

Yield of larch hybrids in northern Scandinavia

Presentation for Larix 2012, Iceland

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Experimental material

- 51 year old Larch hybrids after controlled crossings of selected European and Russian larch (*L. decidua* x *Larix sukaczewii*) or Japanese and Russian larch (*L. kaempferii* x *L. sukaczewii*)
- Two provenances *Larix sukaczewii*, Arkhangelsk and Sverdlovsk, bulk collection

Site conditions

- Lat, N 63° 41'
- Long, E 16 ° 24 '
- Elev 200 m a s l
- T sum 920
- Soil Coarse sand
- Topography Gently S

Objectives

1. Compare height growth and volume production from pure Russian larch with first generation larch hybrids after controlled crossings of selected Russian- and European larch (*L. sukaczewii* and *L. decidua*) or Russian and Japanese larch (*L. sukaczewii* and *L. kaempferi*).

Crossing schedule

Male	L. s 69	L. s 72	L. s 156	L. s 489	L. d 4	L. s 152
Female						
L. d 248	56-1	56-2	56-3			
L. k 247			56-4			
L. k 488				56-8 Eb		
L. k 343					56-22 Eb	
L. e 246						56-8

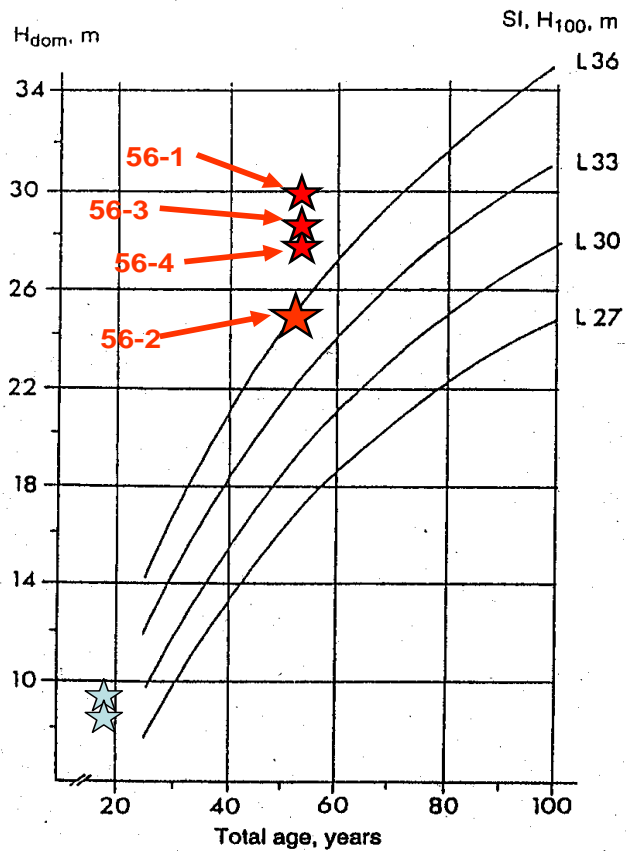
Experimental design

	Family/prove nance	No of trees	Spacing	Plotarea	rep	age
Sörånäset	56-1	4x25	2.5x2.5	156.25	4	51
	56-2	4x25	2.5x2.5	156.25	4	51
	56-3	4x25	2.5x2.5	156.25	4	51
	56-4	4x25	2.5x2.5	156.25	4	51
	56-8	4x25	2.5x2.5	156.25	4	51
	56-8 Eb	4x25	2.5x2.5	156.25	4	51
	56-22 Eb	4x25	2.5x2.5	156.25	4	51
	Arkhangelsk	4x25	2.5x2.5	156.25	4	51
	Sverdlovsk	4x25	2.5x2.5	156.25	4	51

Results from Sörånäset

	Family/provenance	N of trees	age	DBH, cm	Tree height, m	Dom height	m3 per tree	SV m3/ha	MAI m3/ha/yr
Sörånäset	56-1 dec x suk	60 (960)	51	31.3	28.0	28.9	0.996	956	18.7
	56-2 dec x suk	69 (1104)	51	25.5	25.0	25.8	0.629	694	13.6
	56-3 dec x suk	66 (1056)	51	28.3	26.4	28.0	0.785	829	16.2
	56-4 kae x suk	61 (976)	51	27.6	26.9	27.7	0.766	748	14.7
	56-8 eur x suk	25 (400)	51	30.7	25.2	26.9	0.875	350	6.9
	56-8 Eb kae x suk	12 (192)	51	30.1	23.0	29.5	0.958	184	3.6
	56-22 Eb L. eur²	2 (32)	51				0.625	20	0.4
	Arkhangelsk	71 (1136)	51	24.3	22.6	24.7	0.493	560	11.0
	Sverdlovsk	62 (992)	51	22.5	19.9	22.0	0.389	386	7.6

Age, height and site index



Larch hybrids, Ramsele Sörånäset

Here fam 56-4

L. sukaczewii x *L. kaempferi*

Tallest tree:

Bdh 54 cm

Height 31 m

Stem volume 2,94 m³



Conclusion

- Dominant height and volume production of the best hybrids indicate a very high production potential