



In the context of climate change and concerns over unsustainable resource use, there is growing consumer demand for wood as an environmentally friendly alternative to plastic-based materials. 28% of British timber goes into the pallet and packaging sector; pallets are omnipresent in our lives and their glamorous 'urban cool' appeal of late makes them the perfect ambassador to link the forestry story to the wood products people use every day. **Stefanie Kaiser** reports

A flagship for sustainability

On a dull day in October I visit Gil Covey in Golborne, one of James Jones' (JJS) pallet manufacturing and repair sites. Gil is executive chairman of the JJS Pallets and Packaging Division and former president of both the UK Timber Packaging and Pallet Confederation (TIMCON) and its European equivalent FEFPEB. From the moment Gil steps into the room, his enthusiasm for pallets is contagious; it takes him only a couple of minutes to get the key point across that pallets are THE flagship example of a sustainable everyday product and that efficient resource use is at the heart of the pallet production and repair processes at James Jones and Sons.

At sites like Golborne, JJS creates new pallets for all major pallet pools (ie pallet rental systems, namely LPR, CHEP, IPP Logipal and EPAL) and independent clients. Furthermore, pallets are inspected and recycled and repaired to all standard specifications. The business has an annual capacity of five million new wooden pallets and 20million pallet inspections and repairs.

James Jones and Sons is proud to source all of their pallet timber from British and Irish, FSC-certified forests. Whilst it is part of the company's business values to support local forestry, there are other, more practical reasons to choose domestic wood over imported stock, says Gil Covey: "it is faster and easier to source compared to imported timber and the company benefits from the existence of cutting-edge sawmills such as JJS mill in Lockerbie, that specialise in the efficient and fast processing of roundwood. Furthermore, British softwood is ideally suited to consistently comply with the standards and customer specifications for pallets, such as strength characteristics, appearance and quality. When using locally sourced wood, the assembled pallets can be heat-treated and kiln dried which most customers in the food and beverage sector prefer to the anti-stain

treated pallets from abroad.

Gil points out that **manufactured pallets strictly complies with the ISPM15 phytosanitary regulations**, which are critical to protect our forests from pest infestation.

Promoting circular economy – the pallet lifecycle

Wooden pallets are made from a natural material harvested from renewable and sustainable forests; as well as being reusable, repairable, and recyclable. At the end of their life, the wood can be used for biomass or biodegrade easily.

James Jones and Sons is proud to be involved in the pallet production process from planting trees for timber to reusing components once pallets are discarded.

The wood sourcing for the pallet industry follows the principle of Cascade of Wood Use, predomi->>

Prime example of a sustainable product

The environmental credentials of wood are unbeatable

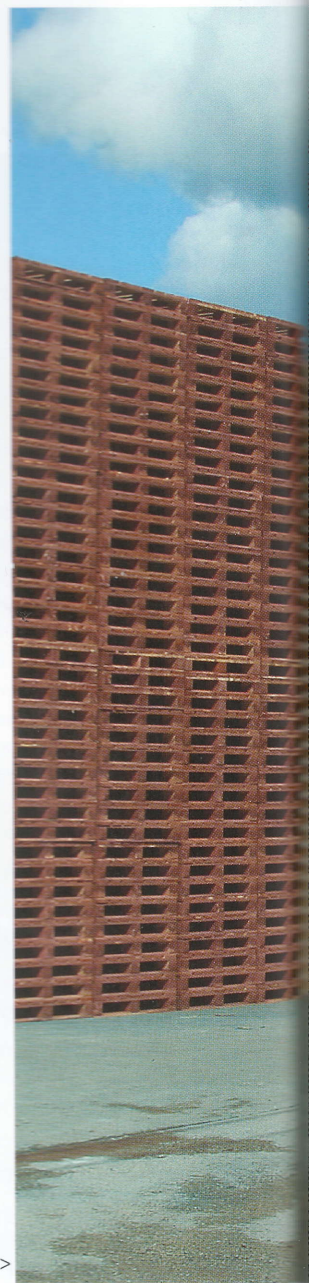
- Wood is natural and biodegradable
- Wood benefits the environment while growing: very much unlike the production of plastic or other oil-based material. JJS, for example, only sources wood from British forests which are all sustainably managed.
- Wood is renewable
- Wood uses less energy compared to alternative materials
- Wood products stores carbon

A great example of reusable packaging and efficient resource use

Pallets are not, unlike other packaging solutions, disposable products. In closed-loop systems, they can have a lifespan of over 30 years. During this time, they are reused again and again and are inspected and repaired regularly. Sourcing, production and repair processes are aligned with the principles of Circular Economy.

Pallets in the UK have comply with several environmental standards

British, FSC-sourced timber, ISO-14001 and PAS 2050





UK pallet facts and figures

1 PALLETS

- 250m pallets in circulation
- 42m new pallets produced per year (2016)
- 40m pallets repaired each year

2 WOOD TREATMENT*

- 70% of pallets are untreated (green)
- 25% heat treated
- 17% kiln dried and heat treated

**figures from 2016 survey of TIMCON members*

3 COST

- £4-£12 – sale price for pallet in 2018
- £1.82-£3.91 – average cost of inspecting and/or repairing pallet (2016)

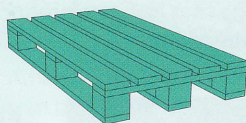
4 WOOD SOURCING

- 1.4m m³ of timber are consumed for pallets each year
- Over 70% of this timber is home-grown
- 28% of domestic timber production goes into the pallet and packaging sector.

Pallets' carbon footprint

James Jones have completed full life cycle assessments of their products, including pallets, to help clients strengthen their Corporate Social Responsibility. A study commissioned by TIMCON, Wood for Good and Skogs Industrierna showed that all types of wooden pallets assessed have a net negative carbon intensity, meaning that while a tree is growing, CO₂ is taken from the atmosphere and stored in the wood, rather than being emitted, as would be the case for the production of alternative materials such as plastic. There are CO₂ emissions associated with wooden pallets however, the majority of which come from energy consumed during manufacture.

30kg



The amount of CO₂ stored by one heavy-duty (green or heat/kiln-treated) pallet.

Equivalent to



20 hours of energy use for an average house



PICTURES: PAUL NEMETH



We have experienced a 60% rise in the cost of pallet timber we buy since 2016 and 70% of the pallet price is the cost of the raw material. This strong reliance on British timber makes the pallet and packaging sector very vulnerable to rising timber prices in our country. And Government's lack of delivering planting targets is extremely worrying!

Gil Covey, James Jones and Sons

>> nantly using parts of the tree that are not of prime interest to the domestic sawmilling industry, such as small logs or 'falling boards'. This is highly efficient and sees every part of a harvested tree used, therefore supporting the economic viability of the forest products sector.

Pallets are produced in 'green', with the option to heat-treat or kiln dry according to client specifications.

Pallets in closed-loop pallet pools are periodically recovered, inspected and repaired. JJS as a major subcontractor to the major pallet pools is involved in further streamlining this process so that pallets in good conditions are identified early in the inspection process and can directly be reused. This saves transport, labour and energy in the system.

At the end of a pallet's lifecycle, their components are reused or turned into biomass (JJS uses it for kiln-drying other pallets), therefore feeding resources back into the system.

Stephen Craig, JJS Group environmental manager, commented: "Through our recent investments in planting schemes, we are able to demonstrate best practice UKWAS and UK Woodland Carbon Code forest design and management.

"By fully linking our timber planting & harvesting activities, sawmill production and pallet manufacturing, with our pallet recovery, repair and fibre recycling operations, we can highlight our sustainable life-cycle business approach.

"Our initiatives ensure that our clients remain our key focus and are able to benefit from this approach to ensure their own CSR requirements are fully supported by James Jones & Sons Ltd."

www.jamesjones.co.uk/pallets

Sustainable process from start to finish



COMMENT

by **John Dye, President**, Timber Packaging & Pallet Confederation (TIMCON)

A product for our time

Wooden pallets have been the first choice for carrying goods safely around the world because of their strength, reliability and environmental credentials, for more than 60 years.

During this time, innovation in the way timber is harvested, sawn and manufactured has transformed the forest-based sector, which for our business has meant we are today able to produce pallets and packaging far faster and more efficiently. Investment in new technologies over time has allowed us to keep pace with lightning-fast modern supply chains.

The way our raw material is regarded has also changed. Even ten years ago, products made from wood were misunderstood - and vilified from some quarters as a result. Today, thanks to forest-based sectors lobbying and communicating well, and media coverage of the environmental damage caused by widespread use of plastics, government and consumers understand the value of using wood far better now.

This focus on the environment is likely to have an impact on the nature of consumer goods and packaging into the future. Recyclability and sustainability are more important to consumers, who demanding more products that tick these boxes, delivered to them in packaging that does, too. Wooden pallets and packaging have an important role to play - not just as an essential for safe transportation - but as part of a holistic sustainable package that includes product, packaging and logistics.

www.timcon.org



FTN WEB RESOURCES



Videos

TIMCON: Wood is good (3 videos)

Nature's packaging (USA)

WOOD FOR GOOD offers a range of videos and publications on why timber should be the material of choice

TIMCON Publications

Factsheet closed-loop pallet pools

Carbon intensity of green, heat treated and kiln dried/ heat-treated pallets

www.confor.org.uk/ftnweb