Polycross																				
Clonal	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000
F1	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
F2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
F3																				

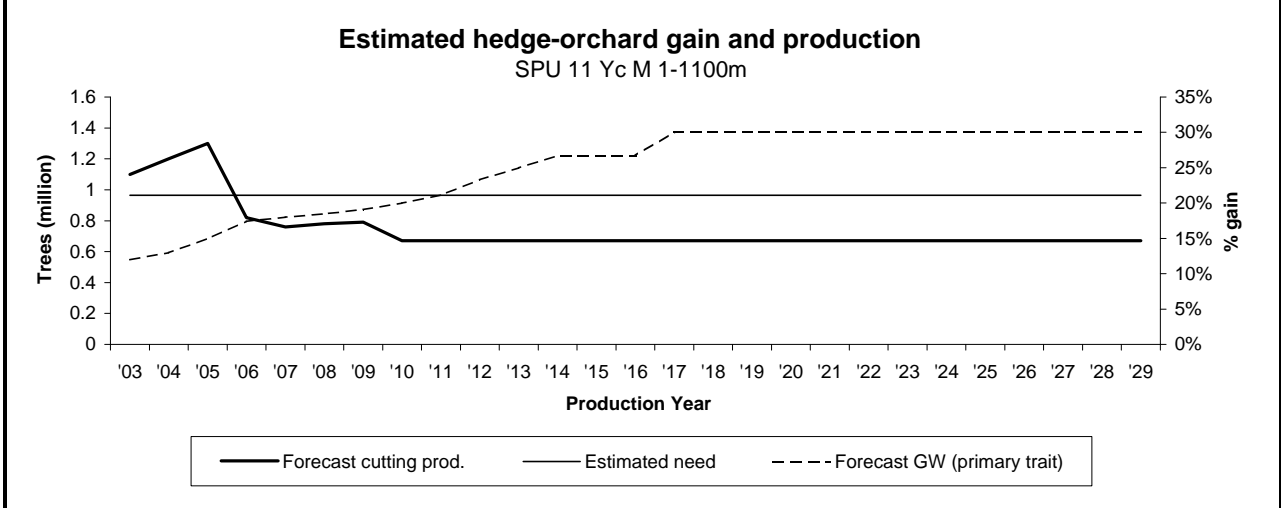
Production forecast (million plantables) All rooted cuttings

Vegetative prod.:																				
WFP (SFC)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
MFR (CLRS)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

Estimated gain in primary trait

Vegetative prod.:																				
WFP (SFC)	20%	22%	22%	25%	28%	28%	28%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
MFR (CLRS)	20%	20%	25%	25%	25%	25%	25%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%

Total Production	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Total gain	20%	21%	23%	25%	27%	27%	27%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%



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

Yellow Cedar Maritime 1 - 1100m
 Conservation -- Seed Orchards -- Seedling Use

SPU #11

GENE CONSERVATION STATUS

Conservation statistics

Seed planning unit (SPU) area	5,007,196	ha
Area protected within SPU	598,235	ha
Percentage of SPU area protected	12%	
Estimated genetic reserves with >5000 mature trees based on botanical sample data	>4	
Confirmed genetic reserves with >5000 mature trees based on forest inventory data	40	

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 hedge trees currently established	\$ of hedge trees planned	Target average annual steckling production per ramet at maturity	Target steckling production (mm/yr) at full production	
WFP (SFC)	191	44	17%	87	112	Unknown		Research orchard
WFP (SFC)	hedge	58	20%	4,778	6,000	70	0.33	
MFR (CLRS)	hedge	many	8%	8,600	8,600	70	0.60	
Total ramets				13,465	14,712	Total production	0.94	

Seed and Nursery Factors

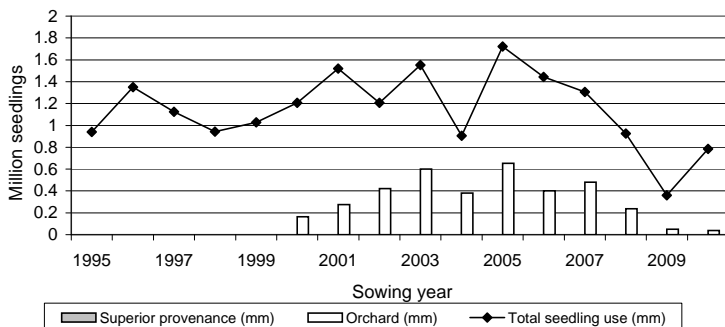
Estimate of Required Orchard Capacity

Expected annual average steckling production per ramet = 60	Annual planting (million seedlings)	1.0
	Planned over-production factor	NA
Cutting recovery factor = 0.80	Ramets required	NA
	Ramets required with over-capacity	NA
	Projected necessary expansion	NA

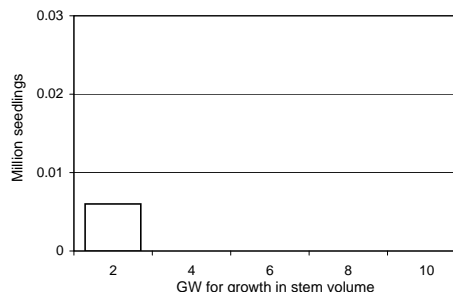
SEEDLING USE AND SEED IN STORAGE

Average 5-year seedling use from SPAR (2006 - 2010) **1.0** million
 Estimated years of class-A seed in storage **0.0** years

Seedling Use Trend - 1995 to 2010



Seed in Storage by GW class



- 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

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