

GLOSSARY

Biofuel: Cellulose pulp isn't just used to make paper. It can also produce cellulosic ethanol, which is widely believed to be the next big thing in biofuels industry and could reduce our reliance on oil and gas.

Bioplastic: Plastic is a useful and versatile packaging option but thankfully nanocellulose offers a renewable and environmentally friendly solution so bioplastic can have all the plastic-like qualities we need.

Carbon dioxide: Trees need carbon dioxide for photosynthesis. As a result, they play an important role in the fight against climate change, acting as carbon sinks that lock away carbon long after they have been felled. It is only when wood is burnt or rots that its carbon is released.

Card: Paper card is an everyday wood-based product that fulfils many roles, from wishing someone a happy birthday to using it for school projects.

Charcoal: What's a weekend without a braai? Charcoal is produced when wood is heated in the absence of oxygen.

Clothes: Viscose and rayon fibre are manufactured from cellulose and can be made to feel like various natural fibres depending on the grade of fibre produced. This produces a sustainable tree-based alternative to cotton, wool, linen and silk.

Cream: Tall oil is produced from wood chips through a process called black liquor production, further reduction of the oil produces a fatty acid that can be made into plant-based soaps and creams.

Disinfectant: Tall oil is often mixed with pine oil to produce a pine oil disinfectant that is mildly antiseptic and effective against numerous fungi, bacteria and household germs.

Essential oils: Eucalyptus is one of the three tree species commercially farmed in South Africa. Oils from its leaves are used for respiratory issues, to disinfect wounds, heal cold sores and even as an antioxidant.

Eucalyptus: Commonly known as blue gum, is one of the three tree types commercially planted in South Africa. Eucalyptus is used in the pulping industry to make a range of products from paper to pill coatings.

Flavourings: Lignin, a by-product of the pulping process, is used in the production of artificial vanillin as demand for vanilla flavour has outstripped vanilla bean production.

Ice cream: Cellulose is used as a texturiser and emulsifier in many low-fat ice creams and yoghurt.

LCD Screens: Nanocellulose is already found in most LCD screens and could enable bendable screens in the future.

Lipstick: Another tall oil product that adds to a bit of colour to our lives. Wood-derived tall oil products are slowly replacing fossil fuel ones which is great for the environment and our lips.

Nappies: Wood is at the core of a disposable nappy, or at least cellulose pulp is. This is what gives the nappy its absorbent qualities.

Oxygen: Is essential to most life on earth and is produced by trees and plants during photosynthesis.

Packaging: Food cartons, envelopes, gift bags, cardboard boxes and the list keeps going on, it's hard to imagine a world without paper-based packaging.

Paint: Lignin offers an alternative to fossil fuels when it comes to producing primers for paints and what's more, the production process also has a lower carbon footprint making this a double win.

Pine: One of the three major tree types commercially planted in South Africa, pine varieties provide the saw milling and wood chipping industries with fast growing source of farmed wood.

Poles: One of the most obvious uses of farmed trees that requires very little manufacturing - it is hard to imagine a world without them, from telephone poles to fences.

Preservatives: In attempt to reduce waste in wood-based production processes, scientists have started looking at what can be produced from by-products. Pyrolytic extract, from the charcoal production process, has the potential to be used as a preservative in food.

Plywood: A high-quality and high-strength sheet material, plywood has multiple applications across numerous industries. Made up of multiple thin layers of wood, peeled from the tree and then glued with their grains lying in different directions, the wood is then baked before being pressed at high pressure to form a single panel.

Silviculture: The practice of growing and farming trees.

Sweetener: Xylitol is an alternative non-nutritive sweetener and substitute for sugar. As a by-product of the hemicellulose production process, xylitol is essentially a sugar alcohol that can be extracted from both eucalyptus and pine trees.

Sawlog: Logs that will be processed into lumber of all shapes and sizes for limitless uses – from furniture to roof trusses.

Tar: Wood tar is derived from the charcoal making process and has numerous applications, including the production of creosote, oils and pitch.

Toilet paper: Perhaps the wood-based product we would miss the most if timber production stopped tomorrow. We may take toilet paper for granted but could you imagine life without it?

Vitamins: Substances made from cellulose fibres can be used in the manufacturing of capsules for medicines and vitamins. Cellulose is also used to bind active ingredients of medicines and vitamins into tablet form.

Washing powder: Dissolving wood pulp (DWP) is a special type of cellulose and can be found as a filler and anti-caking agent in numerous washing powders.

Wattle: A tree type commercially planted in South Africa. Wattle bark is a source of tannin that is used by the leather industry.