# Hemp


# for Wisconsin

To:
Rep. Jeffrey Mursau, Chair
Assembly Committee on Rural Economic Development
Wisconsin State Assembly

Testimony of Thomas Murphy, Vote Hemp National Outreach Coordinator in support of:
AB 146 "An Act relating to: creating a committee to study the uses of industrial hemp."

Delivered via email to:

Andrew Potts
Committee Clerk
Assembly Committee on Rural Economic Development
Andrew.Potts@legis.state.wi.us

copies to all Committee members

This testimony is printed on Vanguard Recycled Plus paper made from 90% post-consumer waste (recycled office paper) and 10% Hemp/Flax.

Hemp in Wisconsin
Testimony of Thomas Murphy
National Outreach Coordinator, Vote Hemp in support of
AB 146

Vote Hemp recommends that the Committee vote to pass AB 146 "An Act relating to: creating a committee to study the uses of industrial hemp."

Hemp farming is an agricultural issue and related issues are health, environment, and economic development. Hemp is a legitimate agricultural crop with many high quality food, fiber, and fuel products made from it. Health Canada statistics show that 48,060 acres of industrial hemp were produced in Canada in 2006. Most of the acreage was oilseed varieties, but some was fiber varieties.

Wisconsin has a long history of hemp production. The last hemp crop grown in the United States was grown in Wisconsin in 1958. Here is a quote from an acquaintance of mine:

"The Rens mill in Central Wisconsin made its last purchase of raw fiber in the fall of 1957, but did not finish processing this material until the following spring. Meanwhile 2 LaCrosse County farmers obtained Licenses for hemp cover crops for spring 1958 planting, used to eradicate Canada Thistle from corn fields. There's no record indicating they attempted to market this material."

There is more historical information on the Vote Hemp Wisconsin State Page. The link to this Web page is on the last page of this testimony. There are a number of historic and modern reports, studies, and letters about the Wisconsin hemp industry on the page. One of the documents is a copy of the very rare WWII farmer's guide "What about growing HEMP?" by A.H. Wright of the The University of Wisconsin, Madison.

A low-input crop requiring little or no herbicides or pesticides, industrial hemp has many environmental and economic benefits. Hemp is an earth-friendly source of paper, fiberboard, textiles, auto parts, insulation, petroleum-free plastics and fuel. Hemp fields clean the air and the soil, and hemp products can be recycled and composted. Hemp seed (along with the oil pressed from the seed) is a healthy ingredient for food and body care products, providing a rich source of protein, vitamin E, dietary fiber, and omega-3 essential fatty acids.

In Canada hemp growers are licensed and their fields are registered with their GPS coordinates. Police can spot check these fields without notice, so surreptitiously growing high-THC varieties of *Cannabis* is not advised and can result in the loss of a hemp growing license.

In Canada there in no THC limit for research purposes. For regular commercial production the THC limit is 0.3%. The United Nations defines industrial hemp as having a THC level below 1%. It is hoped that the the state will consider a higher THC limit for research purposes so that research of higher THC varieties, most commonly older eastern European varieties, in development of localized varieties may be carried out. Many state studies on hemp have shown the economic benefit of hemp research and development. Health Canada also puts out a list of approved varieties each year. The List of Approved Cultivars for the 2007 Growing Season is available on the Vote Hemp Canadian Federal Regulation & Legislation Information page. The link is on the last page of my testimony.

North Dakota was one of the first states to pass industrial hemp legislation and has done so five times. North Dakota's first hemp law, passed in 1997, directed that the State University Agriculture Experiment Station to do a study of industrial hemp production. In 1999 a pair of bills were passed, one a resolution urging Congress to acknowledge the difference between the agricultural crop known as industrial hemp and its drug-type relative, the second a bill to authorize the production of industrial hemp and remove it from the noxious weed list. In 2001 another resolution was passed similar to the 1999 resolution and in 2005 a bill was passed allowing for feral hemp seed collection

and breeding at NDSU.

The North Dakota Department of Agriculture (NDDA) is now issuing licenses to farmers to grow hemp under existing state law and NDDA rules. I presented testimony in favor of these rules at a hearing in Bismarck last June. There are currently five new hemp bills pending or passed in the state.

We hope that 2007 will be the year that North Dakota returns to growing industrial hemp. The first state to produce industrial hemp in 50 years, North Dakota will have an opportunity to build an infrastructure of industrial hemp processing plants and value-added applications while the industry is still its infancy. North Dakota is well placed to become a major producer of industrial hemp and industrial hemp products for North America and the world. Wisconsin could be well positioned in industrial hemp farming, processing, and research & development as well.

Market research obtained by Vote Hemp shows that hemp food sales grew by at least $1.93 million to a total of $7.46 million from August 2005 to August 2006. The sales data was collected by the market research firm SPINS, but under-represents actual sales due to the niche status of hemp foods. The SPINS report shows that hemp food sales grew 35% during the prior reporting period. The previous report showed a 50% sales growth. Vote Hemp estimates that the total value of annual sales in hemp foods is in the range of 14-16 million dollars.

The appetite for industrial hemp is growing in all sectors of the industry. In the automotive industry, industrial hemp is used in the natural fiber composites that have rapidly replaced fiberglass as the material of choice for vehicle interiors. FlexForm, an Indiana manufacturer whose hemp-content materials are found in an estimated 2.5 million vehicles in North America today, uses approximately 250,000 pounds of hemp fiber per year. The company says industrial hemp could easily take a greater share of the 4 million pounds of natural fiber it uses yearly, as "hemp fiber possesses physical properties beneficial to our natural fiber based composites." In addition, FlexForm says it would "gladly expand our domestic purchases."

While industrial hemp's beneficial properties are already being exploited by US companies manufacturing food, body care, automotive, paper, and textile products, there are several uses of industrial hemp that will not be realized until domestic production takes root. For instance, in the UK and EU, but not in the US, the woody core of the industrial hemp plant is being used as a low-cost, highly effective building material (concrete, fiberboard) and animal bedding. High-cellulose industrial hemp also has great potential as a plant-based source of plastic, butanol, and ethanol.

These value-added applications will make industrial hemp a great addition to Wisconsin's rural economy.

There seems to be some confusion in the United States as to what Industrial Hemp is.

Is Industrial Hemp marijuana? No. Even though they both come from *Cannabis sativa* L., the varieties that are used to make Industrial Hemp products (seed, fiber, etc.) and those that are used to make marijuana (flowering tops and leaves) are distinctly different. They are scientifically different and are cultivated in very different ways.

What is marijuana? Marijuana is a preparation made from varieties of *Cannabis sativa* L. that are intended for medical and recreational drug use. They are grown for their THC content, primarily in the flowering tops and to a lesser extent in the leaves. *Cannabis sativa* L. grown for marijuana is characterized by being high in THC (delta-9 tetrahydrocannabinol) and low in CBD (cannabidiol). The THC content is greater than 1%, usually 3% to 20%. The ratio of CBD to THC is less than one.

What is Industrial Hemp? Industrial Hemp is a number of varieties of *Cannabis sativa* L. that are intended for agricultural and industrial purposes. They are grown for their seed and fiber content as well as the resulting byproducts such as oil, seed cake, hurds, etc. Industrial Hemp is characterized by being low in THC (delta-9 tetrahydrocannabinol) and high in CBD (cannabidiol). THC is less than 1% and in Canada and Europe the current legal level for cultivation is 0.3%. The ratio of CBD to THC is greater than one.

There is an international exemption for industrial hemp:

The United Nations Single Convention on Narcotic Drugs, 1961 as amended by the 1972 Protocol Amending the Single Convention on Narcotic Drugs, 1961 states in Article 28:

"2. This Convention shall not apply to the cultivation of the cannabis plant exclusively for industrial purposes (fibre and seed) or horticultural purposes."

The United States is a party to the Single Convention.

There are exemptions for hemp products in the U.S. as well:

In the Controlled Substances Act, 21 U.S.C. Section 802 - Definition (16) states:

"The term "marihuana" means all parts of the plant Cannabis sativa L., whether growing or not; the seeds thereof; the resin extracted from any part of such plant; and every compound, manufacture, salt, derivative, mixture, or preparation of such plant, its seeds or resin. Such term does not include the mature stalks of such plant, fiber produced from such stalks, oil or cake made from the seeds of such plant, any other compound, manufacture, salt, derivative, mixture, or preparation of such mature stalks (except the resin extracted therefrom), fiber, oil, or cake, or the sterilized seed of such plant which is incapable of germination."

In writing the Controlled Substances Act, and its predecessor the Marihuana Tax Act, it was the clear intent of Congress to exempt the products stated. It was also the intention of Congress that hemp would continue to be grown in the U.S.

Hemp was grown in the United States until 1957, with the last crop being grown in Wisconsin for the Matt Rens Hemp Company as documented in Dennis Rens' self published book "America's Hemp King." A link to an online version of this book is on the last page of my testimony.

In December 1999 the first hemp seeds were planted in the Hawaii Industrial Hemp Project managed by Dr. Dave West of GamETec. Hemp was grown on a research basis in this project until 2003.

In December of 2000 the National Conference of State Legislatures passed a resolution:

"NCSL strongly urges the U.S. Department of Agriculture (USDA), the Drug Enforcement Administration (DEA) and the Office of National Drug Control Policy to collaboratively develop and adopt an official definition of industrial hemp, as per those nations currently producing hemp. NCSL is also strongly urging Congress to amend U.S. Code sections 21 U.S.C. Sec. 812 (10) and 21 U.S.C. Sec. 841 to distinguish between industrial hemp and marijuana varieties of cannabis as they relate to production, possession, delivery and intended use."

"NCSL requests the USDA and the DEA to review the procedures under which their Canadian counterparts are authorized to sanction the commercial development of industrial hemp. NCSL is also strongly urging Congress statutorily to direct the DEA to revise its policies to be less restrictive and to allow states to establish state regulatory programs, thus fostering the development of

domestic hemp production by American farmers and manufacturers."

In September 2003 the National Association of State Departments of Agriculture (NASDA) adopted in support of industrial hemp farming in the U.S. The resolution stated:

"NASDA supports revisions to the federal rules and regulations, authorizing commercial production of industrial hemp."

"NASDA urges the U.S. Department of Agriculture (USDA), the Drug Enforcement Administration (DEA) and the Office of National Drug Control Policy (ONDCP) to collaboratively develop and adopt an official definition of industrial hemp that comports with definitions currently used by countries producing hemp. NASDA also urges Congress to statutorily distinguish between industrial hemp and marijuana and to direct the DEA to revise its policies to allow USDA to establish a regulatory program that allows the development of domestic industrial hemp production by American farmers and manufacturers."

Wisconsin farmers and business people could profit from the growth of a hemp industry in Wisconsin. Many businesses in The U.S. now make a myriad of products from hemp and if the raw materials were grown in Wisconsin we would all benefit and keep the money here in the U.S.

Farms, both large and small, would benefit from this profitable rotation crop that has deep roots which bring up additional nutrients, leaves the soil in good tilth, and weed free. Hemp growth requires very little pesticides and herbicides, of course none if organically grown. Contrary to popular belief hemp does require good soil and a reasonable amount of water to grow, it is not a miracle crop. Hemp may not save the planet, but it may help keep the agricultural way of life possible in Wisconsin and slow down the sprawl resulting from the loss of profitable farms.

If Wisconsin had a hemp research center, conferences and symposiums would bring in respected scientists, researchers, farmers, and business people from all over the world to learn and share information, which would be a great economic benefit to the state. Hemp seed and oil, with its excellent Omega-3 and Omega-6 fatty acid profile, could help make specialty food and cosmetic business thrive. The paper industry would have additional feedstock to add to recycled paper to make it stronger, processed fiber could be sent to other states for production of automobile parts, and many other sectors of our economy could also benefit from the reintroduction of this versatile crop.

Wisconsin should be a leader in the research and development of industrial hemp. I hope that this legislation is passed for the good of all people in the state of Wisconsin.

Vote Hemp recommends that the Committee vote to pass AB 146 "An Act relating to: creating a committee to study the uses of industrial hemp."

Thank you very much for the opportunity to present my testimony to the Committee. If I can provide and other information to help in the passage of this bill please feel free to contact me and I will do what I can to help.

Sincerely,

Thomas M. Murphy
National Outreach Coordinator
Vote Hemp, Inc.

Contact information:

Thomas Murphy
phone: 207-542-4998
email: tom@votehemp.com

Additional resources:

Vote Hemp: http://www.votehemp.com
- Download Center: http://www.votehemp.com/download_center.html
- State Hemp Legislation: http://www.votehemp.com/state.html
- NASDA Resolution: http://www.votehemp.com/nasda_policy.html
- Canadian Federal Regulation & Legislation Information: http://www.votehemp.com/canada.html
- Wisconsin State Page: http://www.votehemp.com/state/wisconsin.html

Hemp Industries Association
http://thehia.org/

TestPledge
http://www.testpledge.com/

North American Industrial Hemp Council
http://naihc.org/

The Hemp Report http://www.hempreport.com

IndustrialHemp.net http://www.industrialhemp.net

Hemp in Wisconsin
http://www.gametec.com/hemp/Hemp.in.Wis.html

America's Hemp King: Matt Rens (especially good and has the 1957 date for last crop)
http://gametec.com/hemp/Rens.hempstory.Wis/

Canadian Industrial Hemp regulations
http://laws.justice.gc.ca/en/C-38.8/SOR-98-156/index.html

Alberta Agriculture and Food - Industrial Hemp Production Rebounding
http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/econ9631

Hemp as an Agricultural Commodity
By Jean M. Rawson
Specialist in Agricultural Policy
Resources, Science, and Industry Division
July 8, 2005
Congressional Research Service - CRS Report for Congress
Order Code RL32725
http://opencrs.cdt.org/document/RL32725

Hemp: A New Crop with New Uses for North America
By Ernest Small and David Marcus
http://www.hort.purdue.edu/newcrop/ncnu02/v5-284.html HTML
http://www.hort.purdue.edu/newcrop/ncnu02/pdf/small.pdf PDF file 14.1MB