

Industrial Hemp: Legislative Briefing

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Many states are struggling with the issue of legalizing industrial hemp production. Although a few state legislatures (notably North Dakota, Minnesota and Maryland) have authorized marketing and production studies, only one (Hawaii) has established a research plot and none have commercial hemp production.

Hemp advocates and opponents remain deeply divided over the issue. Opponents claim that low or lack of expected profitability would not compensate for the additional costs they believe would come with hemp legalization. Hemp proponents counter that industrial hemp could be profitable if the industry were allowed to fully develop as a commercial enterprise.

Key issues include:

- *Can you tell hemp from marijuana?*
- *How large and how reliable is the demand for hemp?*
- *What type of competition would the US face from the international market?*
- *What kind of investment would occur in hemp manufacturing?*
- *Would industrial hemp production be profitable for US farmers?*

Hemp and Marijuana

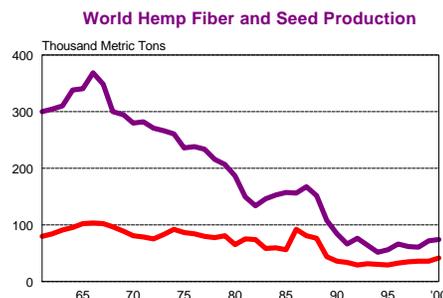
The US federal government prohibits the unlicensed production of *cannabis sativa L.*, which includes both industrial hemp and marijuana. Industrial hemp is simply those varieties of *cannabis sativa L.* which contain less than 1% THC (a psychoactive component). Any industrial hemp production must be licensed by the Drug Enforcement Agency.

Growing side-by-side, industrial hemp and marijuana look identical and could only be differentiated by chemical analysis. Hemp grown for seed production would look identical

to marijuana growing in a field. However, hemp grown for fiber would be spaced very close together and would look very different from marijuana. Cross-fertilization impacts between hemp and marijuana would be minimal, such as changes in THC levels, if new or certified seed were used each planting season.

The Demand for Hemp

World production of hemp has stabilized after years of decline, due to competition from competing alternatives such as other natural and synthetic fibers and oils.



While the U.S. imports negligible amounts of hemp fiber, yarn and fabric, we do import many finished hemp products, most of which have a relatively small hemp component. If hemp remains a fad or a niche market, the US could continue to meet weak domestic demand with low-cost imports.

US hemp imports have remained below 2 mil pounds (about \$3 mil), which could be produced from 4-5,000 acres of hemp.

Global Competition

Nearly every country produces hemp, from Chile to France. The world market price for semi-processed hemp fiber is about \$1155 mt or less than 60 cents per pound, below most estimated U.S. production costs.

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Importantly, because the volume of the hemp market is small, modest changes in hemp production can cause large price fluctuations. For example, in the mid to late 1980's, China significantly increased hemp seed production and nearly cut world prices in half. It is very difficult for most farmers to endure that kind of price, thus income, fluctuation.

Canada's 35,000 acres of hemp production in 1999 appears to have flooded the market, causing one U.S. firm to go bankrupt and Canadian farmers to reduce hemp production in 2000.

Competition from other hemp producers is very strong, where labor costs are much lower than the U.S. China continues to dominate both world hemp fiber and hemp seed production. Through a complicated system of commodity price supports, the Chinese government can dramatically alter the amount of hemp grown by changing relative price subsidies.

Other countries provide production and marketing subsidies for their hemp farmers. For example, in 1998 the European Union provided production subsidies equivalent to about \$222 per acre (down from \$346 the year before), costing the EU over \$30 million. The EU reduced hemp subsidies last year due to increases in hemp production without corresponding increases in hemp processing activity, and the concern that public monies were being used to cultivate marijuana.

US farmers would have to compete with low-cost producers on one-hand and subsidized producers on the other.

Investment in Hemp Manufacturing

Industrial hemp fiber and oil has a multiplicity of uses. While hemp is easily grown in a variety of climates and agronomic conditions, hemp processing costs severely restrict large-scale hemp use. Current hemp pulping methods are very expensive and

typically employ heavy mechanical and chemical processing. Despite hemp oil's promising qualities, hemp oil yields remain relatively low and difficult to store for long periods relative to other oil crops.

Consequently, the primary constraint in moving hemp from a fad or small niche market to one of larger-scale commercial success lies in processing costs. Yet, until the market exhibits strength through increased size and longevity, little incentive exists to improve the processing technology.

If processing technology remains the "hold-up" in expanding the market for hemp, who should fund this research? The private or the public sector? And what is the opportunity costs of doing so?

Although the US can import hemp at relatively low prices, there has been little interest in establishing hemp processing industries in the US. In fact, there is low investment in hemp processing around the world. Why does investment remain so small? The US is cost-competitive in many industries because of our ability to develop efficient marketing systems. With such small hemp demand, can we do that cost-effectively for the hemp industry?

Is Hemp Profitable for US Farmers?

The bottom line is we don't know for sure. But, in examining other countries experiences, it looks doubtful. The US has no hemp manufacturing industry to speak of, and demand is small and of questionable durability.

China has low-cost labor to dominate the hemp market and EU farmers rely on subsidies equal to about half the price of hemp. France has never outlawed hemp production, has a safe investment environment, and access to low-cost hemp from Eastern Europe and the former Soviet Union. Why do none of these countries have a thriving hemp industry? If we want to use hemp as a vehicle to re-vitalize rural America, the family farm, and local manufacturing – is hemp the answer?