

The use of Finnish material in northern Swedish *Pinus sylvestris* trials

Torgny Persson 2017-04-19





- Establishment of demonstration trials is the best way of advertise forest tree breeding
- To verify that our transfer models also work in a future "favorable" climate require new provenance trials established in the "current climate" that can highlight any changes over time in important traits such as survival and growth

A realized gain trial serie established 2016-2017

- 15 Swedish and 11 Finnish seed orchard seed lots, of which 20 in common with corresponding Finnish series
- 20 Swedish and 16 Finnish stand seed lots, of which 25 in common with corresponding Finnish series
- 25 entries per trial planted in 8 x 8 multiple tree plots (64 plants) replicated 4 times
- In total 6 (7) trials with 6400 plants per trial

Entry	Southern material planted 2016	Origin lat. (°N)	Northern material planted 2017	Origin lat. (°N)
1	Swedish SO T14 Sollerön	61.0	Swedish SO T7 Skeppsholmen	64.5
2	Swedish SO T12 Gnarp	62.6	Swedish SO T7 Slåttholmen	65.4
3	Swedish SO T11 Köpmanholmen	63.4	Swedish SO T6 Pålberget	66.0
4	Swedish SO T13 Sönnersta	63.4	Swedish SO T4 Moliden	66.1
5	Swedish SO T10 Västerhus	63.6	Swedish SO T5 Pålberget	66.5
6	Swedish SO Sundsvall Elit	64.3	Swedish SO T1 Alvik	66.9
7	Swedish SO T8 Dal	64.9	Swedish SO T2 Alvik	67.0
8	Swedish SO T7 Slåttholmen	65.4	Swedish SO T2 Långnäs	67.0
9	Finnish SO 405	62.2	Finnish SO 435	64.0
10	Finnish SO 416	62.8	Finnish SO 409	66.6
11	Finnish SO 417	62.8	Finnish SO 419	66.7
12	Finnish SO 411	63.6	Finnish SO 432	67.1
13	Finnish SO 418	63.7	Finnish SO 410	67.2
14	Swedish stand seed	60	Finnish SO 442	66-67
15	Swedish stand seed	61	Swedish stand seed	64
16	Swedish stand seed	62	Swedish stand seed	65
17	Swedish stand seed	63	Swedish stand seed	66
18	Swedish stand seed	64	Swedish stand seed	67
19	Swedish stand seed	65	Swedish stand seed	68
20	Swedish stand seed	66	Swedish stand seed	>68
21	Finnish stand seed	60	Finnish stand seed	64
22	Finnish stand seed	61	Finnish stand seed	65
23	Finnish stand seed	62	Finnish stand seed	66
24	Finnish stand seed	62	Finnish stand seed	67
25	Finnish stand seed	63	Finnish stand seed	68

Entry	Northern material planted 2017	Origin lat. (°N)	Trials in Sweden 2017	Trials in Finland 2017
1	Swedish SO T7 Skeppsholmen	64.5	3	
2	Swedish SO T7 Slåttholmen	65.4	3	5
3	Swedish SO T6 Pålberget	66.0	3	6
4	Swedish SO T4 Moliden	66.1	3	3
5	Swedish SO T5 Pålberget	66.5	3	
6	Swedish SO T1 Alvik	66.9	3	6
7	Swedish SO T2 Alvik	67.0	3	6
8	Swedish SO T2 Långnäs	67.0	3	
9	Finnish SO 435	64.0	3	4
10	Finnish SO 409	66.6	3	8
11	Finnish SO 419	66.7	3	8
12	Finnish SO 432	67.1	3	6
13	Finnish SO 410	67.2	3	8
14	Finnish SO 442	66-67	3	5
15	Swedish stand seed	64	3	
16	Swedish stand seed	65	3	6
17	Swedish stand seed	66	3	8
18	Swedish stand seed	67	3	7
19	Swedish stand seed	68	3	5
20	Swedish stand seed	>68	3	
21	Finnish stand seed	64	3	6
22	Finnish stand seed	65	3	6
23	Finnish stand seed	66	3	6
24	Finnish stand seed	67	3	7
25	Finnish stand seed	68	3	6

Entry	Southern material planted 2016	Origin lat. (°N)	Trials in Sweden 2016	Trials in Finland 2016	Trials in Finland 2017
1	Swedish SO T14 Sollerön	61.0	4	4	
2	Swedish SO T12 Gnarp	62.6	4	5	
3	Swedish SO T11 Köpmanholmen	63.4	4		
4	Swedish SO T13 Sönnersta	63.4	4	4	
5	Swedish SO T10 Västerhus	63.6	4	3	4
6	Swedish SO Sundsvall Elit	64.3	4		5
7	Swedish SO T8 Dal	64.9	4		
8	Swedish SO T7 Slåttholmen	65.4	4		5
9	Finnish SO 405	62.2	4	6	3
10	Finnish SO 416	62.8	4	3	3
11	Finnish SO 417	62.8	4	5	3
12	Finnish SO 411	63.6	4	4	3
13	Finnish SO 418	63.7	4	3	4
14	Swedish stand seed	60	4	3	
15	Swedish stand seed	61	4	3	
16	Swedish stand seed	62	4		
17	Swedish stand seed	63	4	3	
18	Swedish stand seed	64	4		
19	Swedish stand seed	65	4		6
20	Swedish stand seed	66	4		8
21	Finnish stand seed	60	4	1	
22	Finnish stand seed	61	4	3	
23	Finnish stand seed	62	4	4	
24	Finnish stand seed	62	4	3	
25	Finnish stand seed	62	4	2	

Locations of the realised gain trials



Stand seed lots in progeny trials

		No. stand seed lots	
Origin		Swedish	Finnish
	67°N	1	2
	66°N	2	1
	65°N	1	2
Target area	64°N	2	1
	63°N	1	1
	62°N	2	2
	Sum:	9	9

Allocation of stand seed lots in trial F843 Sorsele

Group 1 red, Group 2 blue, Group 3 green

