



August 2013, 1248

Larix eurolepis, Hybrid larch

Seed orchard C.E. Flensburg FP.618

Composition:

Hybrid larch (*Larix eurolepis*), seed orchard C.E. Flensburg FP.618, is composed of plus trees of European larch (*Larix decidua*) of Polish origin selected in Danish provenance trials by the Arboretum (Forest & Landscape, University of Copenhagen). Japanese larch (*Larix kaempferi*) is selected in the seed orchard C.E. Flensburg FP.601 as being the fastest growing larch among the selected 13 clones.

Selection criteria:

Stem form, growth energy (diameter) and basic sweep. The selection criterion is large for Polish larch and moderate for Japanese larch.

Purpose:

Production of seed of high physical and genetic quality.

Design:

Row by row of a mixture of European larch with 4 clones, which are planted in the following way: 1,2,3,4,1,2,3,4 etc., and of Japanese larch with 1 clone – being the only clone from which seeds are harvested. It is documented that flowering among the clones is well-balanced resulting in a high hybrid percentage.

Genetic gain:

The progeny of the seed orchard *Larix eurolepis* C.E. Flensburg FP.618 was tested in 1980 in provenance trials in F.223 Birkebæk Plantage (orchard) and in F.244 Løvenholm Skovdistrikt (Forest district), where it has been compared with 13 progenies of Hybrid larch and with 4 Japanese larches. FP.618 has been approved as tested in 2005 for the qualities – diameter, basic sweep and stem form.

FACTS

Composition

Year of propagation: 1957 - 1962

Year of establishment: 1959 - 1963

Plus tree progeny planted initially: 1 + 4

Isolation to nearest Japanese larch: Approx. 500 m east of the orchard

Reference number: FP.618

Category: Tested

Identification

Species: Hybrid larch (*Larix eurolepis*), Japanese larch (*Larix kaempferi*), X European larch (*Larix decidua*)

Ownership: Hedeselskabet

Supervisor: HedeDanmark a/s, Seed

Location: C.E. Flensburg, Dept. 30

Area: 0.84 hectares

Country: Denmark

Latitude: N 56° 36,918'

Longitude: E 09° 24,169'

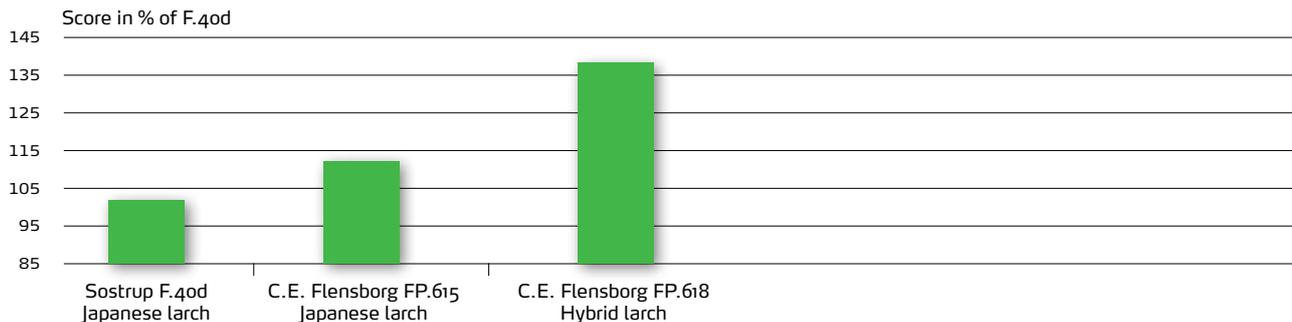
Altitude: 38 metres above sea level

Recommended growing areas: At any location recommendable to plant larch

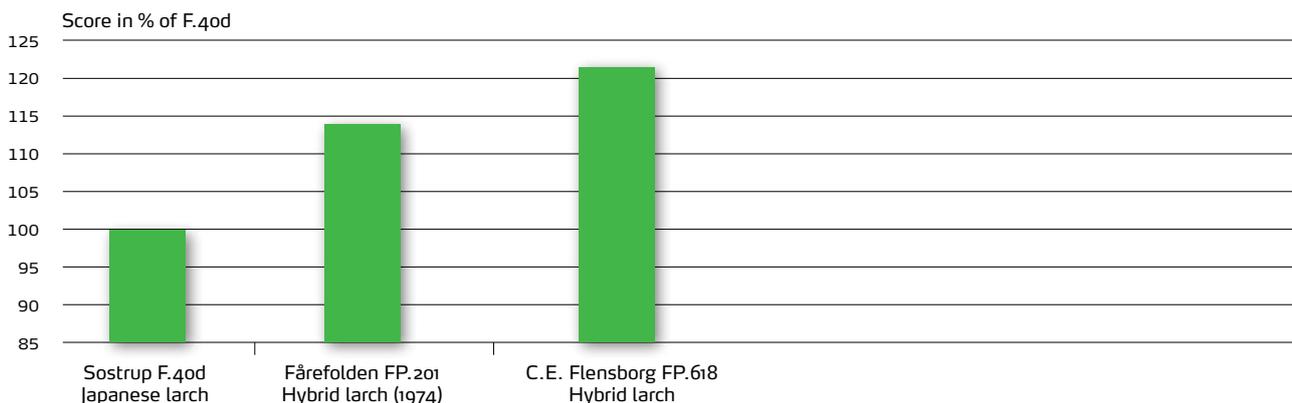
Provenance and origin of the seed:

Description	Origin	Provenance
V.981, V.982, V.983, V.984	Poland, Plizyn near Zagnąsk, SFF (The Danish Forest Experiment Station) tests, 1959	Nødebo, dept. 488, SFF (The Danish Forest Experiment Station) test plot 74, see SFF vol. XXIII
V.6090	Hokaido, Japan	Kongenshus

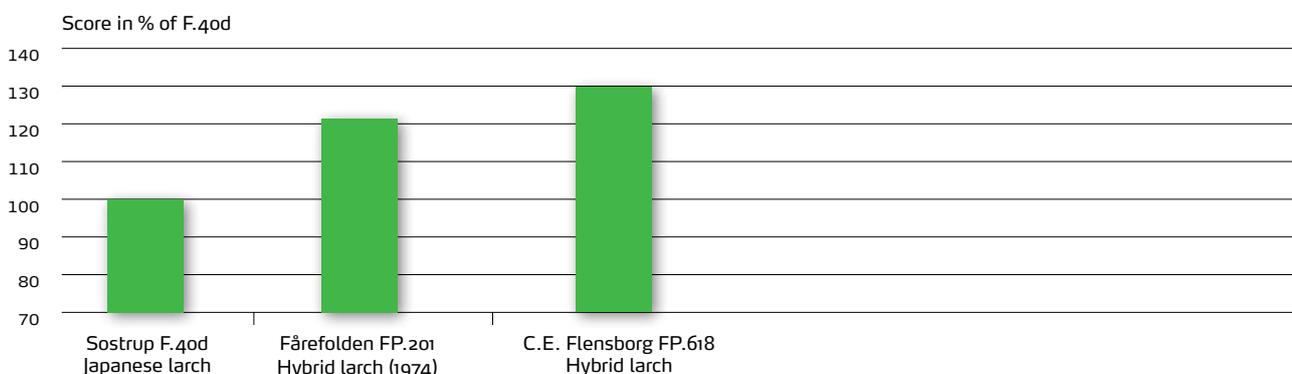
Diameter at 25 years



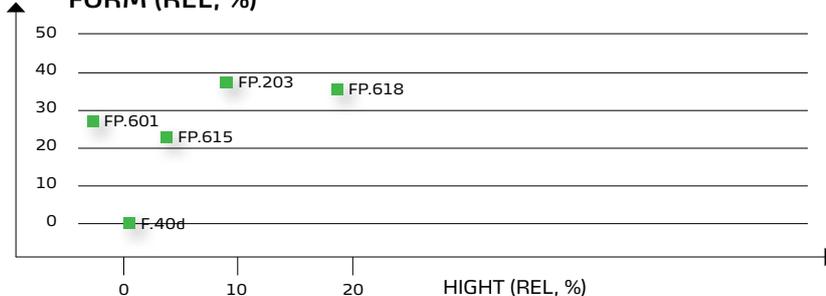
Basal sweep at 18 years



Stem form at 18 years



FORM (REL, %)



FP.201 = Seed orchard (Hybrid larch), Fårefolden
 FP.203 = Seed orchard (Hybrid larch), Holbæk
 FP.618 = Seed orchard (Hybrid larch), C.E Flensburg
 FP.601 = Seed orchard (Japanese larch), C.E Flensburg
 FP.615 = Seed orchard (Japanese larch), C.E Flensburg
 F.40d = Ord. selected seed stand, Japanese larch, Sostrup

Fig.: Relative growth and quality differences (%) between Japanese larch (both ord. seed stand and seed orchard) and Hybrid larch based on 17 years' statements in field trials at Birkebæk Plantation and Løvenholm Forest District. Based on data from KVL (Faculty of Science).