FACTSHEET 06
Macedonian Pine
'Balkans'

KEY FACTS:

- **Species:** Pinus peuce (Macedonian pine)
- **Seed stand name and Location:** Bulgaria, Balkans
- **Category:** Source Identified
- **Site suitability:** Macedonian is incredibly versatile and tolerates a wide range of soils including flushed peat, sandy soils. It is also frost hardy and tolerates upland conditions.
- **Establishment:** Macedonian pine can be established as a pure even aged crop or planted as a mixture. Macedonian is known to have slow growth in the first few years so it is important to ensure that robust weed control and vermin measures are put in place until the crop has established. Suggested planting density of 2,000- 2,500 stems /ha.
- **Timber use, marketing and processing:** Due to the UK resource of Macedonian pine being very small the opportunities for marketing and processing are likely to be confined to smaller, specialist processors until the resource expands. The Macedonian pine has a timber density of 350 kg/m³ at 12% moisture content which is lighter than Scots pine and experience from the Balkans suggests that the timber can be utilised for non load bearing purposes such as joinery timber. Opportunities for early thinnings include chipboard, pulp and woodfuel.

SUMMARY:

Macedonian Pine is native to the Balkan peninsula and was introduced into the UK in 1864. It has been trialled by the Forestry Commission at various sites throughout the UK and has shown promising results in terms of survivability, growth, vigour, yield and most significantly; it has shown good resistance to red band needle blight, pine beauty moth and white pine blister rust.

Concerns over our changing climate & disease pressure has resulted in an increase in demand for Macedonian pine.

Due to it's versatility it is likely to offer a suitable alternative to Lodgepole and Corsican on some sites.

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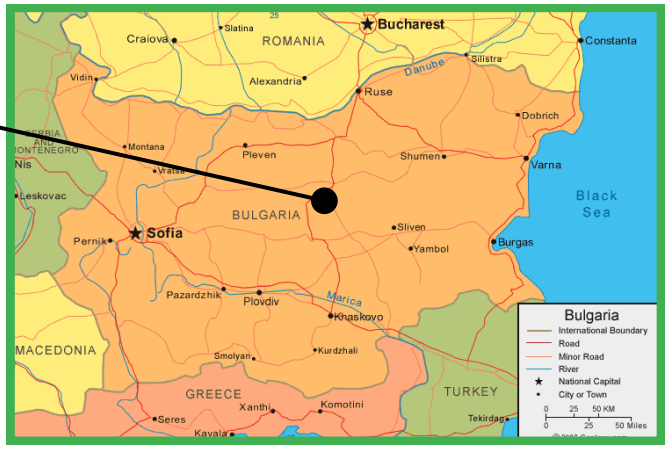
- **Experience has shown that Macedonian pine will tolerate flushed peaty soils so offers an alternative to Lodgepole pine.**
- **FC trials from the 60's indicate that the survival and vigour matched or in some cases, exceeded other pines used for productive purposes.**

Approx location of seed stand



Previous trials - extracts taken from 'The Macedonian Pine, (Pinus peuce) in the Balkans & Great Britain (1985), Roger Lines.

In the 1960's the Forestry Commission commenced trials of Macedonian Pine at seven varying sites throughout the UK from Sutherland (58°N) to Clwyd (53°N). Whilst growth in the first few years was quite slow with an average of around 30cm, the survival rate was high at around 99%. Until the 5th or 6th year the trees tended to have a dense bushy form before making strong vertical growth. By 20 years the mean height over all of the trial sites was 5.2m (equivalent to a GYC 8-10 for Scots Pine).
Basal area was also assessed at 2 sites: Naver, Highland. 130m elevation, severe exposure, shallow to deep peat & Allerton, Pickering, North Yorkshire. 137m elevation, moderate exposure, podzol/brown earth. At Naver the mean basal area of 4 plots was 37.2m² ha^{-1} at 19 years. The mean top height was 6.6m which is equivalent to a GYC of nearly 8 for Scots pine. However the basal area for this yield class at 20 years is only 25.9m² ha^{-1} so the Macedonian pine was 30% higher. Similiarly at Allerston, the plot of Macedonia pine lies within an experiment of Lodgepole pine. The basal area of the Macedonian pine was 39.2m² ha^{-1}at 21 years while the adjacent plot of Lodgepole had a basal area of 30.2m² ha^{-1}, i.e 23% less than the Macedonian.

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References:
LINES, R (1985) *The Macedonian Pine, (Pinus peuce) in the Balkans & Great Britain*
WILSON S.McG (2011) *Using alternative conifer species for productive forestry in Scotland (75-77)*
SAVILL, PETER S (2013) *The Silviculture of trees used in British forestry 2nd ed.*

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