Wood Protection Association

Field Trial to assess the durability of British Softwoods

Spruce – pine – Douglas fir - larch

Supported by:

Grown in Britain

Forestry Commission

Scottish Enterprise

The Wood Protection Association (WPA) has just commissioned Britain's largest ever durability trial of home grown timber. This information sheet describes why this field trial is so important to the UK timber industry and why those with an interest in growing the use of British softwoods are giving this WPA project their backing.

WPA has contracted Building Research Establishment (BRE) to conduct a long term controlled field trial of sawn and pressure treated British Softwood posts at two sites with differing soil conditions – one in Scotland and one in England. In all, some 1,560 samples of treated and untreated spruce, pine, Douglas fir and larch posts will be installed across the two sites.

The key objectives of the field trial

The WPA British Softwoods Field Trial has five key objectives. These are to:

1. **assess the natural durability of the key plantation grown softwoods grown commercially in Britain – spruce, pine, Douglas fir and larch;**
2. **objectively assess the benefits of incising technology on these species in UK ground conditions; in marketing materials and;**
3. **compare the impact of two different pre-treatment drying regimes on Sitka spruce;**
4. **compare the impact of two different preservative loadings in UK species and UK ground conditions;**
5. **provide relevant data to better inform future developments in BS 8417 treatment specifications.**

Influencing BS8417

In 2013, BSI accepted WPA recommendations to increase the penetration depth required in the BS8417 30 year specification for ground contact (Use Class 4) treated wood. A growing awareness about variability in the natural durability of heartwood, particularly in fast-grown plantation softwoods, contributed to this specification change.

Any process that results in achieving the new heartwood penetration requirement may be used but, as in other parts of the world, it is expected that incising prior to treatment may be the only practical method currently available for commercial use – particularly for species that are difficult to treat.

The WPA believe that strengthening the 15 year specification should only be based on data derived from a controlled field trial of commercially sized sawn posts of spruce, pine, Douglas fir and larch from UK forests. To provide this data the WPA Field Trial will include batches of posts that are:

- **untreated;**
- **treated to current BS8417 Use Class 4 retentions and with some sample batches treated to higher retentions;**
- **Incised and treated to BS8417 Use Class 4 retentions.**

This project uses commercially available incising patterns, independently audited and assessed.

In all there will be approximately 1400 75 x 75mm treated samples (600 incised) and 160 untreated controls in the field trial, across both sites. In addition, the project will also include some smaller EN252[1] samples to characterise the test sites against other UK test site locations. This is a low cost addition that will provide some very useful additional data. The project will run for up to 15 years.

The wood preservatives used in this field trial have all been approved by the WPA after independent scrutiny of efficacy data under our Benchmark Product Approval scheme. The preservative loadings used in preparing samples will be those approved by WPA and audited by BRE.

This project is not intended to be a comparative assessment of the different preservative systems used and the performance data on each system will only be available to the supplier of that system.

All test sample post preparation, quality control and project logistics and management will be carried out by WPA, in partnership with key commercial organisations who have an interest in the market for British Softwoods. The key role of auditing these activities, the establishment and monitoring of the two test sites, and annual reporting on the condition of test stakes, will be the responsibility of BRE.

[1] Field Test method for determining effectiveness of wood preservative in ground contact.

Treatment of posts will be to recommended retentions to achieve BS8417 UC4 15 years specification. Some batches will be treated at higher retentions to provide comparative data.

BRE intends to give the field trial a high profile at their Watford site to underline its importance to the timber supply chain. BRE's Ed Suttie (centre) explains to WPA Director Steve Young (left) and WPA Field Trial Project Manager, Gordon Ewbank (right) the planned location for the post installation

Sawn and incised 75mm x 75mm posts awaiting commercial impregnation for ground contact use class 4

Major stakeholder support

Much of the activity involved in establishing this field trial is being facilitated through WPA members who have a direct commercial interest in the information that will be produced.

- Sourcing, conditioning and incising of posts is sponsored by BSW & James Jones.
- Preservative treatment and analysis of penetration patterns and loadings which result is sponsored by BASF, Lonza and Osmose.
- The field site in Scotland is provided courtesy of James Jones and,
- The site in England is courtesy of BRE and Grown in Britain.

Getting your organisation involved

There is growing industry interest in this commercially relevant project and WPA is inviting other organisations and individual companies to back the initiative and become either a Project Associate or an Associate Sponsor:

Project Associates:

This category enables other timber trade associations a stake in the first reporting phase of the project. To date, TTF, Confor, UKFPA and TDCA have agreed to be project associates and we hope that other trade associations with an interest in the use of British Softwoods will follow suit.

This sponsorship opportunity is renewable for each major reporting stage of the field trial as it progresses over the years. Details of the sponsorship cost are available from the WPA.

WPA British Softwoods Field Trial PROJECT SPONSOR

Project Associates can use this logo to show their support for this important project

Associate Sponsor

For an initial contribution of £250 an individual company can become an Associate Sponsor and be entitled to use the logo below and receive the WPA annual project report. Associate Sponsorships are renewable on an annual basis.

WPA British Softwoods Field Trial ASSOCIATE SPONSOR

Inividual Associate Sponsors can use this logo to show their company is backing the biggest ever durability trial of home grown timber.

Who is backing this WPA Project?

This WPA initiative has been a long time in the planning but successful bids for matching funding support from Forestry Commission Scotland and Scottish Enterprise and a financial contribution from the Grown in Britain campaign have made this important project possible together with the sponsorship support of WPA Members involved in home grown timber supply, incising and wood preservation. Here we acknowledge the support given to date:

WPA Field Trial - Major Sponsors
Forestry Commission Scotland
Scottish Enterprise
Grown in Britain
WPA

Field test sites
Scotland – James Jones
England – BRE

Sourcing and production of posts
BSW Timber
James Jones

Wood preservation
Arch Timber Protection
BASF Wolman
Osmose

Project Associates
Confor
Timber Trades Federation
UK Forest Products Association
Timber Decking & Cladding Association

Associate Sponsors
Bond Timber
Burt Boulton & Haywood
Calders & Grandidge
James Davies
Munro Sawmills
Taylormade Timber
M&M Timber
Clifford Jones Timber
Cordiners Sawmills
Ransfords

Service Providers (Contracted)
Building Research Establishment

Further information

For further information on this key research project or to enquire about becoming a project sponsor, please contact the Wood Protection Association on info@wood-protection.org.

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