

Why hemp has yet to reach a high

It is durable, needs low financial and labour inputs, helps condition soil and encourages a stable local economy. So why is hemp so little used?

HEMP'S environmental credentials are indisputable. It grows better in organic systems than in conventional ones. It smothers weeds and controls pests, clearing the land for other crops. It improves the structure of the soil, its strong roots controlling erosion. It returns nutrients to the land if processed in the field and purports even to 'clean up' soil contaminated with heavy metals. From a processing point of view, hemp requires low financial and labour inputs; it is one of a minority of textile fibre crops that can be grown in the UK and so it helps meet needs from local resources and encourage a stable, local economy. The fibre is durable and yarn-to-fabric processing is similar to other vegetable fibres. So why, as it has such great potential, is so little hemp used?

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that hemp is *Cannabis sativa*, the recreational drug, and its cultivation is illegal in many parts of the world. In the UK, growing hemp was outlawed by the 1971 Misuse of Drugs Act, but more recently, plant breeders have developed varieties which are low in the psychoactive compound Tetrahydrocannabinol (THC) and farmers are beginning to reintroduce hemp, growing these varieties under special licence.

Over and above the fact that relatively little hemp is grown and the fabric has almost no market presence, the main obstacle to successfully developing hemp textiles is the process of extracting fibre from the plant's stem, retting. Once the hemp has been harvested, the fibre is separated from the stem's woody core. In conventional treatments this process uses naturally occurring bacteria or fungi, or chemicals, which break down the pectins that bind the fibres to the stem allowing them to be released. Traditionally this is done in water or by lying the crop on the ground. This latter method, 'dew retting' – which from an environmental perspective is preferable to water retting (as water retting is polluting) – depends on the right cocktail of heat and moisture and can take anywhere from one to six weeks. But it is this cocktail of heat and moisture that is most problematic. Hemp is not harvested until mid-August and the weather's unpredictability makes dew retting risky – farmers can easily lose their whole crop.



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Other retting techniques are being developed, ranging from mechanical fibre separation, enzyme retting, potassium tank retting to separation by ultrasonics, yet few of these techniques have been perfected. While in conventional processing the stems are kept parallel throughout harvesting, retting and subsequent cleaning, the mechanical method tangles the fibre up. The difference is crucial: only by keeping the stems aligned can a fine yarn and high quality fabric be gained.

Short fibres make a coarser fabric which perhaps is why hemp has a 'sack cloth' image. This market image is all-important. Most designers will either not have heard of hemp; know of its associations to the drug culture; and/or think its only use is sacking. But if hemp's market image was revisited and processing techniques refined, hemp could perhaps begin to fulfil its promise as a local, environmentally responsible textile fibre with very distinctive élan. **ed**