

# The Environmental Impact Of The Laws Against Marijuana

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Earth Day has come and gone, with little if any attention being given to a single step that, more than any other, could contribute on a large scale to reducing environmental degradation. The idea -- making it legal once again to grow hemp for fiber -- is controversial, to be sure, but as Jack Herer, founder of the organization Help Eliminate Marijuana Prohibition keeps saying: "Prove us wrong." So far nobody has been able to do so.

The attempt to eradicate marijuana, or hemp, has not been successful, by a long shot. But it has ensured that hemp will only be grown for its buds, which contain the mild hallucinogen, tetra hydra cannabinol (THC). If hemp were legal, it would be grown for a wide variety of purposes.

The stalk of the hemp plant has been used for fiber for thousands of years. The seeds are a source of oil that has been used for paint, varnish, and fine lubricating oils, as well as protein suitable for human and animal consumption. Neither contains THC. Since the hemp plant has been effectively unavailable for these uses since about 1937, we have turned to other resources, many non-renewable. Using them has been far more damaging to the environment.

For example, hemp fiber is at least 10 times stronger than cotton. Hemp has not only been used to manufacture canvas (the word is derived from "cannabis"), but linen, rope, and thread. Cotton replaced hemp as the dominate fiber in this country after the cotton gin, which mechanically separated the usable fibers from the seeds, was invented. Getting the fibers out of hemp took hard manual labor; it wasn't until the 1930's that machines for separating usable fibers from hemp stems were perfected.

Hemp has few if any natural enemies; that's one reason some call it "weed." Cotton, by contrast can be grown commercially only with lots of fertilizers and pesticides, and growing it exhausts the soil. About half the pesticides used in the world are used on cotton - which also requires lots of water. If it were legal to cultivate hemp for fiber, we would be using far fewer pesticides.

About half the forests in the world have been cut down since the 1930's to make paper. A US Department of Agriculture bulletin in 1916 explained how paper could be made from the pulpy "hurds" in the hemp stalk, and predicted that if machinery were developed to separate the hurds from the fibers, a thriving domestic paper industry could be developed based on hemp cultivation. The machinery developed in the 1930's did just that.

According to the USDA, 10,000 acres planted in

hemp will yield as much paper as 40,000 acres planted in trees. Fewer caustic or toxic chemicals are required to make paper from hemp than to make paper from trees.

The hemp seed was long used as a base for paints, varnishes, and other finishes - items for which we routinely use petrochemicals or synthetics. In 1935, 116 million pounds of hempseed were used in America for paint and varnish. The seed is also the second richest plant source of protein, and is much cheaper to cultivate than soybean. It could feed most of the earth's domestic animals.

A favorite enthusiasm of environmentalists is alternative fuels produced from biomass. Corn, sugarcane, and kenaf are the plants most often used, because they grow so much in a single season that they produce lots of biomass to be refined and processed into methane or methanol. But they are still more expensive than petroleum-based fuels.

Hemp, however, is the world's champion photosynthesizer. It converts the sun's energy into biomass more efficiently than any other plant, with at least four times the biomass/cellulose potential of corn or kenaf. It could compete economically with petroleum-based fuels.

Coal and petrochemicals got their energy from the sun, thousands of years ago, storing energy as the plants decayed. When they are burned, they release pollutants into the atmosphere. Biomass fuel releases fewer pollutants and the fuel source spends the growing season removing carbon dioxide from the atmosphere through photosynthesis; biomass fuels contain no sulphur.

The environmental impact of banning hemp then has been the use of far more environmentally damaging alternatives. If hemp were legal, it could become an economically viable and low-polluting source of fuel, paints and varnishes, textiles and fabrics, paper and even food. Hemp might replace trees as raw material for press-board or particle board construction material. You could even make PVC pipe from hemp.

In 1988, the chief administrative law judge of the Drug Enforcement Administration wrote: "There is no record in the extensive medical literature describing a proven, documented cannabis-induced fatality... In strict medical terms, marijuana is far safer than many foods we commonly consume." The dangers of hemp are far from overwhelming.

Re-legalizing hemp could be the single most important environmental reform we could undertake. Prove me wrong? Sure, if you can do it with facts.