

Is all wood good?

How confident are you that your timber is not from illegally logged rainforest or ancient woodlands? And just how environmentally benign are the treatments applied to softwoods? It is easy to assume that timber is a sustainable choice but all is not so black and white. Louise Zass-Bangham considers the facts

Below right: Style and sustainable design come together in this untreated oak pergola by Helen Billetop. Below: Always look for the FSC logo when choosing timber products.

According to research by environmental conservation organisation WWF: 'The UK is the largest importer of illegal timber in Europe, consuming an area the size of Devon (645,000ha) every year'. The problem is not limited to rainforests — ancient forests across Europe and North America are also plundered. The loss of these forests has major repercussions for climate change, the water cycle and lost pharmaceutical potential. Retaining ancient forest is key to our future survival. Glib marketing words that your timber is from sustainable forestry mean little. Greenpeace advises: 'Be careful: teak from forests is often sold as teak from plantations. Only experts can tell the difference'.

Independent certification bodies such as the Forest Stewardship Council (FSC) work to address the issue of illegal logging. The FSC chain of custody means it possible to track timber from the forest to the finished product. It is effectively a guarantee that the timber has come from a responsibly managed forest. Similarly, the Programme for the Endorsement of Forest Certification schemes (PEFC) promotes a framework for forest certification schemes in Europe.

There is no FSC-certified iroko, opepe, balau or wenge timber available, while many species of balau are on the IUCN (the World Conservation Union) Red List of threatened species. There are a few FSC-certified suppliers of teak, tatajuba, itauba, massaranduba or garapa.

Locally sourced timber

Locally sourced timber is a preferable choice due to its lower transport miles. Temperate climate timbers suitable for outdoor use (untreated) include oak, sweet chestnut, western red cedar, Douglas fir





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and larch. Timber organisations such as the Timber Research and Development Association (TRADA), and good timber merchants can advise on durability for a particular application.

Reclaimed timber is clearly the most sustainable in terms of getting maximum useful life from a timber. Reclaimed timber is widely available via architectural salvage merchants listed on the online SALVO directory. This way, your timber can also be truly locally sourced.

Toxic timber treatments

Timber preservatives are chemical fungicides and pesticides. The word 'treatment' is perhaps an inappropriate one, hiding the reality by making it sound beneficial rather than harmful to the environment.

Creosote is carcinogenic. It is banned from use where children would come into contact with it and should not to be used as wood edging for beds employed for food production. The most commonly used timbers containing creosote are reclaimed railway sleepers, but new untreated oak sleepers offer a safer alternative.

CCA, containing chromium, copper and arsenic, is also toxic — the clue is in the ingredients. It too has been banned from use in children's playgrounds. Previously, its use was widespread which means treated timber found in situ needs to be handled with care as it could well have been treated with CCA. It cannot be composted or burned on site and should be treated as hazardous waste. Do not grow food on the site of an old deck.

Manufacturers have switched to treatments such as copper-HDO (Cu-HDO), alkaline copper quaternary (ACQ) and copper azole (CA). But

Cu-HDO is toxic to fish and aquatic life and is classified by the Department for Environment Food and Rural Affairs as 'dangerous for the environment' and 'harmful if swallowed'. The guidelines from the US Environment Protection Agency on handling ACQ and CA also give cause for concern: 'Work clothes are advised to be washed separately from other household clothing to prevent cross-contamination. Do not use preserved timber where the preservative may become a component of food, animal feed or beehives'. Some suppliers add: 'Only preserved timber that is visibly clean and free of surface residue should be used for patios, decks and walkways'.

Do you really want this in your client's garden, soil or water table? Garden Organic advises: 'Avoid the use of preservatives wherever possible. They are, by their very nature, persistent, toxic products'. Worse, when it comes to disposal, timber treated with these chemicals is taken out of the biocycle as it is not safe to use it for mulch or composting and must not be burned domestically. It may only be disposed of in landfill or an industrial incinerator.

Timber treated with these types of compounds cannot be considered sustainable, as it negates the idea that the timber is a renewable resource when it cannot be returned to the biocycle to create more trees. This is quite apart from the environmental risk of using toxic chemicals.

Alternative timber treatment

Raw linseed oil is the traditional choice to help extend the life of untreated timbers which are not in contact with the soil (except for oak, which it stains black). Garden Organic notes that new plant-based preservatives are available that are claimed to be safer to use than the chemical

Above left: This contemporary show garden by Jo Penn uses carefully sourced oak fencing from Quercus.

Above: Reclaimed timber is not just for small projects, as this treehouse by the Lindahl Lodge Company demonstrates.



TITIAN WOOD

Above: Accoya wood, used in this deck, is safe to compost after use.

treatments, but they 'currently have no information to support or refute that claim'.

A few companies have developed innovative alternatives. For example, Accoya wood is modified with a derivative of acetic acid (think soaking conkers in vinegar). The resulting timber is very durable and can be disposed of like untreated timber, including through composting or domestic burning.

If you are looking to colour timber there are several ranges of solvent-free or low-solvent paints and stains available. Ideally, choose products that allow the timber to be safely composted at the end of its life. Remember that even the most natural treatment still involves energy-intensive processes to manufacture and apply.

What can we do?

All the timber we specify should be either reclaimed, certified by FSC or PEFC, or from local managed forestry where you personally

understand their practices. As a minimum, update your standard specification for timber with the words 'FSC or PEFC-certified only'. To find FSC-certified suppliers for a specific type of timber, use the FSC database (*see website references below*).

The best option is to specify timber that is naturally durable without treatment. The demand for tropical hardwood is driven by its natural durability but there remains the issue of transport miles. Specify untreated timbers that are as locally sourced as possible. Otherwise, specify treatments which are truly environmentally benign, so that the timber can be composted at the end of its life rather than treated as hazardous waste. If you are considering treated timber, find out exactly what chemicals it contains, read the safety precautions and see if it is compostable. Do not accept at face value a manufacturer's claim that a treated timber product is harmless.

Finally, educate your clients, colleagues and contractors about the issues so that they can make an informed decision.

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Website references

Further information can be found at: www.fsc.org, www.pefc.org, www.gardenorganic.org.uk, www.wwf.org, www.accoya.info, www.salvo.co.uk and www.epa.gov. The FSC database of certified suppliers and products is available at: www.fsc-info.org, and the TRADA timber species database at: www.trada.co.uk/techinfo/tsg

Right: Locally reclaimed timber in the form of old breakwaters find a new life in a coastal garden by Mark Laurence.



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