

SPU # 32 **Interior Lodgepole Pine** **East Kootenay** **800 - 1500m**
 Breeding and orchard production
Seedling need (million): 2.4
Program category: First-generation
 filename: 32 Pli EK low July 12, 2015

STRATEGY Selected parents from > 1000m in wild stands in the Thompson Okanagan and Nelson seed zones. Selected parents from higher elevation open-pollinated progeny tests in the TO and NE used to establish an open-pollinated seed orchards.

TRAITS **Primary: Stem volume** **Secondary: Wood density**

TESTING AND PRODUCTION **Production Year (July 1 to June 30) -- (Cone harvest year shown)**
 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 '30 '31 '32 '33 '34

Parents in progeny test:
 Open pollin.
 Polycross
 Clonal
 F1
 F2
 F3

Test populations used for selection are derived from Nelson and Thompson Okanagan progeny tests

Production forecast (million plantables)

Orchards (#, owner)	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25	'26	'27	'28	'29	'30	'31	'32	'33	'34
340 FLNRO (Kalamalka)	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1

Vegetative prod.:

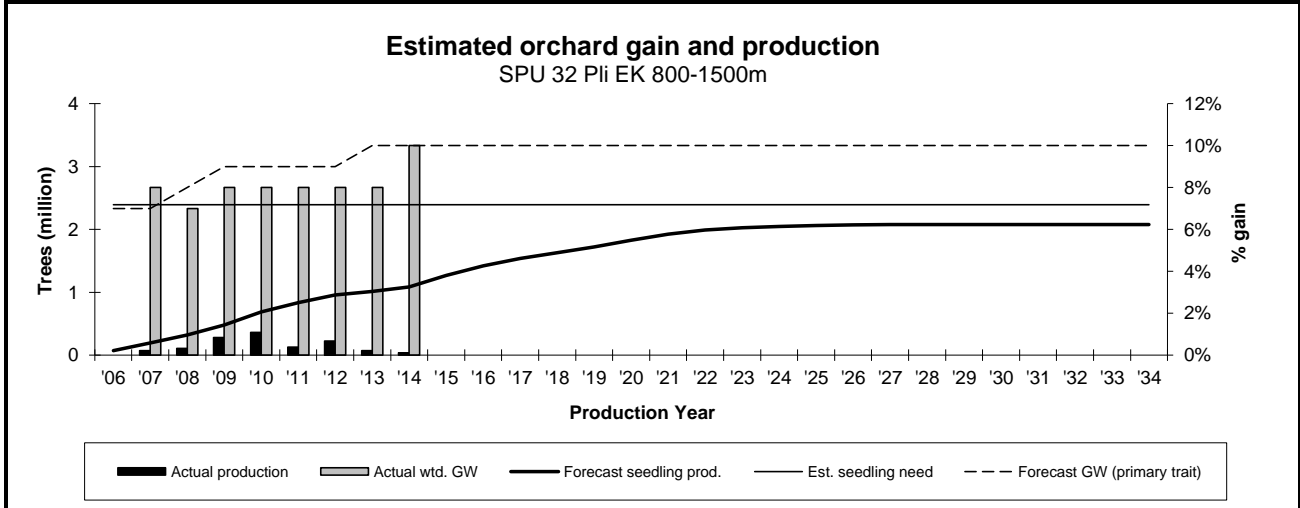
Phase 1
Phase 2
 Estimated gain in primary trait

Orchards

340 FLNRO (Kalamalka)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
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Vegetative prod.:

Total Production	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	
Total gain	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%



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 Lands and Natural Resource Operations to confirm data. See SeedMap on www.for.gov.bc.ca/htl/seedmap for current inventory by Seed Planning Unit

Interior Lodgepole Pine East Kootenay 800 - 1500m
Conservation -- Seed Orchards -- Seedling Use

SPU #32

GENETIC CONSERVATION STATUS

Conservation statistics

Seed planning unit (SPU) area	1,029,351	ha
Area protected within SPU	57,944	ha
Percentage of SPU area protected	6%	
Estimated genetic reserves with >5000 mature trees based on botanical sample data	at least 1	
Confirmed genetic reserves with >5000 mature trees based on forest inventory data	16	

Conservation status

Current in-situ protection status: **Sufficiently protected**
Probability of maintaining > 3 protected areas with adequate population size given natural disturbance regimes: **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	Total Seedling Prod. million seedlings
FLNRO (Kalamalka)	340	38	10%	1,780	2,383	18.4	2.88
Total ramets				1,780	2,383	Total production	2.88

Vegetative propagation	Stecklings/Emblings	0.0
	Total production	2.9

Seed and Nursery Factors

Expected annual average seedling production per ramet = 1,210
Seed weight (seeds/gram) = 243
Seedling recovery factor (seedlings/seed) = 0.65
Seedling recovery factor (seeds/seedling) = 1.55

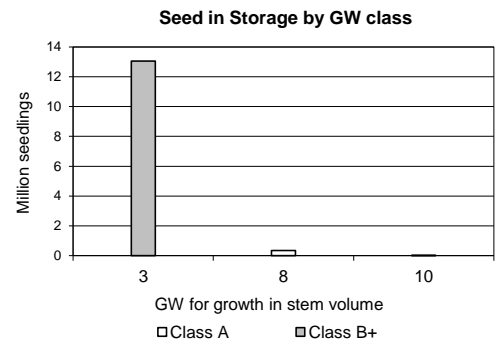
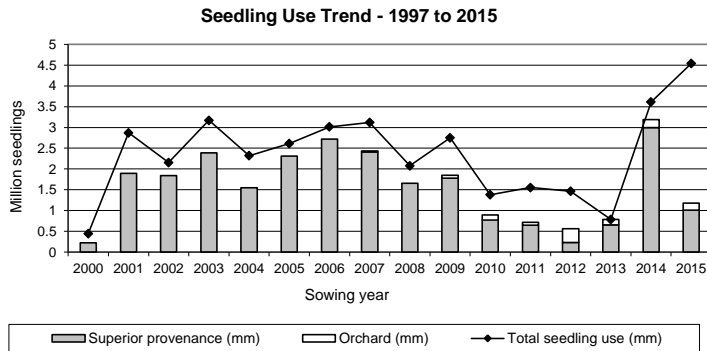
Estimate of Required Orchard Capacity

Annual planting (million seedlings)	2.4
Planned over-production factor	1.3
Ramets required	1,976
Ramets required with over-capacity	2,569
Projected necessary expansion	186

Superior provenances (B+) suitable for this Seed Planning Unit
Cartwright Lake, Champion Lakes, Inonoaklin Creek, Larch Hills, Marl Creek, Rocky Mtn. Trench

SEEDLING USE AND SEED IN STORAGE

5-year average seedling requests to SPAR (2011 - 2015) 2.4 million
Estimated years of class-A seed in storage 0.2 years



Notes:
- Seedling use data prior to the 2000 sowing year are estimated from old seed planning zones and are approximate.
- Seedling use data include 1/2 of adjacent overlap zones, where applicable
- Sowing year: Aug 1 to July 31 (i.e. 2015 sowing year starts Aug 1, 2014)

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 an June sample.
- For up-to-date information use SPAR, or contact the Tree Improvement Branch of the Ministry of Forests and Range

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