

**INFORMATION - Douglas fir**

## Perceptions of quality in home grown Douglas fir

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Douglas fir has significant economic importance in NW America, New Zealand and parts of Europe, especially France and Germany. Roadside prices for logs are considerably higher in Germany than here in the UK where logs from 50 year old trees can make up to 140 Euros per cubic metre.

In Britain specialist mills such as Somerscales near Grimsby and East Brothers near Salisbury cut large Douglas fir for added value markets but logs never achieve the prices attained in Germany.

We live in a nation which needs to import massive quantities of sawn wood, indeed alongside Japan we are one of the world's biggest importers of timber products so you might think we'd place more value on our better softwoods.

It's surprising how widespread is the assumption that we can't grow quality softwoods in the UK. Debates on the topic have continued for a couple of generations, not helped by mischievous NGOs dismissing plantation conifers in favour of native hardwoods.

Timber quality is a subjective matter and so the only relevant question to ask should be 'is it fit for purpose'?

Structural qualities of British DF are already demonstrated by the fact that



**Traditional timber framing elements being made in Perigord, France with material looking no better than our run of the mill DF**

Somerscales, East Brothers and Ransford's of Bishops Castle all visually grade the timber to C24 when required.

Recent research carried out at Napier and Bath Universities demonstrates the high strength of DF. Dan Ridley Ellis of Napier recently did calculations using data from bending tests on Welsh DF and found the average grade to be around C22, inferring that a significant proportion of much higher grade material was present in the population.

Literature from America and Europe demonstrates that the material properties of Douglas fir vary widely. On good sites it can grow very fast with wide growth rings but when

suppressed, growth rings can be very tight and the resultant timber can be extremely strong.

Ring width and density are not the only



**Simple trussed roof of the workshop also made from DF and spanning nearly 50 feet.**

indicators of strength. The proportion of latewood to earlywood is also very important, with latewood being around three times stronger than that of earlywood. This also explains why DF tends to delaminate between late and earlywood on the surface of planed tangentially sawn boards and on the arris of beams.

In Wales our climate seems to be moving towards high summer rainfall and extended growth into autumn which may favour development of fast growing DF with high bending strength.

As Japanese larch is lost from plantations across Wales due to the Phytophthora epidemic, DF is being considered as the ideal replacement on many sites so the timber may become of greater economic importance in future forests.

If continuous cover forestry grows more in importance, DF could have a special role in extended growing cycles. DF is one of few conifers that will grow faster beyond year 50.

After this threshold the mature heartwood seems to improve,

changing in colour and consistency. North American sawmillers called this older wood 'Oregon pine' and charge a premium for it.

There is no reason to assume that we can't grow DF with similar properties, certainly much French DF is no better than ours but is regularly used in high value added structural work.

We could use more home grown DF in structural and joinery work but we need to use more scientific methods when making judgments about 'quality' and 'value' of our home grown conifer species and we need to learn how to select material appropriate for the different potential applications.

Better understanding will lead to better value adding potential and more profits for Welsh timber processors.

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