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Vermont is the latest battleground in the fight for hemp

By Tim Johnson, Free Press Staff

Like most other products, hemp has its own trade associations. It has lobbyists. It has publicists. Together they churn out literature touting hemp's extraordinary versatility and its ecological and agronomic virtues — a kind of wonder crop.

Hemp does not have a political action committee, however, which could explain partly why the campaign to legalize industrial hemp in the United States hasn't gained much traction.

Advocates complain that American farmers are being shut out of a lucrative market. More than 30 countries grow hemp as an agricultural commodity, and hemp-planted fields in Canada — which legalized cultivation in 1998 — increased to 26,815 acres in 2010.

The United States "is the only industrialized country that will not allow its farmers the economic/environmental benefit" of growing hemp, laments Ben Brown, a farmer in Orwell.

"There are entire economies that can be built and sustained on hemp," Brown wrote in a recent email. "I see Vermont as a perfect prototype for determining just how much benefit we can harvest from one simple little plant."

Hemp can be cultivated for fiber or oilseed, and it is used to make thousands of products including drinks, skin butters, clothing and auto parts — and the market for hemp-based products continues to grow. The Hemp Industries Association estimates retail sales totaled about \$419 million last year.

Some of the clothing and body-care offerings can be seen in The Hempest, a store that has maintained a downtown presence in Burlington for about 10 years. The primary source of the hemp in those fabrics? China.

As for food, City Market sells two varieties of hemp milk ("dairy and soy free, tree nut free, gluten free, cholesterol free," reads a container). The source of the hemp? Canada.

Legalizing industrial hemp is not the same as legalizing marijuana.

The initiatives sometimes are conflated in the public mind, but that's inevitable, considering the mixed signals from government and the fact that hemp and marijuana are the same species of plant, *Cannabis sativa*.

Hemp and marijuana are different varieties of that species, a key difference being that industrial hemp has a THC content so low, you can't get high if you smoke it. THC (delta 9 tetrahydrocannabinol) is the primary psychoactive component of marijuana.

This difference is moot to the federal government, which enforces a Controlled Substances Act that classifies all cannabis plants as marijuana and places strict controls on the cultivation of hemp. To

grow hemp legally, a farmer must obtain a permit from the Drug Enforcement Administration. And the DEA pretty much never grants permits, so industrial hemp — an American staple from colonial times, with an output that peaked during World War II — is not grown commercially in this country.

The difference is apparent to Vermont lawmakers, however. The Legislature might balk at legalizing marijuana, but it's on record in favor of regulated hemp cultivation. Vermont is one of nine states that have authorized hemp — but state authorization is contingent on federal approval, which Congress habitually is reluctant to grant.

Hemp advocates are undeterred.

Members of the Vermont delegation are silent on this issue, but Rural Vermont, a nonprofit farmers' organization of about 900 members, hopes to bring them around. As the state organization that spearheads hemp legalization, Rural Vermont took the initiative as far as it could in Montpelier: a 2008 law authorizing cultivation and establishing the regulatory machinery, a 2009 resolution calling on Congress to drop the legal barrier and leave regulation to the states.

Now, Rural Vermont hopes to nudge Rep. Peter Welch, D-Vt., to sign on as a co-sponsor of a hemp-legalization bill in the U.S. House — but for now, Welch is staying on the sidelines of the debate.

Hemp in Canada

Christian Boisjoly is growing 23 acres of hemp in Lanoraie, Quebec, northeast of Montreal. Some farmers in his region are switching from tobacco to hemp, he said, primarily for fiber, but they are hopeful about the market for biofuel.

"It's growing well," he said. "This particular cultivar is different from the one in the west." Most Canadian hemp is grown in Alberta, Saskatchewan and Manitoba; western Canada has pioneered food applications, from pasta and salad dressings to frozen desserts.

The crop is regulated closely. The government tests THC levels, checks growers' criminal records. A minimum of 10 acres is required for a permit. Cross-pollination of legal hemp with illegal marijuana in theory could raise THC levels in hemp above Canada's 0.3 percent legal threshold and lower THC levels in marijuana to make it less potent. (THC in seized marijuana has registered at 10 percent or more in U.S. government assays.) In fact, Boisjoly said, the legal plant so outnumbers the illegal that cross-pollination works only to marijuana's disadvantage, so any marijuana growers want to stay well clear of hemp fields.

"We're pushing the pushers away," Boisjoly said with a chuckle.

Hemp's agricultural virtues? "It doesn't need a lot of water," he said. "None of us irrigate. It doesn't need any pesticides." It does, however, require nitrogen fertilizer.

All of which is affirmed by a U.S. Department of Agriculture research paper on hemp, which states that hemp grows well in land producing high corn yields. The paper adds: "Under favorable conditions, hemp is very competitive with weeds so herbicides are generally unnecessary."

Then there's the climate-change factor. Boisjoly, who's also a Quebec director of the Canada Hemp Trade Alliance, calls hemp "a huge carbon pump that takes carbon from the atmosphere and sticks it into straw."

A report titled "Industrial Hemp" by Agriculture and Agri-food Canada concludes enthusiastically: "Hemp's agronomic and environment attributes are remarkable. ... It absorbs carbon dioxide five times more efficiently than the same acreage of forest and it matures in three to four months." Hemp history

Rural Vermont's annual meeting this spring happened to fall during Hemp History Week (May 2-8),

billed by its organizers as "a national grassroots education campaign ... designed to renew strong support for hemp farming and processing in the U.S."

A table offered home-baked hemp-seed cookies and booklets of hemp recipes, along with free product samples, such as hemp protein powder, water-soluble hemp protein concentrate, shelled hemp seed, and of course, hemp milk.

The main issue of the day was food sovereignty, but hemp remains one of Rural Vermont's longstanding campaigns. As organizer Robb Kidd put it, hemp could be an extra crop and revenue source for farmers, given that it can be used for food, fuel and fiber.

He said Rural Vermont has a list of 127 farmers who have said they're interested in growing hemp. Among them is Johnny Vitko, a chicken farmer in Warren.

"For me as a small farmer the advantages are that I can manage a crop without the use of large machines," Vitko wrote in an email. "Hemp is a complete protein and has all the amino acids and is omega 3-6 rich. This makes for healthier livestock. For me, that would be chickens that lay healthier eggs. I would be able to produce much of my own feed and that would reduce a lot of carbon produced from transport and farming of my current feed."

Handouts at the annual meeting featured informational nuggets from Hemp History Week: "George Washington and Thomas Jefferson grew hemp ... Jefferson drafted the Declaration of Independence on hemp paper ... Henry Ford experimented with hemp to build car bodies ... During World War II, U.S. farmers grew about one million acres of hemp as part of a federally subsidized program called 'Hemp for Victory.'"

"Hemp for Victory," a 1942 promotional film, invokes hemp's place in U.S. history (Old Ironsides' sails, rigging and anchor rope came from hemp) and urges farmers to step up their production to supply the Navy in the war effort.

Hemp output reached an all-time high in 1943, then fell off after the war as imports resumed and the nation cracked down on marijuana. No U.S. production was reported after the late 1950s.

Many uses

The Hempest sells a range of clothing, footwear and body-care products.

The shirts made strictly from hemp have a rougher quality to the touch. They were more popular a decade or so ago, when the industry was getting started, said store manager Dana Begins. Now, most of the clothing is a blend — hemp combined with silk, bamboo or cotton.

On the counter are various hemp-based body lotions and soaps, including a spearmint-scented soap made in St. Johnsbury using hemp-seed oil.

"In Europe, they're using it for other things," Begins said, "like building materials." Promotional materials for hempcrete, a mixture of hemp fiber and lime, call it "an eco-friendly alternative to concrete."

Food and cosmetics producers, while emphasizing the low levels of THC in the hemp they process, have gone to some length to reassure consumers who might worry about trace amounts.

TestPledge, a voluntary consortium, promises that hemp nuts or hemp-oil products of member companies will not "cause confirmed positive drug tests for marijuana." Living Harvest of Portland, Ore., one of City Market's hemp-milk suppliers, goes further: "There is 0.00 percent THC in our products."

By some estimates, hemp is used in more than 25,000 products worldwide.

"There are so many uses for it, it seems silly we're not taking advantage of it," Begins said of the state of U.S. cultivation. "Our government is antiquated and behind the times as far as industrial hemp goes." Hoping for another co-sponsor

Hemp and marijuana are "indistinguishable by appearance," the USDA averred in its 2000 treatise on industrial hemp. The only way to tell them apart was by chemical analysis of THC content.

Since then, another way has emerged. DNA analysis has found that industrial hemp (bred for low THC) and marijuana (bred for high THC), vary genetically. That's not much use to on-the-spot law-enforcement inspectors, but it does buttress the hemp enthusiasts' contention that their celebrated plant really is different from its notorious twin.

The difference is clear to state Sen. Randy Brock, R-St. Albans, a co-sponsor of the Vermont Legislature's 2009 Joint Resolution that calls on Congress to redefine hemp in federal law as a "nonpsychoactive and genetically identifiable species of the genus Cannabis" and to let states replace the DEA as the crop's regulators.

"This is an industrial product," Brock said in a phone interview recently. "This is not marijuana or anything remotely related to a hallucinogenic product."

Brock called hemp a good, useful product that "could in fact be grown in Vermont."

"I have not been persuaded that there's any legitimate reason for banning it," he said.

With the state Legislature on board, Rural Vermont has turned its attention to Congress. Neither Sen. Patrick Leahy, D-Vt., nor Sen. Bernie Sanders, I-Vt., has taken a position regarding hemp legalization. Such legislation hasn't come before the Senate.

Industrial hemp's legislative prospects, such as they are, begin in the House. In each of the last four legislative sessions, Rep. Ron Paul, R-Texas, has introduced an "Industrial Hemp Farming Act." The current bill, H.R. 1831, effectively would legalize hemp-growing by excluding low-THC Cannabis from the Controlled Substances Act. When Paul introduced the bill in May, he had 22 co-sponsors — 20 of them Democrats, including the likes of liberals Barney Frank, Dennis Kucinich, George Miller and Tammy Baldwin.

No sign of Vermont's Peter Welch.

"In conjunction with Vote Hemp, Rural Vermont is encouraging Rep. Peter Welch to cosponsor H.R. 1831," Rural Vermont declares on its website under the headline, "Hemp Action August 2011," adding brightly:

"A member of the U.S. House Agricultural committee, Rep. Welch is ideally suited to move this legislation forward."

Asked where Welch stands on hemp legalization, his communications director, Scott Corriell, replied:

"Congressman Welch has not taken a position on H.R. 1831."

Why not?

"Peter wants to talk to Ron Paul about the bill, but Congressman Paul has been a little busy lately," Coriell said.

He was referring to the Republican presidential campaign in Iowa, where Paul — a libertarian and something of a maverick — finished a close second in the Ames straw poll.

"Peter will talk with him when Congress is back in session," Coriell said.

When they talk, Welch might want to clarify that the subject in question is hemp — not the other variety of Cannabis, which happens to be covered by another bill co-sponsored by Paul and Frank and introduced a month after the hemp legislation was.

H.R. 2306, "Ending Federal Marijuana Prohibition Act of 2011," would remove marijuana and THC from the Controlled Substances Act. But that's another story.

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Additional Facts

Resources

ARTICLES:

["Hemp as an agricultural commodity."](#) a report by Congressional Research Service, Dec. 2010

["Industrial Hemp."](#) Agriculture and Agri-Food Canada

["Genetic variation in hemp and marijuana \(Cannabis sativa L.\) according to amplified fragment length polymorphisms. Journal of Forensic Sciences. Vol. 51. No. 2 \(2006\)."](#)

["Environmental Costs of Hemp Prohibition in the United States."](#) by Skaidra Smith-Heisters, Journal of Industrial Hemp, 2008

["Hemp for Victory."](#) USDA promotional film to support the war effort (1942):

["America's Harried Hemp History."](#) by John Dvorak

WEBSITES:

[Hemp Industries Association — a major U.S. trade organization](#)

[North American Industrial Hemp Council. dedicated "to reestablish and expand the use of industrial hemp"](#)

[Vote Hemp — the hemp industry's political wing](#)

[The Hemp test pledge](#)

[Drug Enforcement Administration](#)

LEGISLATION:

Vermont's ["Act Relating to Industrial Hemp."](#) (House Bill 267, enacted in 2008)

Vermont Legislature's 2009 [Joint Resolution calling on the federal government to legalize industrial hemp](#)

Ron Paul's bill, H.R. 1831, ["Industrial Hemp Farming Act of 2011"](#)
