

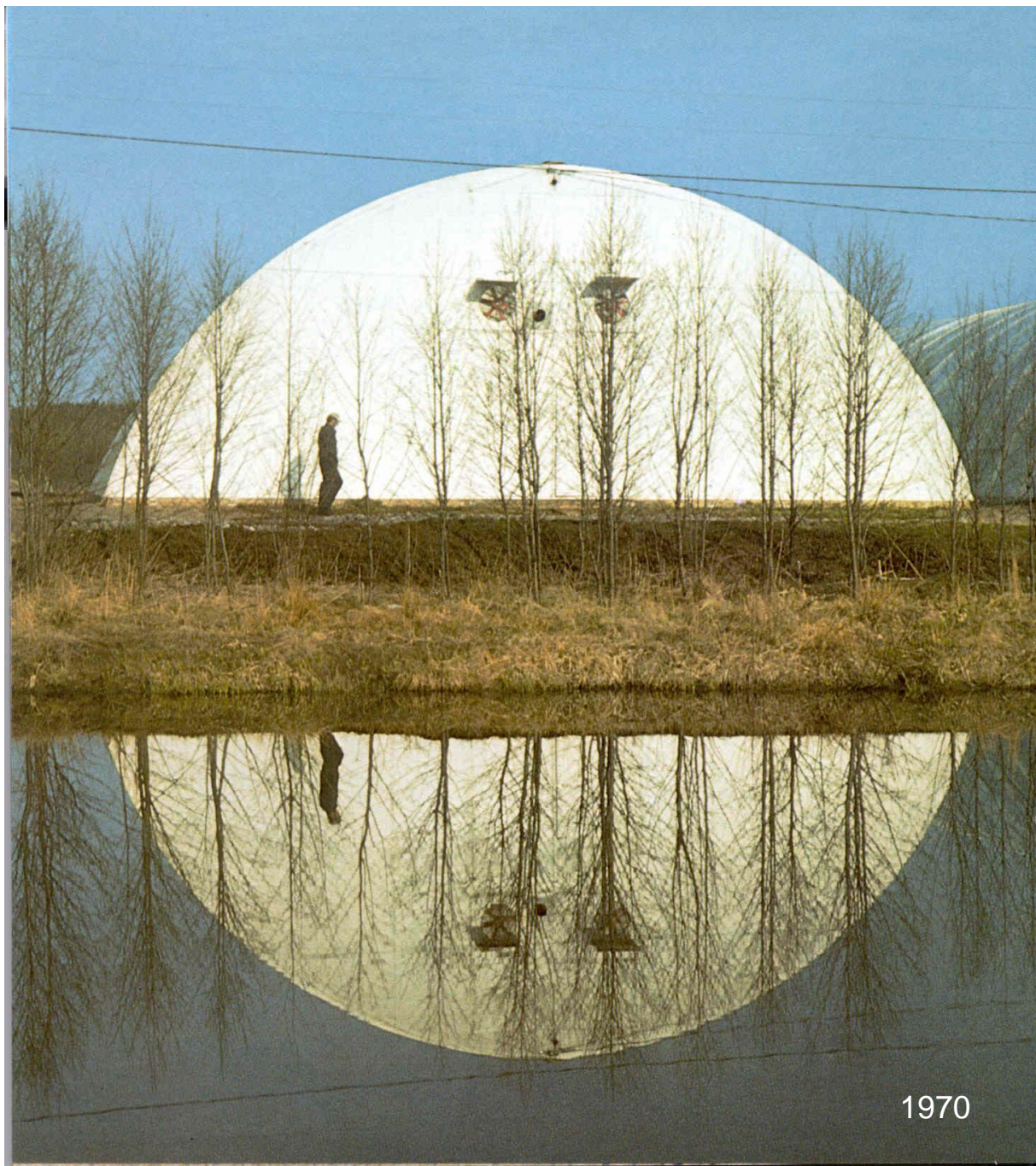
NordGen

Akureyri 11.4.2018

*FINNISH
BIRCH SEED
PRODUCTION
IN GREENHOUSE
ORCHARDS*

Sirkku Pöykkö





At the beginning of the 1970's the seed production of birch was revolutionized when the Foundation for Forest Tree Breeding developed the plastic greenhouse and the related growing technique.

1970



The first birch seed orchards were established already at the beginning of the 1970's at Haapastensyrjä.

1971

GREENHOUSES

wooden structure

single plastic cover; 0,2 mm UV-protected EVA-film

automatic roof vents,
side vents often
manually operated

+ cheap

- low side shape





Planting with 1-year-old grafts, grafting in May-April, planting in August









Growing substrate

- white peat
- 1 kg/m³ basic fertilizer (NPK 14-7-15), 5 kg/m³ lime
- 40 cm layer

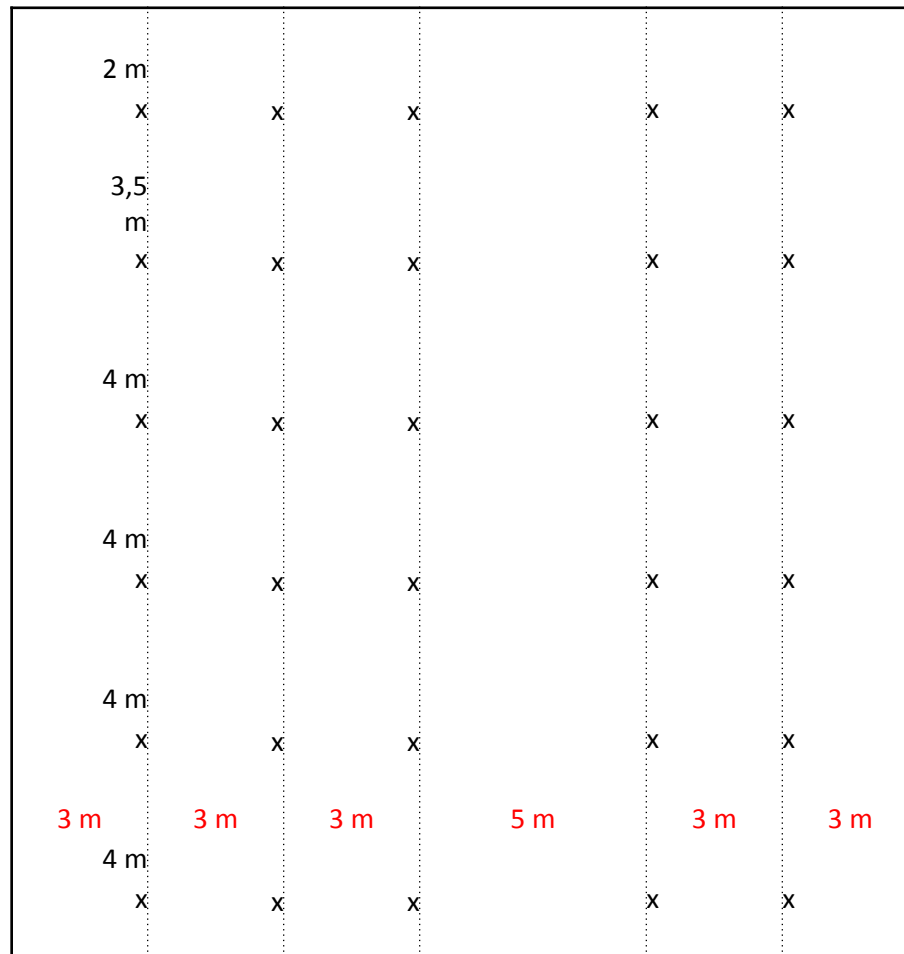








Planting density: 3 m x 4 m









Fibre cloth + lime stone (Ø 8-16 mm)

Maintenance

- Ventilation, timing of flowering

 - greenhouses are closed 4-5 weeks before natural flowering time

 - ventilation temperature +22-25 °C

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Fans for circulating the pollen

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- Flower induction 15.5.-30.6. -> 1.6.-15.7.

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planting density

light: filter cloth + lime stone

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CO₂: propane burning at 04:00-07:00, max. 1000 ppm



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- Fertilization

granular fertilizer, NPK 26,6-1,3-4,3 + S, B, Se, May and late June

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- Fertilization
 - granular fertilizer, NPK 26,6-1,3-4,3 + S, B, Se, May and late June
- Plant protection
 - regular, frequent control
 - treatments when needed, varying active substances, test sprayings



Seed collection by hand:

- lifters



Seed collection by hand:

- lifters
- ladders

Pruning of grafts

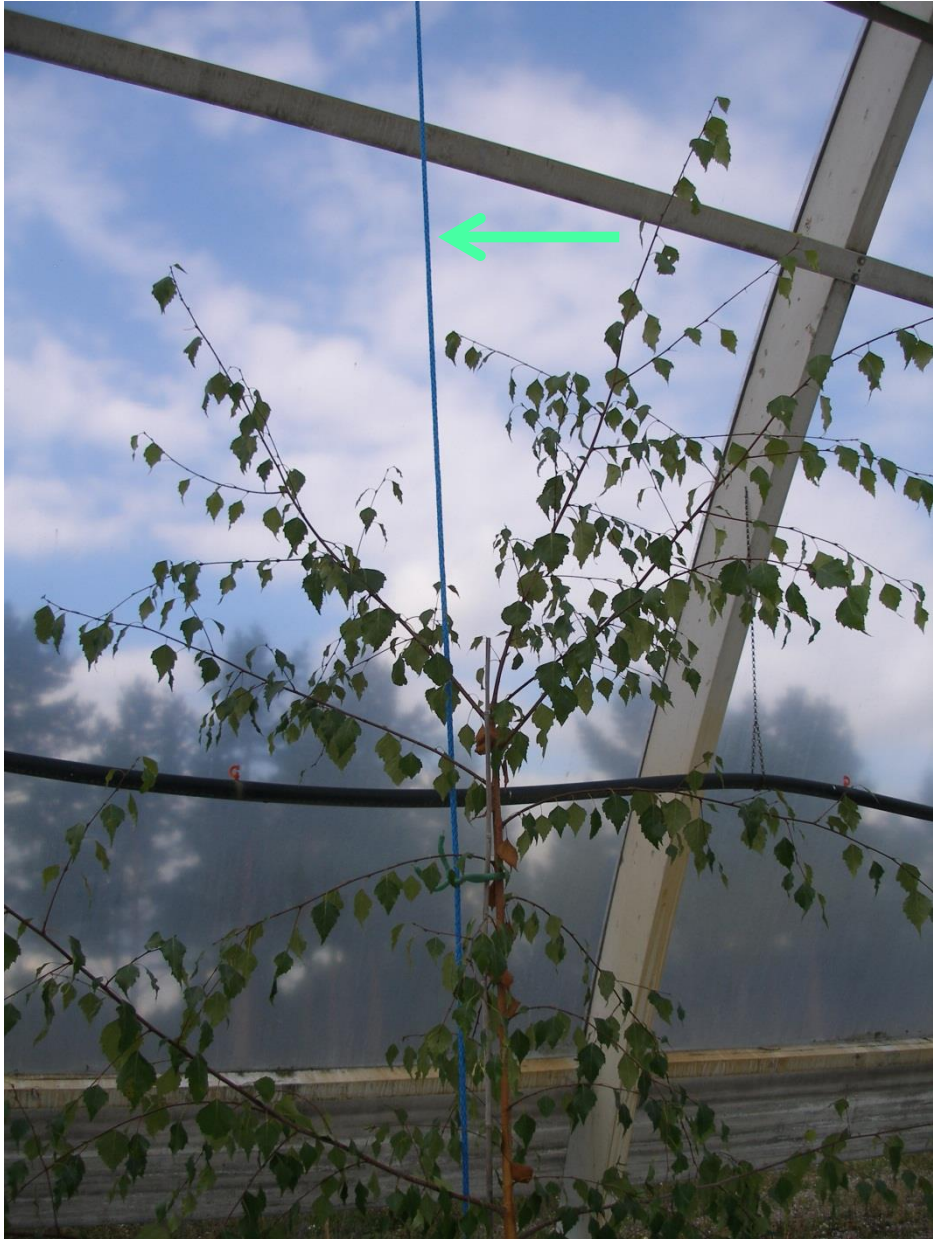




















Rotation period ~ 10 years



PRODUCTION IN 1970-2012

- 35 seed orchards
- (27 *Betula pendula*, 6 *B. pubescens*, 2 *B. pendula* var. *carelica*)
- 3300 kg seed

Photographers

- Jyrki Airaksinen
- Leo Holopainen
- Jari Laukkanen
- Eveliina Masonen
- Esa Mustonen
- Sirkku Pöykkö
- Esa Virtanen



Thank
you!