



Money for old rope

A versatile crop with the power to assist us in the battle against climate change, hemp is not to be sniffed at, says Deborah Nicholls-Lee

HEMP, it's fair to say, has a reputation problem. When a plant comes from the *Cannabis sativa* family, preconceptions associated with its signature seven-fingered leaves—emblems of counterculture—can be hard to quash. However, digging a little deeper into the plant's heritage unearths an illustrious past.

From the Magna Carta to the King James Bible, many of our most important documents have been penned on hemp paper. As Rembrandt was creating masterpieces on hemp canvases, Samuel Pepys (1660–69), naval administrator to Charles II, was filling his famous diary with information about the quality and price of hemp as he secured crucial supplies for the King's fleet.

This versatile crop has been harvested since at least 10000BC, when the Chinese used the seeds in medicine and processed the fibrous stalks into bow strings, rope and paper. The Mesopotamians were weaving clothing from hemp from about 8000BC, yet Europe would have to wait more than 7,000 years before it was finally conveyed west on horse-drawn wagons via the Silk Road by the nomadic Scythians, fearsome, tattooed warriors originating from Siberia.

In time, our own fishermen and seafaring explorers discovered that hemp's long, strong fibres were ideal for ships' rigging and that the plant's fine flax could be fashioned into sails and nets. Seamstresses also used hemp thread to weave textiles, clothing our ancestors in hard-wearing 'hempenspun'.

As British hemp reached peak production in the 18th century, hemp and flax mills dotted the UK, with strongholds in Dorset and East Anglia. The labour-intensive process provided numerous jobs: harvesting, retting (softening

in water), hackling (fluffing the fibres through combing), spinning and weaving.

Hemp's decline, when cotton and jute outpriced it, battered the rural communities where livelihoods depended on it. However, it was the 1971 Misuse of Drugs Act that finally finished the plant off, when hemp—unable to shrug off its association with its psychoactive cousin marijuana—was swept up in the broad strokes of the war on drugs. Despite hemp's re-legalisation in 1993, its flowers and leaves still cannot be sold and cultivation licences remain hard fought and short in duration.

‘Hemp’s dense crop creates four times more paper per square metre than trees and grows back in a fraction of the time’

Before that, hemp was firmly in favour. To shore up supplies of rope for his navy, Henry VIII forced farmers to devote a portion of their land to flax or hemp cultivation. Centuries later, in 1942, the US launched a Hemp for Victory campaign to yield fibres for parachute webbing and rope as part of the war effort. Today, in the battle against climate change, hemp is once again being called up for service, as this fast-growing plant absorbs 15 tons of CO₂ per hectare—twice as much as a forest—and reaches maturity after only three or four months. Hemp's dense crop creates four times more



paper per square metre than trees and grows back in a fraction of the time.

The plant's deep, fine roots help break up the soil and balance out nutrients, making it a useful break crop. Once harvested, hemp's many uses include soap, ink, fuel, cosmetics, bioplastics and construction materials. Its oil-rich seeds are packed with nutrients, too. CBD (cannabidiol) extract, used in wellbeing products, can be imported, but cannot be produced by British growers.

Five hundred years since Henry VIII's edict, Britain is once again taking steps to reintroduce industrial hemp as a major crop.



Spinning around: hemp fibre prepared for spinning at Gourock Ropeworks, Port Glasgow, in 1946—now, the crop is making a comeback

The Government is backing the HEMP-30 project, led by the Biorenewables Development Centre and the University of York, with the aim of increasing industrial hemp cultivation from 800 hectares (1,976 acres) to 80,000 (197,684 acres) within a decade, generating a huge, homegrown supply of eco-friendly biomass materials.

On a 600-hectare (1,482-acre) farm in a lush Northumberland valley, Alistair McLeod and Hugh Wrangham, founders of seed- and oil-producer Hemp North, have been growing

hemp in the Harehope estate's sandy loam and clay since 2021. 'Farming hemp is lost knowledge that we are quickly trying to regain,' states Mr Wrangham, who has been impressed with this rediscovered crop. 'It is so late sown, the time we get over winter and into spring is amazing. Hemp isn't susceptible to the same pests and diseases as our usual cereal crops and doesn't need any synthetic chemicals to grow well.'

Consumer interest is high, but licensing and overseas competition are challenges.

'The Home Office doesn't seem to understand farming very well in that they make farmers apply after January, yet all their cropping plans will have been decided months before. It also uses postcodes for field locations, which means one field may be licensed, but the field next door cannot, due to being in a different postcode.' Hemp has huge potential, believes Mr Wrangham. 'If the market responds to British-grown products and licensing issues are resolved, it will become big business in the UK.' ➤

I think you're dope

- **It's impossible to get high on hemp.** Although it comes from the cannabis plant, its Tetrahydrocannabinol (THC) content is too low for it to be psychoactive

- Hemp can grow as fast as 5cm (2½in) a day and can reach heights of up to 4.5 metres (14ft 8in)

- **Hemp is six times more bend resistant than steel and has been used in car body-work since the 1940s**

- Gram for gram, hemp seeds contain more protein than meat and more Omega-3 than fish

- **Cotton cultivation needs about twice as much water as hemp**

- In ancient Egypt, hemp suppositories were thought to cure haemorrhoids, whereas ancient China used hemp oil to restore hair growth



Entrepreneurs across the country are looking again at this plant that grows abundantly and without pesticides. Babble & Hemp of London has been weaving soft, sustainable hemp shirts since 2019 and East Yorkshire Hemp's product range includes low-dust animal bedding popular with horse owners. Other early adopters include Sir Paul McCartney, who is growing organic hemp on his East Sussex farm, and The King, whose innovative Natural House in Hertfordshire, built in 2012 by The Prince's Trust, used sheep's wool and hemp to insulate its walls and floors.

London-based design firm Youngman Lovell will be using UK-sourced hemp in the walls and roofs of its new bio-based, carbon-negative houses. Creative director Charlie Lovell is a big fan of hemp as a building material. 'To have an entirely natural product that is a fantastic insulator, with no harsh chemicals that degrade over time for us to breathe in, creates a very good internal climate,' he says.

Mr Lovell's enthusiasm for hemp was heightened by a visit to Margent Farm, a hemp farm in Cambridgeshire. The farmhouse was built with corrugated hemp cladding and hempcrete, a sustainable alternative to concrete (which is responsible for 1.5% of the UK's carbon emissions) produced by mixing the hurd (the stalk's core) with water and lime. Hempcrete is breathable, fire resistant and sequesters carbon throughout its lifespan. 'It's amazing acoustically, but hempcrete also keeps the moisture content in the air at about 50%', Mr Lovell notes. 'Hemp really is a wonder material.'

Its future, however, hangs in the balance. 'I think this is the beginning of a curve, but prices need to come down,' contends Mr Lovell. Scaling up will help, he says, but licensing must be relaxed. 'To get the licence, you have to go to the same department as firearms and narcotics, which is kind of mad, simply to grow what is essentially a weed.'

Farmers in Bridport in Dorset, where the mild climate and fertile soils made the area a hub for hemp cultivation in the 18th century, have risen to the challenge, undertaking encouraging field trials last year, in collaboration with Wessex Community Assets (WCA), to explore the re-establishment of the hemp industry in the region. 'There are attitudes to hemp that need to change and there are emerging markets for the hemp that we need to allow to build up a bit,' pointed out Lucy Beasley of WCA, when speaking in a recent documentary about the project. 'It's the very beginning, but I think we've simply got to keep going.'

Above: King John signs the Magna Carta, drawn up on hemp paper.
Below: Babble & Hemp's Dawn Yellow and Midnight Blue hemp shirts

