

Vote Record

AB0679

38

Assembly - Committee on Agriculture

Date: 2/28/02

Bill Number: AB 679

Moved by: Reynolds

Seconded by: Loeffelholz

Motion: passage

Committee Member

Aye

No

Absent Not Voting

Rep. Alvin Ott, Chair	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Eugene Hahn	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. John Ainsworth	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Jerry Petrowski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Steve Kestell	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Scott Suder	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Gabe Loeffelholz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Garey Bies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. J.A. Hines	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Barbara Gronemus	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Joe Plouff	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Marty Reynolds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. John Steinbrink	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Julie Lassa	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Marlin Schneider	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Mary Hubler	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Totals:

13 ~~13~~

3

0

0

Motion Carried

Motion Failed

### Fiscal Estimate - 2001 Session

Original       Updated       Corrected       Supplemental

<b>LRB Number</b> 01-2476/2	<b>Introduction Number</b> AB-679
<b>Subject</b> Authorize UW to conduct research on, and require UW to study, industrial hemp	
<b>Fiscal Effect</b>	
<b>State:</b>	
<input checked="" type="checkbox"/> No State Fiscal Effect <input type="checkbox"/> Indeterminate <input type="checkbox"/> Increase Existing Appropriations <input type="checkbox"/> Increase Existing Revenues <input type="checkbox"/> Increase Costs - May be possible to absorb within agency's budget <input type="checkbox"/> Decrease Existing Appropriations <input type="checkbox"/> Decrease Existing Revenues <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Create New Appropriations <input type="checkbox"/> Decrease Costs	
<b>Local:</b>	
<input type="checkbox"/> No Local Government Costs <input type="checkbox"/> Indeterminate 1. <input type="checkbox"/> Increase Costs      3. <input type="checkbox"/> Increase Revenue      5. Types of Local Government Units Affected <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory <input type="checkbox"/> Towns <input type="checkbox"/> Village <input type="checkbox"/> Cities 2. <input type="checkbox"/> Decrease Costs      4. <input type="checkbox"/> Decrease Revenue <input type="checkbox"/> Counties <input type="checkbox"/> Others <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory <input type="checkbox"/> School Districts <input type="checkbox"/> WTCS Districts	
<b>Fund Sources Affected</b>	
<input type="checkbox"/> GPR <input type="checkbox"/> FED <input type="checkbox"/> PRO <input type="checkbox"/> PRS <input type="checkbox"/> SEG <input type="checkbox"/> SEGS	
<b>Affected Ch. 20 Appropriations</b>	
<b>Agency/Prepared By</b> DOJ/ JoAnna Richard (608) 267-1932	<b>Authorized Signature</b> JoAnna Richard (608) 267-1932
<b>Date</b> 12/18/01	

**Fiscal Estimate Narratives**

**DOJ 12/18/01**

LRB Number <b>01-2476/2</b>	Introduction Number <b>AB-679</b>	Estimate Type <b>Original</b>
<b>Subject</b> Authorize UW to conduct research on, and require UW to study, industrial hemp		

**Assumptions Used in Arriving at Fiscal Estimate**

This bill merely requires the Attorney General to consult with the Department of Agriculture, Trade and Consumer Protection on the rules governing the growing of industrial hemp. DATCP appears to have all the requirements of notification, etc. Therefore, the Department of Justice does not anticipate that this bill will have a fiscal effect.

**Long-Range Fiscal Implications**



**Fiscal Estimate Narratives**  
**DATCP 1/7/02**

LRB Number 01-2476/2	Introduction Number AB-679	Estimate Type Original
<b>Subject</b> Authorize UW to conduct research on, and require UW to study, industrial hemp		

**Assumptions Used in Arriving at Fiscal Estimate**

The bill requires the Department of Agriculture, Trade and Consumer Protection to promulgate rules in consultation with the attorney general. The rules will address notification of local law enforcement agencies of the industrial hemp field locations, and the grower's name and address; inspection of industrial hemp fields, and laboratory testing to insure that the tetrahydrocannabinol (THC) concentration is below the regulation level; and methods for obtaining and monitoring the use and transfer of industrial hemp seeds. The amount of staff time to develop the rules would be .25 FTE.

If these rules are implemented, assuming the growers would register with the department, there would be a one time fee of \$10,000 to set up an e-notification system to notify 50-100 local law enforcement authorities. The Department of Justice would provide the list of authorities to the Department. This system would require .5 FTE to maintain.

An inspector, following the appropriate protocol, would collect samples and submit them to the laboratory for analysis of THC content. Canada has developed methods for field sampling and laboratory testing of THC. In Canada, each separate plot requires a separate sample. Inspection and delivery would take 1 FTE if we assume 250 growers and 2 fields per grower. At 250 growers with 2 fields, there would be one composite sample taken from a minimum of 30 plants in each field. This adds up to 500 samples for lab analysis. Presently, only one laboratory in the U.S. has the approval of the U.S. Drug Enforcement Agency to conduct analysis for the THC content of industrial hemp. Sample analysis costs about \$150 (2001) for one sample. [Health Canada, "Industrial Hemp Technical Manual: Standard Operating Procedures for Sampling, Testing and Processing Methodology," 28pp. [www.hempfood.com/techmanual.html](http://www.hempfood.com/techmanual.html).] This puts the total expense of lab analysis for one year at \$75,000.

The Department of Agriculture, Trade and Consumer Protection laboratory does not have the available space, ventilation, or electrical capacity to add this testing. Construction costs on a new laboratory facility to house a THC testing unit, plus current testing programs, would require a capital outlay of approximately fourteen million dollars.

If the testing were performed at the Department laboratory there would be additional resource costs. There would be a need for an initial outlay of approximately \$300,000 in testing equipment. This testing equipment would have a limited life and need to be replaced in seven years. It also is likely that only specially trained staff holding special Drug Enforcement Agency (DEA) licenses would be allowed to do this type of testing. The addition of 1.0 FTE Laboratory Technician and 1.0 FTE Chemists would require \$71,000 annually. Laboratory supply costs for the testing would be \$4,000 per year.

**Assumptions:**

50-100 local law enforcement authorities  
250 growers  
500 samples sent to a lab  
1.0 FTE for inspection and sampling - \$61,400 salary and fringe; \$14,800 support costs  
2.0 FTE laboratory staff - \$71,000 salary and fringe; \$4,000 laboratory supplies  
\$75,000 laboratory analysis (PRS)

**Long-Range Fiscal Implications**

Replacement of laboratory testing equipment in 7 years would be \$300,000.

## Fiscal Estimate Worksheet - 2001 Session

Detailed Estimate of Annual Fiscal Effect

Original     
  Updated     
  Corrected     
  Supplemental

<b>LRB Number</b> 01-2476/2		<b>Introduction Number</b> AB-679	
<b>Subject</b>			
Authorize UW to conduct research on, and require UW to study, industrial hemp			
<b>I. One-time Costs or Revenue Impacts for State and/or Local Government (do not include in annualized fiscal effect):</b>			
Set up an email notification system for local law enforcement - \$10,000 .25 FTE for rule writing; \$10,300 salary & fringe.			
<b>II. Annualized Costs:</b>		<b>Annualized Fiscal Impact on funds from:</b>	
		Increased Costs	Decreased Costs
<b>A. State Costs by Category</b>			
State Operations - Salaries and Fringes		\$132,400	
(FTE Position Changes)		(2.5 FTE)	
State Operations - Other Costs		93,800	
Local Assistance			
Aids to Individuals or Organizations			
<b>TOTAL State Costs by Category</b>		<b>\$226,200</b>	<b>\$</b>
<b>B. State Costs by Source of Funds</b>			
GPR			
FED			
PRO/PRS (226,200)		226,200	
SEG/SEG-S			
<b>III. State Revenues - Complete this only when proposal will increase or decrease state revenues (e.g., tax increase, decrease in license fee, etc.)</b>			
		Increased Rev	Decreased Rev
GPR Taxes		\$	\$
GPR Earned			
FED			
PRO/PRS (151,200)		151,200	
SEG/SEG-S			
<b>TOTAL State Revenues</b>		<b>\$151,200</b>	<b>\$</b>
<b>NET ANNUALIZED FISCAL IMPACT</b>			
		<u>State</u>	<u>Local</u>
NET CHANGE IN COSTS		\$226,200	\$
NET CHANGE IN REVENUE		\$151,200	\$
<b>Agency/Prepared By</b>		<b>Authorized Signature</b>	<b>Date</b>
DATCP/ Melody Walker (608) 224-4586		Barb Knapp (608) 224-4746	1/4/02

**Kalies, Beata**

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**From:** Russ Weisensel [rusmarw@chorus.net]

**Sent:** Tuesday, January 15, 2002 2:44 PM

**To:** Rep.Ott@legis.state.wi.us

**Subject:** Ind Hemp Hearing

Dear Al:

I regret that I won't be able to make this hearing. The WI Agribusiness annual meeting is on that same day. Would you please distribute the following statement to your committee and make copies available to the press at the hearing if possible. Thanks!

**WISCONSIN LEGISLATIVE INITIATIVE FOR INDUSTRIAL HEMP**

*FIGHTING 60 YEARS OF MISINFORMATION WITH 10,000 YEARS OF HISTORY AND FACTS*

Coordinator: Russ Weisensel (608) 837-5596 Fax (608) 834-1756 E-mail:

rusmarw@chorus.net

This initiative is endorsed by the following organizations:

**Wisconsin National Farmers Organization -----Ron Statz (608) 643-3341**

**Wisconsin Agribusiness Council -----Amy Winters (608) 294-5450**

**Wisconsin Federation of Cooperatives -----John Manske (608) 258-4400**

**Wisconsin Farmers Union -----Robert Denman (715) 723-551**

**Wisconsin Fertilizer & Chemical Association-----Betsy Ahner (608) 249-4070**

**! OUR SUPPORT is GROWING !**

January 17, 2002 To: Assembly Committee on Agriculture Hearing Statement on 2001 - 2002 AB 679

In addition to the core supporters of our Industrial Hemp Initiative listed above, the following have also indicated their support **Michael Fields Agriculture Research Institute, Wisconsin Business Innovation Corporation, Wisconsin Corn Growers Association, WI Crop Improvement Association, Wisconsin Farm Bureau, Wisconsin State Grange, Wisconsin Women for Agriculture**, and many individuals including: UW CALS Dean Emeritus **Neal Jorgensen** and **Will Hughes**, now with the Marketing Division of DATCP

The Board of Directors of the **Northwest WI Regional Planning Commission**, on October 27 1999, unanimously passed a resolution supporting legislative, budgeting and research efforts to reintroduce industrial hemp in Wisconsin. The resolution included support for endeavors in Washington D.C. and Wisconsin to allow our farmers to grow industrial hemp under a simple regulatory system no more restrictive than in Canada. (The NWRPC represents 10 WI Counties and Native American Tribal Units.)

A similar resolution in support of fiber hemp as an alternate crop was passed by the **Board of the Wisconsin Department of Agriculture, Trade and Consumer Protection**, on January 25, 2000.

In March 2000, the **USDA's North Central Resource Conservation and Development Association, Inc.** met in Green Bay. This group included representatives from local **RC&D Councils in IL, ID, IA, MI, MN, OH and WI**. They unanimously endorsed production of industrial hemp and supported national legislation that directs the DEA and National

01/16/2002

Office of Drug Control Policy to adopt a new definition of industrial hemp which recognizes industrial hemp as an agricultural crop. They also proposed that industrial hemp should be regulated and controlled by the USDA, not the DEA. A few week later, The Glacierland ( NE WI ) RC&D Council also adopted a strongly worded resolution in support of Industrial Hemp.

This support is widespread because of Industrial Hemp's benefits:

**For Agriculture** - A major alternate cash crop to corn and soybeans - an excellent crop in rotation to help control weeds, insects and disease - Wisconsin with its history of specialty crops and past experience with hemp is ideally suited for this crop.

**For the Environment** - Substitute fibers - Less chemical use - No herbicides needed.

**For the Economy** - Local processing plants - New products - Value-added products

The State of WI, through its ADD grants, has recently supported growing lingonberries and hazelnuts, as well as some other minor crops. While these efforts are great, their likelihood for major economic benefit and major acreage pales in comparison to that of Industrial Hemp. Hemp oil and seed have virtually unlimited uses. Hemp fiber can be used for woven and non-woven fabrics, paper, carpeting, a strengthening component in plastics and in manufactured and/or extruded wood building products. The latter uses probably have the greatest potential for Wisconsin.

A concern with AB 679 – Any bill which requires funding will be difficult to pass given the current budget deficit.

I believe the North American Industrial Hemp Council. ( NAIHC ) is working in Washington DC to establish a protocol within the USDA's FSA for growing hemp, and to have hemp with low THC deregulated by the DEA as a controlled substance. Should this happen private funding would be available to establish markets. Wisconsin's agricultural community might best be served by legislative support of the NAIHC's efforts.

Respectively Submitted, Russ Weisensel

*Allwood  
Machinery*

8311 Triad Dr.,  
Greensboro NC 27409  
665-336-0001

PO Box 432,  
Medford, WI 54451  
715-748-5356

State Assemblyman Al Ott  
Chair person, Committee on Agriculture  
Wisconsin Legislative Assembly  
State Capitol  
Madison WI 53702

Dear Sir or Madam:

In regards to your upcoming committee meeting concerning industrial hemp, I would like to take a few moments to educate you on a few uses for hemp for which you may not be aware.

I would assume others with better credentials than I, have been informing you of the benefits of hemp as a crop. Some of these benefits are the ability to produce more than 3 tons per acre of high protein animal feed in 90 days. The ability to shade out undesirable weeds as a cover crop, eliminating the need for pesticides. The ability to income from marginal soils with minimal labor for part time farms. Also, the ability of industrial hemp to pollinate illegal marijuana plants and thus drastically reducing the THC content and its subsequent use as a recreational substance.

I am a sales engineer for a machinery company based out of Greensboro NC, with my office being located in Medford WI, (Taylor County). One machinery line I represent uses industrial fiber such as straw or hemp to produce high-grade particleboard of fiberboard for cabinets, furniture, moldings and flooring. A small mill located in Wisconsin that converted hemp into board products would employ up to 100 people and would add an additional 1 to 3 million dollars to the agricultural community in the vicinity of the plant. Last year I completed an 8 month research project funded by an Agricultural Department grant, that developed formulations and samples of such a board product.

Board produced from hemp would in 1 season draw as much as 200,000 tons of carbon dioxide from the air and sequester it as board, thus reducing greenhouse gasses. Board currently produced from wood fiber actually uses immature trees that have already sequestered carbon dioxide and that can be expected to continue to do so if left to grow to maturity. Furthermore, approximately ½ the carbon from these trees is left behind in the woods or sludge piles, to decay and release the carbon that is already sequestered. Industrial hemp could have a big effect on reducing global warming.

You should also be aware that industrial hemp is already being used to reinforce plastics in several European luxury automobiles, and if their was enough fiber available, entire automobile bodies could be produced from this lightweight, strong and recyclable product.

Also be aware that hemp has successfully been used to produce fuel pellets for pellet stoves in Europe. Pellet stoves and fireplaces are similar to traditional wood burning devices except that by using pellets they are clean, clean burning and can run for days on a single charge of pellets. It is foreseeable that hemp pellets can be substituted for coal in industrial and power plant boilers thus reducing the worlds dependence on fossil fuels and the resultant damage to the environment.

Other uses for hemp are for food additives, oils, specialty foods, cosmetics and soaps. Also hemp can be used to produce high-grade paper that needs no chlorine to whiten it and thus produces no dioxin (the declaration of independence was written on hemp). Hemp is one of the best fibers available for textiles, especially carpet.

To date the principal holdback on these many uses has been the limited supply of hemp and the uncertainty of the supply. This is because of the large capital investment required for plants to produce the products and the need to be sure this investment will yield returns for the long term. Going hand and hand with this long-term period of capitol returns will of course be a long-term need for labor in these plants.

I have included a couple of samples of hemp based board. I also included some hemp bast fibers so you can see for yourself the outstanding strength this fiber has.

I hope that I have been of some assistance in aiding your understanding of the commercial uses for industrial hemp. Wisconsin stands to be a big winner once the misunderstandings between industrial hemp and its less savory cousin, marijuana, are resolved. After all 60 years ago Wisconsin was the largest producer of Industrial hemp in the US and it is ideally suited by climate to be so again. Because of its weight to volume ratio, it is more economical to build industrial operations that use hemp, in the area tat produces it, thus providing much needed high paying jobs in rural areas.

Should you need any further information on this subject, please feel free to call me at 715-748-5356. If I am unavailable (I travel a lot for work) just leave a message.

Yours Truly  
Mike Entenmann  
PO Box 432  
Medford WI, 54451  
715-748-5356  
Fax 715-748-6062  
Cell: 336-255-7925  
E-Mail [menten@tds.net](mailto:menten@tds.net)

# I N D U S T R I A L H E M P

George Washington and Thomas Jefferson both grew hemp. Ben Franklin owned a mill that made hemp paper. Thomas Jefferson drafted the Declaration of Independence on hemp paper. Industrial hemp (*Cannabis sativa*) was grown in the United States from the beginning of our nation's history up to the early 1950s. At that point, industrial hemp's legal status was changed when it was classified a dangerous drug. Subsequently, the growing and manufacture of industrial hemp products ended in the United States. Over 30 countries are currently developing a hemp industry to meet international fiber demands. The United States is not one of them.



*Why not give back American agriculture an old crop for which new technologies are creating a large market so that our farmers can take a step towards profitability and sustainability?* Erwin A. "Bud" Sholts, Chairman, North American Industrial Hemp Council (NAIHC); Principal, CTL Group, retired after 35 years with the Wisconsin Department of Agriculture, Trade and Consumer Protection.

Industrial hemp is not a drug crop. The international standard is that hemp of Cannabis with less than 1% THC is not marijuana. Strains that would likely be grown in the U.S. would be 0.3%, or less THC as is the case in Canada and the European Union.

*Planting marijuana anywhere near industrial hemp would be ill conceived. When hemp pollinates marijuana it transfers the genes for low drug content to developing seeds of the marijuana. The drug potency in the new marijuana plants will be about half that of the original marijuana. When hemp repeatedly crosses with new marijuana plants obtained each year, the drug content is repeatedly reduced in the plants. Thus, the drug content will become so low and uncertain that the derived marijuana will be useless as a drug plant.*

Dr. Paul G. Mahlberg, Professor, Department of Biology, Indiana University; NAIHC Director who has held a Drug Enforcement Administration research license for cannabis research for 32 years.

The U.S. needs to become more sustainable in terms of fibers, fuels, and energy. A strong and viable agriculture is important to the national security. Current trade deficits and near depression conditions in agriculture are not a good recipe for long term national economic security.



*Industrial hemp is a non-drug, earth-friendly, industrial crop that can help reduce greenhouse gas emissions and achieve a greater level of U.S. energy independence.* R. James Woolsey, Shea & Gardner, Washington, D.C.; Legal counsel to NAIHC and former Director of the Central Intelligence Agency, 1993-1996.

The widespread use of industrial hemp could result in numerous environmental benefits, including but not limited to:

- (1) Less reliance on fossil fuels,
- (2) more efficient use of energy,
- (3) less long-term atmospheric build-up of carbon dioxide,
- (4) soil redemption,
- (5) forest conservation,
- (6) agricultural pesticide use reduction,
- (7) dioxin and other pollution reduction,
- (8) landfill use reduction.

Hemp is superior to many other plants for a variety of uses.

Industrial hemp is being grown in Canada, just a few miles from the United States border. Raw hemp is being imported into the United States for manufacture of products. A growing market exists for Omega-3 rich hemp seed and oil products including snack foods, body care and supplements. Several thousand businesses, including Fortune 1000 firms, are participating in this market. With raw materials for these products being imported, U.S. farmers are deprived of the economic benefits stemming from these new markets.

The demand for building material is also growing at a rapid rate. A United Nations Study conducted in the mid-1990s predicts a world fiber shortage by 2006. Industrial hemp can be a major raw material for construction products and the machinery and technology are already available. Hemp oil could be a major

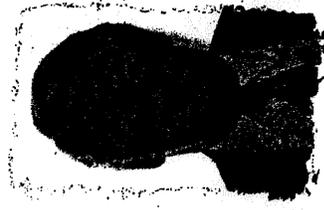
*player in reducing the fuel crisis. Hemp oil could be a very successful replacement for diesel oil.* William C. "Bill" Miller, President, Miller Consulting Group, Jackson, Mississippi; NAIHC Director and retired from Union Camp Corporation.

*Industrial hemp can be utilized quite effectively in paper manufacture.* Curtis P. Koster, Principal, Technology Evaluation & Economic Analysis, Malcolm Associates Investment Consultants, Mahwah, New Jersey; NAIHC Director and retiree from International Paper with his last job as Interdivisional Business Development Manager-Technology, still consults for International Paper.

*Industrial hemp, with its long natural fiber length, would be valuable in a composite with other fibers making the end product more flexible, facilitating a broader range of uses.* Dr. Shelby F. Thames, Distinguished University Research Professor, University of Southern Mississippi and former NAIHC Director.

A limiting factor in sustainable agriculture is the lack of profitable rotation crops. Hemp could be quite profitable as it fits well into the corn-soybean rotation. The University of Minnesota has suggested that the corn-soybean rotation is unsustainable. Farmers are losing money and equity on the corn-soybean rotation. In North Dakota, farmers have been making more by selling wheat straw to particleboard plants than from the wheat itself. Due to the bulkiness of hemp fiber, processing facilities will have to be built near the production areas. This will provide new jobs and investment in rural America.

*Major markets have opened up for hemp fiber in the United States. We are importing Canadian and European hemp, since it is illegal to grow hemp here in the United States.* Hugh S. McKee, President, Flaxcraft, Inc., Cresskill, New Jersey; NAIHC Director.



American farmers look across the border in Canada, which export hemp fiber to the U.S. and ask why can't we grow it. Jeffrey W. Gain, Blue Ridge Company, Hardin, Illinois; NAIHC Director and former CEO of both the National Corn Growers and American Soybean Association.

Industrial hemp might also be a profitable alternative crop to tobacco. A University of Kentucky study found that with the exception of tobacco, industrial hemp would be more profitable than any other Kentucky crop. I first became interested in industrial hemp as an alternative to tobacco. United States farmers need a new crop, which would have a consistent industrial market. I've

talked to many older Kentucky farmers who remember profitably growing industrial hemp. Gale Glenn, Durham, North Carolina; NAIHC Vice-Chair and former Kentucky tobacco and cattle farmer.

We are growing, processing and supplying hemp fiber on an increasing basis to replace glass fiber for composites in the automotive sector. Geof Kime, Hempline, Delaware, Ontario, NAIHC Director who runs a hemp fiber separation facility that in 1994 brought in the first crop of industrial hemp in North America since the 1950s after being instrumental in persuading the Canadian government to change its policy.

The largest maker of industrial carpet in the world is focused on producing carpet that is biodegradable and results in full-life cycle sustainability. Research proves that carpet made from industrial hemp is both biodegradable and recyclable. Dr. Raymond A. Berard, Senior Vice President of Technology, Interface Research Corporation, Kennesaw, Georgia and NAIHC Director.

Over half the states have enacted or are considering laws to either allow industrial hemp cultivation and/or petitioning the federal government to reclassify industrial hemp as no longer being legally defined as a drug. North Dakota has changed its laws to again allow for the growing of industrial hemp. My friend across the border in Manitoba, Canada, is making money raising industrial hemp. I am losing money by raising wheat. State Representative David Monson, (R-Osnabrock), Assistant majority leader, ND House of Representatives, NAIHC Director, farmer, full-time school superintendent, and a part-time insurance agent.

Encourage the DEA to remove industrial hemp from its classification as a drug. In meetings with the NAIHC, DEA officials have stated that it does not consider industrial hemp a drug or an enforcement problem. DEA has proposed new regulations that would allow industrial hemp to be grown. The new regulations have gotten sidetracked. These regulations need to be reviewed and an executive order issued to implement changes that will allow farmers to grow industrial hemp.

**NAIHC**  
NORTH AMERICAN  
INDUSTRIAL HEMP COUNCIL, INC.

**KENAN INSTITUTE**  
ENGINEERING, TECHNOLOGY & SCIENCE

Prepared by the North American Industrial Hemp Council, Inc. (NAIHC) with support provided by the Kenan Institute for Engineering, Technology & Science at NC State University.

The NAIHC can be reached at PO Box 259379  
Madison, WI 53725-9379  
Tel: (608) 258-0232 • [www.naihc.org](http://www.naihc.org)

Printed on hemp blend paper: 40% Hemp, 40% Flax and 20% Cotton

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THIS  
PAPER IS  
20% COTTON  
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AND

THOMAS  
JEFFERSON  
DRAFTED THE  
DECLARATION OF  
INDEPENDENCE  
ON HEMP PAPER

INDUSTRIAL HEMP

ALLOW FARMERS TO GROW INDUSTRIAL HEMP

## Information provided by [www.abouthemp.com](http://www.abouthemp.com)

### **Q. Is hemp the same as marijuana?**

**A.** No. Both hemp and marijuana come from the Cannabis Sativa plant. However, they are completely different with respect to stalk size, growing practices and most importantly, tetrahydrocannabinol (THC) content. THC, which comes from the flowering tops, is the active ingredient in marijuana and contributes to marijuana's medicinal value as well as its mood altering effects. The hemp plant, on the other hand, is harvested solely for its seed and stalk, not its low-THC flowers. THC values in marijuana run about 15-20%, while THC values in industrial hemp are usually standardized at 0.3%.

### **Q. Can you smoke hemp?**

**A.** No. The THC level in hemp is too low to provide any effect. Hemp products are made from the fibrous stalk and seed, whereas marijuana is made from the flowering tops. Even hemp's flowering tops are so low in THC that to obtain the amount of THC found in marijuana, one would have to smoke a 'joint' the size of a telephone pole and then only get a headache!

### **Q. Can you get high from eating hemp oil or putting it on your skin?**

**A.** Absolutely not. The amount of THC in hemp oil is too low to have any effect on the body or mind.

### **Q. Can you fail a drug test by eating hemp oil or putting it on your skin?**

**A.** No. You would have to drink 1/2 cup of pure hemp oil per day for several days, just to register near the cutoff level of 50 ppb THC in urine testing. As for putting it on your skin, even if you took a bath in pure hemp oil, it would have no effect. For the science on this, please visit [www.Votehemp.com](http://www.Votehemp.com) and click on "the issues."

### **Q. Is there a market for hemp?**

**A.** Yes, a fast growing one at that! In 1993 worldwide retail sales for hemp products were \$5 million. In 2000, worldwide retail sales were \$150 million, including \$80-90 million in the U.S. alone. Nevertheless, this is a tiny market compared to its potential and these statistics do not account for the widespread use of hemp as a raw material for industrial applications such as purchases by auto makers. As the world's population grows, increasing strain will be put on non-renewable resources such as forests and mineral deposits. The demand for renewable materials by consumers, industry and government will grow out of necessity. Hemp is as good or better than any other alternative for a given application and its quality, durability, efficiency or healthfulness speaks for itself.

Today's hemp market is constrained by legal restrictions, transportation costs and inefficient machinery. *However, the main problem confronting hemp is the lack of public awareness of its myriad benefits.* Naturally, this is tied to economics and incentive for investment in campaigns to educate the public. This website seeks to help fill the gap in public awareness. If you have read this far, you are one of the messengers; please email the address for this site to everyone you know: [www.abouthemp.com](http://www.abouthemp.com). For more information, email us at [ideas@abouthemp.com](mailto:ideas@abouthemp.com).

### **A brief rundown of hemp markets at the beginning of the millennium:**

**Textiles:** This is a very promising market. A significant number of entrepreneurial hemp clothing companies have already succeeded in the natural and organic boutique markets, while major designers like Armani, Calvin Klein and Ralph Lauren have been using hemp fabric in their collections for department stores and signature collections. As well, hemp fabrics have begun to invade the home furnishings market. Currently, the cotton industry is experiencing serious problems with crop insect infestation and increasing use of expensive and harmful chemicals to fight such threats. Processing technologies for bast fibers such as hemp are not as advanced as those for cotton, so the markets are smaller at the moment. However, research on improving this situation is being conducted around the world and an advance in the technology could spell a surge in global demand for hemp textiles.

**Food:** Hemp's success in the marketplace is visible in the human and animal feed sectors. Hemp oil, vegetable burgers, chutneys, pastas, salad dressings, flours etc. can be found on natural and organic as well as exclusive supermarket shelves. In addition, hemp has been used as a high protein feed supplement for cows and chickens. There is even a hemp-fed organic beef ranch in Kentucky. Consumers have already sent the message to food companies; they want better nutrition and cleaner ingredients. This market is growing rapidly and hemp is succeeding as this market flourishes.

**Cosmetics:** Hemp oil used in cosmetics is another bright spot for market potential. Hemp's essential fatty acid profile is key to hemp oil working well in a variety of cosmetic applications. Well known companies like Revlon, Dr. Bronners, Jason's, Kiss My Face, Supre, The Body Shop and Alterna have been successful with their lines of hemp oil based cosmetics and hair care products, while smaller, entrepreneurial concerns have flourished with soaps, lip balms, moisturizers and more. There is no end to the personal care products that can be made with hemp seed oil which is competitive with other high grade oils.

**Building Materials:** The market potential for hemp in building materials for home, industry and automotive is gigantic. Proof of this is the established and rapidly growing market for alternative fibers such as kenaf, straw and other natural materials used by industry. Once hemp can be grown on a large, economically competitive scale, manufacturers will see that it outperforms other natural fibers due to its length and

strength. The number of industrial applications for non-wood fibers is growing every day and hemp is the premier alternative source. To date, niche markets have been successfully developed in England and France for hemp to act as a replacement or additive to packaging, fiberboard, cement and even animal bedding.

**Solvents/Cleaners:** The market for natural cleaners has been in evidence for many years. Now industry is realizing what consumers have known all along; that a good cleaning job does not necessarily require chemicals. That means a rapidly growing natural cleaning market. Currently, some European companies are producing hemp oil based cleaners. Hemp oil detergents can be used in commercial grade laundries and dishwashers, as well as to clean engines and bodies of trains, automobiles and airplanes. Hemp based general purpose cleaners are effective alternatives for all household cleaning applications.

**Paper:** Currently, hemp paper, along with all non-wood based paper, is confined to the specialty and environmental niches. Low wood prices, subsidized by our government, and economies of scale issues prevent a low-cost hemp paper alternative. Hemp competes well in these niches and its use will grow as alternative paper markets begin to overtake the conventional ones over the next decade or two.

**Fuel:** Currently, existing structures for energy delivery are so cost efficient that biomass conversion to fuel is not economically feasible. However, this is expected to change as the world rethinks its energy policies and energy shortages continue. At the moment, there are a number of companies worldwide who are researching and doing test applications of biomass fuel who have taken an interest in hemp. The use of hemp in biomass will parallel the use of other biomass crops as we discover the huge potential of our farms to deliver our energy needs.

**Q. What exactly happened to make hemp illegal?**

**A.** In short, hemp was seen as a threat to entrenched business interests and was targeted for prohibition via taxation.

The history of how hemp became prohibited is an interesting and sobering case of powerful business-government-media alliances. Essentially, U.S. Government restrictions placed on hemp cultivation were a direct result of a sustained lobbying effort by influential petroleum and timber interests who saw hemp as a threat to their business. Combined with a massive media campaign to discredit hemp by associating it with marijuana and demonizing the latter, the effort was a success, altering the course of U.S. industry for the balance of the century.

Here's the story:

In the mid 1930's, technology for hemp fiber was reaching a technical and economical apex. The recent invention of the hemp decorticator, a machine akin to the cotton gin, would strip the outer fibers quickly and easily, allowing hemp to be processed more efficiently and on a larger scale than ever before.

At this time, DuPont Corporation had just patented processes for making plastics from oil and coal, as well as a new sulfate process for making paper from wood pulp-processes that sixty years hence would account for 80% of the company's products. Vertically integrated Hearst Paper Manufacturing Division, Kimberly Clark, St. Regis and other large timber, paper and newspaper holding companies had ties to vast forest resources. Hemp rope, hemp paper, hemp cellulose (plastics), hemp fiberboard, etc. was clearly a threat to these interests.

Twenty years earlier, William Randolph Hearst, who owned large tracts of timber for his newspaper operations, was angry at the seizure of 800,000 acres of prime Mexican timberland by Pancho Villa's army. Hearst engaged his newspaper resources to paint the image of the lazy, marijuana smoking Mexican, later extending the unflattering imagery to Negroes. For two decades, the public was exposed to sensationalist journalism that called marijuana "the devil's weed" and "assassin of youth", attributing to the plant an array of violent crimes as well as flaunting of white authority. Up until that time, the Northern Mexican colloquialism, *marijuana*, was not in common use. "Hemp" for industrial use, "cannabis" for medicinal use. After years of printing stories about "marijuana", the distinction between the two as well as the benefits of each had been effectively erased in the public's mind.

The U.S. Secretary of the Treasury in the 1930's was Andrew Mellon. Mellon, the owner of Mellon bank, happened to be the banker to DuPont Corporation, a company considered, even then, to be a prime client. In 1931, Andrew Mellon appointed Harry Anslinger, who would later marry Mellon's niece, to head the newly reorganized Federal Bureau of Narcotics and Dangerous Drugs or FBN (later evolving into the Drug Enforcement Agency or DEA).

Anslinger, once Assistant U.S. Commissioner on Prohibition, spent two years in secret drafting "Marijuana Tax Act", a bill that sought to establish prohibition through taxation. The bill, which made no distinction between hemp and cannabis, referring only to "marijuana", would not ban hemp or cannabis outright, but instead seek to prohibit its production by levying a tax on producers, distributors and manufacturers.

In 1937, the bill was submitted to the House Ways and Means Committee —the only committee that can send bills to the House floor without being subject to debate by other committees such as food and drug, agriculture, textiles, etc. The Chairman of the House Ways and Means Committee at the time was Robert L. Doughton, a DuPont ally.

The federal testimony entered into record by Anslinger and the FBN was based primarily on the same press clippings from the sensationalist journalism promulgated by Hearst's newspapers. Opposition from the American Medical Association, the National Oil Seed Institute and various hemp producers came too late because the bill had been prepared in secret.

DuPont's 1937 Annual Report urged continued investment in new, but not yet accepted petrochemical products. The report anticipated "radical changes" from the "revenue raising power of government...converted into an instrument for forcing acceptance of sudden new ideas of industrial and social reorganization", an allusion to using taxation as a tool to influence social and industrial policy.

**Q. Is it true that U.S. farmers were encouraged to grow hemp in World War II after hemp had been prohibited in 1937?**

**A.** Interestingly enough, in 1942 the U.S. Government did a complete reversal of policy when the Japanese took over the U.S. hemp supply in the Phillipines. Uncle Sam produced a movie called "Hemp for Victory" which instructed the farmer how to grow and harvest hemp (including how to become certified as a "Producer of Marihuana") and played on patriotic sentiments. After the war, the program was eliminated and never discussed again.

**Q. What other countries grow hemp?**

**A.** Hemp is grown today in 31 different countries. Almost every major industrialized nation permits hemp farming: Canada, Britain, France, Austria, Switzerland, Germany, Australia, South Africa, to name a few. In Eastern Europe, former Soviet Union and China, they never stopped growing hemp. These countries produce the supply of hemp imported into the U.S.

**Q. Do those countries have laws against marijuana?**

**A.** Yes. All the aforementioned countries make a distinction between hemp and marijuana. They have not experienced problems with enforcement due to hemp cultivation.

**Q. Why don't we simply make the same distinction in the U.S.?**

**A.** Because our state and local law enforcement agencies have lobbied the Office of National Drug Control Policy with complaints that they would have too much trouble distinguishing the fields of hemp from the fields of marijuana. Also, perhaps, because these same law enforcement agencies receive \$9,000,000 in federal funds to eradicate marijuana under the Cannabis Eradication Program. According to the government's own records, the Cannabis Eradication Program is ineffective in eradicating marijuana: 95 to 98 percent of what is destroyed is low THC "feral" or wild hemp.

**Q.** Could a marijuana grower disguise his crop by planting in a hemp field?

**A.** No. Any marijuana grower knows that the hemp would cross-pollinate with the marijuana plant and the marijuana's street value would be severely diminished. In fact, hemp pollen is so airborne that it would be unwise to plant marijuana within many miles of a hemp field. Also, since hemp stalks are grown close together to maximize fiber and seed production and marijuana stalks grow two feet apart to maximize flowers, any marijuana plant would be crushed or suffocated by the hemp leaf cover.

**Q.** Can hemp be used in medicine?

**A.** Hemp oil contains many healing and regenerative properties and may be eaten or applied topically to restore vital organs as well as heal various skin conditions. The essential fatty acids in hemp oil are critical in warding off various age related diseases. The therapeutic uses of hemp oil should not be confused with the therapeutic uses of medical marijuana. Currently, marijuana for medical purposes such as treatment or relief for asthma, glaucoma, nausea, anorexia, tumors, epilepsy, Parkinson's disease, multiple sclerosis, muscular dystrophy, migraines, etc. is now legal in seven U.S. States, deepening the absurdity of laws that prohibit growing hemp seed for oil in those same states.

# 1990-2000 Summary of Industrial Hemp Legislation Introduced and/or Passed in U.S. States

Compiled By: Agro Tech Communications, Inc., April 25, 2000

The following summaries are state by state, in relation to legislation introduced and/or passed supporting the development of a domestic industrial hemp industry in the United States.

## *Arkansas*

Passed Senate Resolution 13 on March 25, 1999 calling for University of Arkansas to study the potential uses of industrial hemp. The Division of Agriculture will report it's findings to the House and Senate Interim Committees on Agriculture and Economic Development no later than December 31, 2000.

## *California*

Passed House Resolution 32 on September 10, 1999 which resolved that the Assembly found and declared that industrial hemp is a vital sustainable, renewable resource that can be manufactured into a variety of products.

## *Colorado*

Colorado introduced pro-industrial hemp legislation in 1995, 1996, and 1997. No legislation has passed, although there is a strong constituency in the state supporting agricultural production of industrial hemp.

## *Hawaii*

Passed House Bill 32 on May 4, 1999 authorizing privately funded agronomic research to be conducted in the state. Hawaii also passed two resolutions on April 8, 1999 that requested the USDA and other federal agencies to deregulate and/or support the domestication of industrial hemp.

## *Idaho*

Legislation efforts are supported by the Idaho Farm Bureau and farmers throughout the state. Legislation was introduced, but did not pass in 2000.

## *Illinois*

Passed Senate Resolution 49 and House Resolution 168 in March of 1999. These resolutions formed a task force currently studying the crop.

## *Iowa*

Introduced House File 320 in 1999 calling for research at Iowa State University. No legislation has passed, although there is a strong constituency in the state supporting agricultural production of industrial hemp.

*Kansas*

Introduced legislation in 1997 and 1998. No legislation has passed, although there is a strong constituency in the state supporting agricultural production of industrial hemp.

*Kentucky*

Introduced legislation in 2000 to petition the DEA to revise federal policy concerning the production of industrial hemp in the state. No legislation has passed, although there is a strong constituency in the state supporting agricultural production of industrial hemp.

*Maryland*

Passed House Bill 374 on April 2, 2000 authorizing the commercial use of industrial hemp and promoting the production of industrial hemp.

*Minnesota*

Passed House File 1238 in 1999 supporting the production and research of industrial hemp.

*Missouri*

Introduced legislation in 1996, 1997, and 1998. No legislation has passed, although there is a strong constituency in the state supporting agricultural production of industrial hemp.

*Montana*

Passed House Resolution 2 in 1999 which urges the federal government to repeal restrictions on the production of industrial hemp as an agricultural and industrial product.

*New Hampshire*

Introduced legislation in 1998 and 1999. No legislation has passed, although there is a strong constituency in the state supporting agricultural production of industrial hemp.

*New Mexico*

Passed House Bill 104 in 1999 allocating fifty thousand dollars (\$50,000) for the study of industrial hemp as a commercial crop in the state.

*North Dakota*

Passed House Bill 1428 on April 17, 1999 giving farmers the right to grow, harvest, possess, process, sell and buy industrial hemp.

*Oregon*

Introduced House Bill 2933 in 1999. No legislation has passed, although there is a strong constituency in the state supporting agricultural production of industrial hemp.

*Pennsylvania*

No legislation has passed, although there is a strong constituency in the state supporting agricultural production of industrial hemp.

*Tennessee*

Introduced legislation in 1998, 1999 and 2000. No legislation has passed, although there is a strong constituency in the state supporting agricultural production of industrial hemp.

*Vermont*

Passed research legislation in 1997. Introduced further legislation in 1999, which did not pass.

*Virginia*

Passed House Joint Resolution 94 in 1999, which supports the production of industrial hemp in the United States.

*Wisconsin*

Introduced Assembly Joint Resolution 49 in 1999. No legislation has passed, although there is a strong constituency in the state supporting agricultural production of industrial hemp.

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Agro Tech Communications Inc.  
7777 Walnut Grove Rd., LLB4, Box50  
Memphis, Tennessee 38120 USA  
Ph: (901)309-1668 / Fax: (901)309-3823  
Email: fiber@netten.net

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## RESOLUTION IN SUPPORT OF FIBER HEMP AS AN ALTERNATE CROP

WHEREAS, a devastating drop in prices is threatening the survival of Wisconsin's family farms and Wisconsin's number one industry; and

WHEREAS, diversifying agriculture is a necessary goal for strengthening Wisconsin's economy; and

WHEREAS, in over 30 countries, including Canada, England, Germany and Japan, existing international treaties provide for the agricultural production and sale of industrial hemp as a valuable agricultural product; and

WHEREAS, industrial hemp refers to the more than 2 dozen strains of the cannabis plant that contain 1% or less tetrahydrocannabinol (THC) and therefore should not be confused with varieties of cannabis that have a high content of THC; and

WHEREAS, industrial hemp is a renewable resource that can grow to maturity in 100 days without the necessity of pesticides and can be grown as a rotation crop to control weeds, therefore improving the soil for the next crop; and

WHEREAS, the reintroduction of industrial hemp as a potential agronomic crop will have long-term economic benefits to the farmers who produce the hemp and the persons who utilize hemp for the manufacture of more than 25,000 products, including building materials, carpeting, pulp, paper products, oil, paints, cosmetics, plastics, automobile parts, fuel, animal feed, food, canvas, twine, clothing and rope; and

WHEREAS, during World War II, the U.S. department of agriculture carried out a nationwide-'Hemp for Victory' campaign, distributing 400,000 pounds of hempseeds to farmers to encourage the production of industrial hemp; and

WHEREAS, during this time, Wisconsin farmers produced more than 30,000 acres of industrial hemp and created processing plants in 10 different communities; and

WHEREAS, current federal policy prevents the -American agricultural production of industrial hemp while foreign hemp is being imported, at a loss of millions of dollars to American farmers; and

WHEREAS, this current federal policy is inconsistent with international agricultural policy and places an unnecessary financial restriction on Wisconsin agricultural community-, and

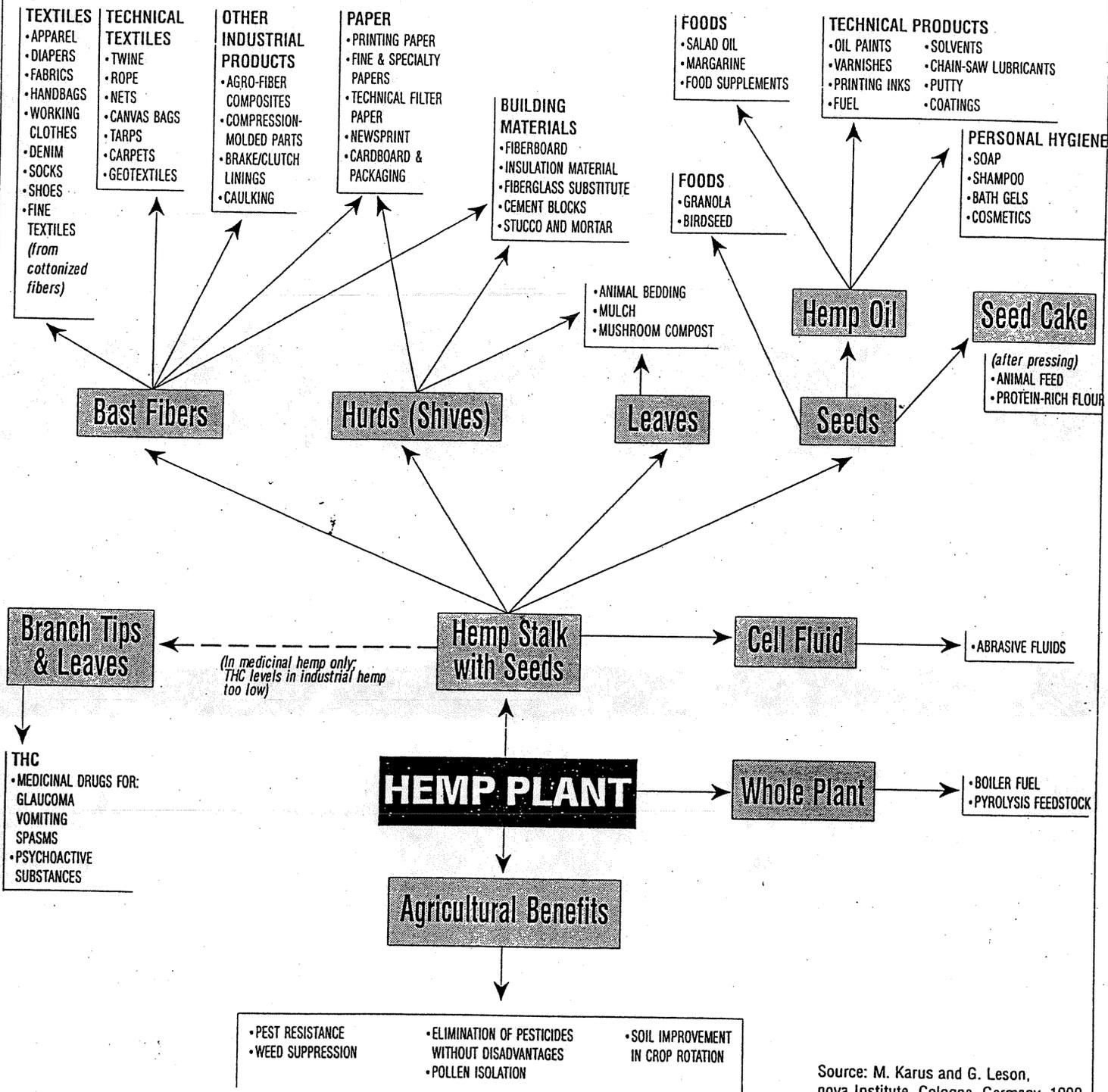
WHEREAS, Congress never intended to prohibit the production of industrial hemp when restricting the production, possession and use of marijuana;

NOW, THEREFORE, BE IT RESOLVED that the Board of Agriculture, Trade and Consumer Protection supports legislative, budgeting and research efforts to reintroduce industrial hemp production in our state; and

BE IT FURTHER RESOLVED that the Board supports endeavors in Washington, DC and Wisconsin to allow our farmers to grow industrial hemp as a farm crop under a simple regulatory system no more restrictive than that in Canada.

Dated this day 25, of January 2000

# MODERN USES FOR HEMP



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# Ag fiber, scrap wood combo could provide new markets

## MEDFORD

Agricultural fibers combined with scrap wood could open new market opportunities for Wisconsin farmers and the building materials industry.

A study, funded through a 2000 state agricultural grant, concluded that the use of agricultural fibers and wood scrap to produce particleboard and other composite boards is feasible, lucrative and cost effective. The project, conducted by Doug Entenmann of Allwood-Allfiber, demonstrated that high-grade boards could be produced at lower costs, and that minimill operations could make "designer particleboard" to meet a customer's specific requirements.

"Our goal was to use agricultural fibers in particleboard to provide strength with less weight," said Entenmann. "We also intended to make them water-resistant or waterproof, fire resistant, decay and insect proof and formaldehyde free."

Entenmann produced and tested 30 different particleboard blends made from wheat straw, soybean stalks, oat straw, flax, hemp and waste-wood materials using Italian minimill technology. In some cases, straw or stalks used in the particleboard were considered a waste product of crop production. In other cases the material was a new crop.

According to Entenmann, not only could manufacturers use wood waste from the state's many sawmills and secondary wood producers, but also from soybean straw, flax and, in the future, possibly industrial hemp.

"This project may help Wisconsin farmers find new markets for agricultural fibers and potential markets for new crops," said Stan Shaw, administrator of the Department of Agriculture, Trade and Consumer Protection's (DATCP) marketing division. "One particleboard plant of this type could possibly provide a rural community with a payroll of \$1 to \$1.5 million and a revenue stream of \$1 to \$3 million to area farmers for agricultural fibers."

Entenmann received a \$14,400 Agricultural Development and Diversification (ADD) grant from the marketing division of the DATCP to produce and test particleboard blends made from a variety of agricultural fibers and waste wood materials. The panels were tested for a number of physical standards including the breaking point, the measure of elasticity, hardness, internal bond strength, moisture content, thickness swell, linear expansion, waterproofing capability and fastener retention.

If 10 percent of the cropland in the United States were switched to alternative crops, the price of corn, soybeans and other grains would increase by as much as a dollar per bushel due to the decrease in supply, according to Entenmann.

More information on the multifiber minimill project is available by calling Entenmann at (715) 748-5356, while more information about ADD grants is available by calling (608) 224-5136.

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# News

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## Canadian hemp isn't going to pot

### Farmers have been licensed to grow nonpsychotropic cannabis for fiber, oil

By Dennis Cauchon  
USA TODAY

**PAIN COURT, Ontario** — The cannabis sativa plants rise tall and sunward under a blue Canadian sky. The plants sway wheatlike in the wind, hundreds of thousands of plants, acre after acre of professionally grown cannabis, so thick you can't walk through the fields. "I'm very pleased with this crop," says farmer Jean-Marie Laprise, who is Ontario's largest grower of cannabis and Brussels sprouts. His brother starts a big John Deere combine, ready to harvest a cannabis field just 15 miles north of the U.S. border.

And it's all legal — for the first time since 1938. In a new policy being closely watched by farmers and law enforcement officials in the USA, Canada is letting farmers grow cannabis sativa, best known as the source of marijuana. By the end of October, 251 farmers will have harvested 5,930 acres of cannabis for its ancient use as hemp, a source of fiber and food oil.

This cannabis hemp can't get a person stoned. It's bred to have too little THC, the psychoactive ingredient in marijuana, to produce a high, no matter how much is smoked. Some disappointed locals have tried. But the Canadian hemp crop could reshape the contentious debate over whether farmers should be allowed to grow hemp in the USA.

The U.S. Drug Enforcement Administration (DEA) bans growing hemp, saying it would make enforcing drug laws from 3M, the plant materials

harder because hemp and marijuana look alike. The White House and its drug czar support the ban.

Hemp and marijuana are essentially varieties of the same plant. It would be impossible to tell them apart, outside of a chemical analysis for THC content, if they were not bred and cultivated differently. Hemp is grown densely — 300 plants a square yard — for low THC, high fiber content and a minimal amount of branches and leaves. Marijuana is grown one or two plants a square yard to be rich with branches, leaves and THC.

The DEA and the White House have found themselves increasingly isolated in their refusal to grant licenses for low-THC hemp.

Since 1980, hemp has been legalized in most of Western Europe, including Great Britain, Germany, Austria and Switzerland. Australia joined Canada in legalizing hemp this year.

In the USA, hemp has gone mainstream, too. Originally pushed by marijuana legalization activists, hemp has won growing support from farmers, agricultural researchers, environmentalists and large corporations. They say hemp is an environment-friendly fiber that could reduce demand for timber and synthetic fibers. Farm bureaus in 17 states now support hemp. A cooperative of Kentucky farmers has sued the DEA in federal court over the issue.

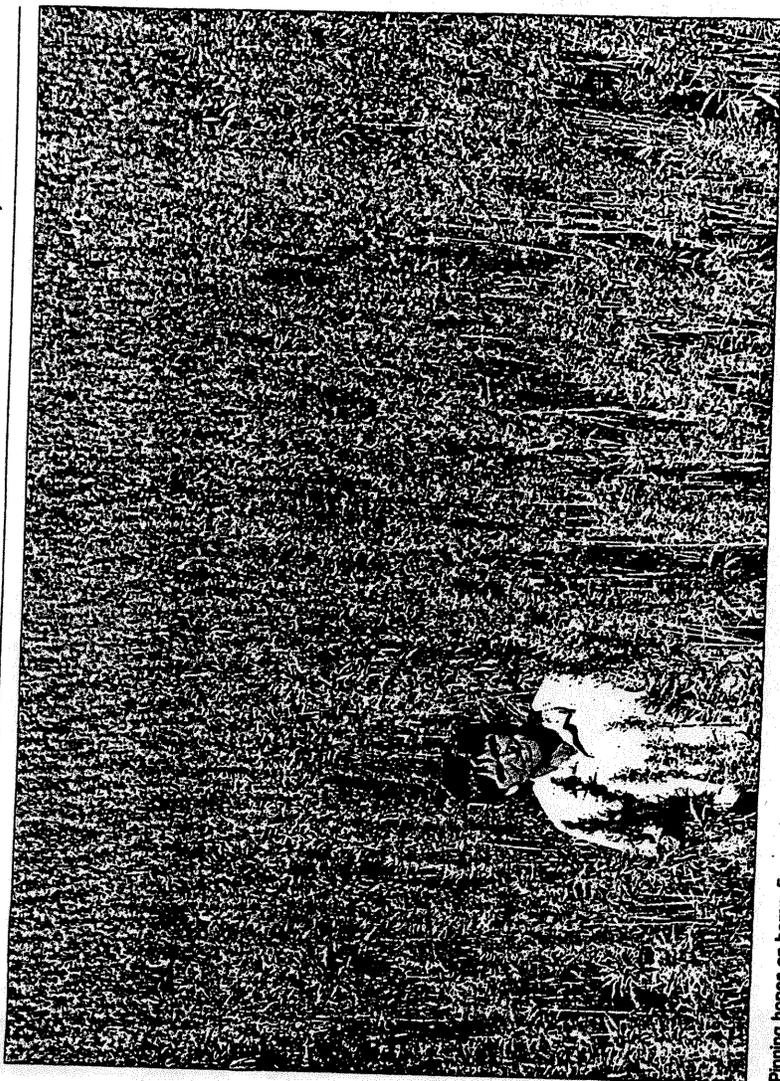
manufacturer; Interface, a large carpet maker, and the former head of the National Corn Growers Association.

Since July, agricultural experts at three universities — North Dakota State University, Oregon State University and the University of Kentucky — have completed studies of hemp that reached the same conclusion: Hemp can be a valuable niche crop.

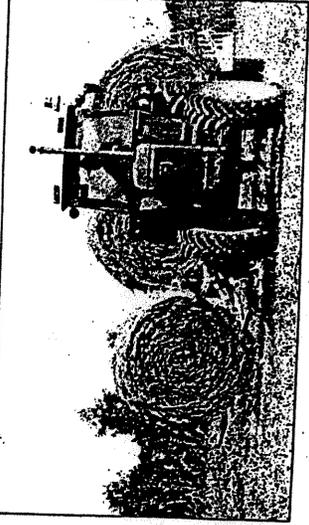
"Among people in agriculture, the myth of its being the same thing as marijuana is long gone," says North Dakota state agricultural economist David Kraenzel, who did a study for that state's Legislature. "You'd croak from smoke inhalation before you'd get high on hemp."

Hemp excites farmers mostly as a crop that can be rotated with plants such as soybeans, wheat and potatoes. They say hemp's deep roots aerate the soil. After the harvest, its roots and discarded leaves replenish the soil with nutrients. Its early growth and thick canopy choke off weeds, and it breaks disease cycles that reduce the yields of other crops. It also can be grown largely without pesticides and herbicides.

"North Dakota desperately needs a good rotation crop," Kraenzel says. "Even if hemp isn't profitable itself, it is profitable as a rotation crop. Farmers need to take some money off the land in years when they can't grow wheat or potatoes." North Dakota potato farmers take fields out of production every few years because of potato blight, while exceptionally profitable areas are



Pinning hopes on hemp: Farmer Jean-Marie Laprise has invested millions in getting agricultural cannibis off the ground in Canada. Photos by Samia Fazio for USA TODAY.



Harvest: Bales of hemp are picked up at a farm in Ontario. Farmers value it as a rotation crop, which can aerate soil and replenish nutrients. Putting forward our agenda. The critics note that world hemp production has fallen from 1 million acres in 1960 to 250,000 acres today. The traditional big growers — China, Romania, Hungary — have at

from the soil. Farmers plant tall grass or sunflowers to improve the soil. But tall grass produces no revenue, and sunflowers only break even. Hemp would turn a modest profit of \$73 an acre while improving the soil better than either tall grass or sunflowers, the North Dakota study predicts.

Hemp opponents maintain the crop is a loser both economically and politically. White House drug czar Barry McCaffrey says that the push to grow hemp is "a subterfuge" for efforts to legalize marijuana and that hemp is unlikely to be a profitable crop anyway.

"Legalizing hemp sends the wrong message about marijuana," says David Des Roches, an aide to McCaffrey who specializes in hemp. "These poor farmers are being conned by the marijuana legalization groups. If hemp were a viable

from scratch. The success of the crop won't be known for five years, Canadian farmers say, but this year's crop looks profitable.

Neil Strayer, who farms 1,000 acres in Saskatchewan, says his 40 acres of hemp will return double the \$200 to \$300 Canadian (\$128 to \$192 U.S.) an acre he makes on barley. He was thrilled by the hardiness of his Finnish dwarf hemp, which grows 4 feet tall. "The hemp came through beautifully despite many obstacles."

Strayer's government license was delayed, so his crop wasn't planted until July 1, late in Saskatchewan's growing season. The spring weeds had already come in, a problem for Strayer, an organic farmer who doesn't use herbicides. "Lo and behold, the hemp came in right on schedule — 70

# Program draws little controversy in Canada

Continued from 13A

days," he says. His hemp will be turned into oil and sold mostly in U.S. health food stores. He plans to plant 600 acres of hemp next year.

To get a hemp license, a clean police record is required. A farmer pays \$25 (about \$16 U.S.) for a check.

The farmer provides the location of hemp fields to the Royal Canadian Mounted Police (RCMP), who may inspect in person or by helicopter. Hemp fields must be at least 10 acres for easy identification.

Hemp must have a THC content of less than 0.3% — the same requirement as in Western Europe and about one-tenth that of average marijuana. Health Canada, the government health ministry, conducts random audits of THC levels.

In Canada, the hemp pro-

gram has been largely free of controversy. The agriculture ministry spent \$500,000 (\$321,000 U.S.) to research the crop before it was legalized.

The Mounties raised no objections. "It's Health Canada's decision, not ours. We enforce drug laws. We don't make them," says Corporal Gilles Moreau, spokesman for the RCMP.

Jean Pert, hemp project manager at Health Canada, says no problems with illegal marijuana have been reported.

The Canadian farmer taking the biggest risk on hemp is Laprise, whose family has farmed in Pain Court for 145 years. The 44-year-old entrepreneur has invested \$4 million (\$2.6 million U.S.) in hemp, including money for a new processing plant, research and a breeding operation.

Laprise's 1,500-acre farm has a 9.5-acre greenhouse that

is one of the region's biggest suppliers of vegetable transplants. His plant breeding operation generates sales of \$65 million (\$42 million U.S.) a year, one-third of his farm's revenue. He expects to be a major hemp seed supplier.

In addition to hemp, Laprise harvests corn, soybeans, sugar beets and 8,500 tons of tomatoes a year for Heinz ketchup.

He's not an organic farmer, but he became interested in hemp in 1995 when Claude Pinsonnault, a farmer he works with, read an article about hemp in *Earthkeeper*, an environmental magazine.

"The first thing I thought is: what a great rotation crop," Pinsonnault says. "Farmers are getting killed by soybean cyst nematodes (small worms that attack the plants). You see fields where the yield has gone from 50 to 15 bushels an acre. Hemp breaks this disease cycle."

The two farmers began researching hemp on their own, including several trips to Europe to visit hemp farms.

They got permission to test (but not sell) a hemp crop: one-tenth of an acre in 1995, 15 acres in 1996, 122 acres in 1997.

This year, Laprise grew 300 acres of hemp and contracted with 50 local farmers to grow another 2,000 acres. He hopes to double that next year to supply his processing plant.

Laprise smiles at the suggestion that he's being manipulated by marijuana activists.

"It's a different crop. Any farmer knows that," he says. "The plants are bred differently, grown differently, used differently."

Cannabis pollen is light and blows freely in the wind, giving this area the distinctive smell of cannabis on a breezy day. Laprise requires that hemp fields be 3 miles apart so differ-

ent varieties do not contaminate one another.

Pollen from marijuana bred for high THC would damage his low-THC hemp bred for thick stalks, and vice versa.

"To put a marijuana plant in a hemp field would be ridiculous: First, because we told the RCMP where it is, and second, because it would hurt the hemp crop," he says.

He expects hemp to be unusually profitable in the next few years, partly because the U.S. ban on growing it gives Canadian farmers an edge.

But long term, he predicts, hemp will become a niche crop — about 100,000 acres a year in Canada — and produce profits similar to corn and soybeans.

"It's a new market," he says. "But, hey, somebody started growing soybeans just a few decades ago, and now it's our second-biggest crop."

THE NATION

# Pioneer harvests hemp idea into business

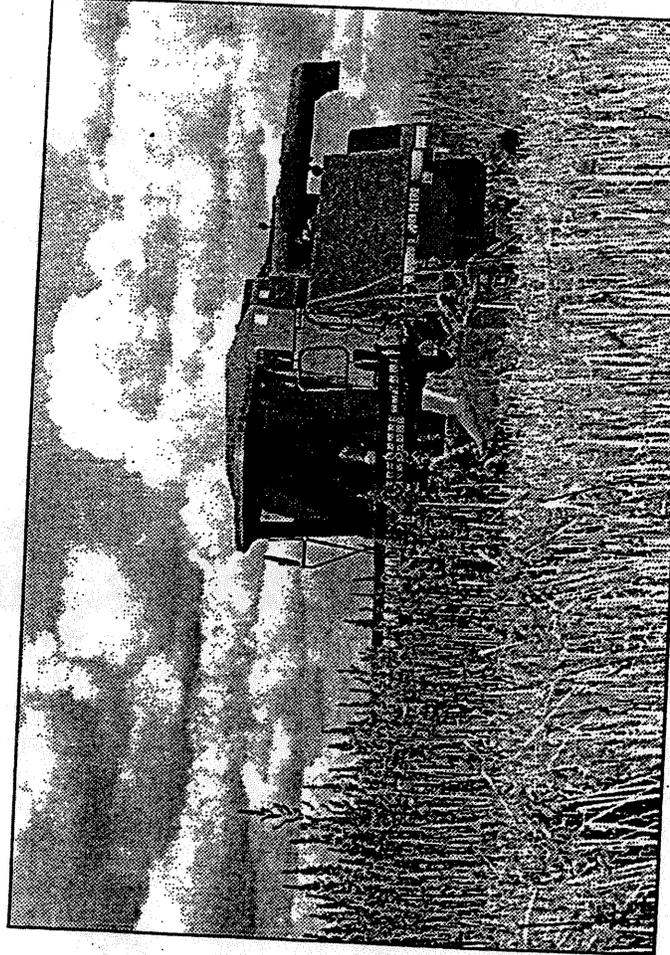
By Dennis Cauchon  
USA TODAY

The rebirth of hemp began in 1985 when counterculture activist/entrepreneur Jack Herer published his eccentric book, *The Emperor Wears No Clothes*. Printed on cheap newsprint, the self-published book argued that cannabis sativa is a wonder crop that could save the world. Only a conspiracy of drug agents and powerful corporate interests had prevented this glorious plant from clothing the poor, saving the environment and helping end famine, Herer wrote.

"I had a vision about hemp in 1974 when a bunch of us were stoned," Herer recalls. "I thought when we came down, the idea would be ridiculous. Instead, I realized it was even a better idea than I'd thought."

He opened the nation's first hemp store in Venice Beach, Calif., in 1981. For his book, he researched hemp for 11 years, harvesting a wealth of U.S. Agriculture Department material on the wonders of cannabis hemp and a now well-known government propaganda film, *Hemp For Victory*, that encouraged farmers to grow cannabis for fiber during World War II. The 1942 film echoes Herer's claims about hemp.

*The Emperor Wears No Clothes* has sold 600,000 copies since 1985, including 150,000 in German and French. A new edition was released Thursday.



Field of controversy: Hemp being harvested in September in Ontario, Canada. This cannabis hemp doesn't have enough THC, a psychoactive ingredient, to cause a high.

By Santa Fabio for USA TODAY

Although still self-published, the book, subtitled *The Authoritative Historical Record of Cannabis and the Conspiracy Against Marijuana and How Hemp Can Save The World*, is now available in major bookstores for \$24.95 and printed on high quality paper (made from trees, excluding 1,000 copies on hemp available for \$100 each).

In the early 1990s, farmers and agricultural researchers began examining Herer's ideas. Although most found his claims overstated, a consensus developed that he was right about his most important point: hemp was a valuable crop, long used for fiber and oil, that answered many of today's environmental concerns because it replenishes the soil

and can be grown with few herbicides or pesticides.

"Jack kept the idea of hemp from being lost in the dustbin of history," says David West, who has a Ph.D. in plant breeding and was one of the first agricultural professionals to re-examine hemp. "But many farmers squirm at this counterculture connection."

West says the Drug Enforcement Administration makes the same mistake Herer made in his original 1985 book: "They both see hemp and marijuana as the same thing. To an agricultural professional, this just is not so."

Herer expresses disappointment that marijuana legalization has lost its importance as hemp has gone mainstream. In their desire to separate hemp and marijuana, many farmers ignore excellent hemp that is above the legal THC limit, he says. THC is the psychoactive ingredient in marijuana that causes a high.

But Herer lives to fulfill a pledge he first made in 1974 with his now deceased best friend and business partner, "Captain Ed" Adair: "We'd swear to work every day to legalize marijuana and get all pot prisoners out of jail, until we were dead, marijuana was legal, or we could quit when we were 84. We wouldn't have to quit, but we could."

Herer, 59, is founder and director of Help End Marijuana Prohibition, or

# Hemp: The other cannabis

## What it's used for

Historically, hemp fiber — a soft, strong fiber that runs the length of the stalk — has been used for cloth, ropes, sails, paper and thousands of other items. It was last farmed commercially in the United States in 1957 by a Wisconsin farmer who supplied a carpet manufacturer. Synthetic fibers put him out of business.

With the exception of the two world wars, hemp production has declined steadily for more than a century, replaced by cheaper man-made fibers, cotton and timber.

Hemp oil, made from the seeds, is an excellent source of essential fatty acids and is popular in health food stores. However, it is more expensive than other oils.

Hemp products worth an estimated \$75 million to \$100 million were sold in the United States last year, up from almost nothing a decade ago. "Hemp mills in other countries were on the verge of bankruptcy until the hippies showed up and said, 'Cool. We'll pay anything for hemp,'" says Oregon State University agronomist Daryl Ehrensing. While large-scale production would reduce hemp's cost, it would be difficult to lower prices enough for hemp to be more than an important niche crop, he says.

## What it is

Hemp and marijuana are both names for the cannabis sativa plant. Hemp, the older term, is used when the plant is grown canelike for the fiber in its stalk and the oil in its seeds. Marijuana, originally slang, is used when the female plant is cultivated for its THC (delta-9 tetrahydrocannabinol), a psychoactive ingredient.

Cannabis generally has little THC. Of the 1.54 billion cannabis plants destroyed by U.S. drug agents from 1993 to 1997, only 14 million plants were marijuana. The other 99.1% were low-THC hemp that grows wild.

Hemp's THC content is too low to produce a high. By law in Canada and Europe, hemp must have a THC level of less than 0.3%. When bred for THC, marijuana typically has a THC content of about 3%. High quality marijuana can approach 10%.

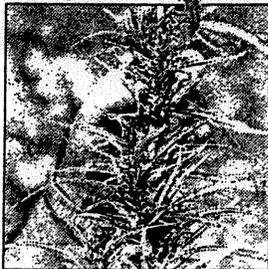
"It is impossible to get intoxicated on cannabis with 0.3% THC," says Richard Musty, a University of Vermont psychologist who studies marijuana's effects. THC of 2% is the minimum needed for commercial marijuana, he says.

Hemp and marijuana look alike, except for the way they're grown.

Hemp is planted 300 seeds per square yard to maximize the number and thickness of stalks. Marijuana growers do the opposite. They plant one or two seeds per square yard and maximize branches, leaves and flowers, where most THC resides.



**Marijuana**



**Hemp**

## Legal status

Hemp is technically legal in the United States. However, the Drug Enforcement Administration refuses to grant licenses to grow hemp. A group of Kentucky farmers has sued the DEA. In a statement, the DEA said it has determined that growing hemp is not in the public interest.

Drug enforcement agents spend "a fortune destroying wild hemp and they don't want to lose their budget," says Andy Graves, who farms tobacco and soybeans near Lexington, Ky., and is one of the farmers who has sued the government. The DEA asked that the suit be thrown out, arguing that the farmers have no standing because they don't grow hemp.

"All the News  
That's Fit to Print"

# The New York Times

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## U.S. Farmers Covet a Crop That Policy on Drugs Forbids

By CHRISTOPHER S. WREN

BISMARCK, N.D. — Dennis Carlson sold his first wheat, grown on a field borrowed from his parents, in 1975, when he was 14 years old. He earned \$4.51 a bushel and resolved to follow his father, grandfather and great-grandfather into farming.

Nearly 24 years later, spring wheat is selling for \$2.91 a bushel, and Mr. Carlson worries whether he can afford to plant in April. "We're going to get a low price," he said. "And if we get a bumper crop, it's going to get lower."

Battered by sinking commodity prices and rising costs, Mr. Carlson and other wheat farmers are looking across the Canadian border at a crop they say could help save them — if only it were legal here. That crop is hemp, a non-intoxicating look-alike cousin of marijuana grown around the world for its fiber, seed and oil.

But long identified with marijuana both by law enforcement and the counterculture, it is banned in the United States as part of the war on drugs.

As farmers from Hawaii to Vermont lobby state legislatures to study hemp's potential and make it legal, they are opposed by Federal officials unwilling to relax drug laws even symbolically, whether by endorsing marijuana's medical use or by approving a once-common American crop, hemp.

Until recently, the White House's Office of National Drug Control Policy asserted that making hemp legal would send the wrong message, "especially to our youth at a time when adolescent drug use is rising." But last week its director, Gen. Barry R. McCaffrey, indicated in an interview that his opposition was softening.

"If people believe that hemp fiber can be sold in the marketplace for a profit, and aren't actually trying to normalize the growing of marijuana around America, to the extent you want to grow hemp fiber we'd be glad to work with you," General McCaffrey said.

But as a profitable crop, he said, "I think it's going nowhere."

But in North Dakota, where the Republican-controlled Legislature appears likely to enact laws promoting hemp, Mr. Carlson said: "We're all desperate. We're trying to find something that will change our outlook, and hemp is one of many crops."

It does not help that hemp remains identified with the counterculture, its products — from oils to clothing — often sold in shops that sell rolling papers, pipes and other drug paraphernalia, its cause cheered on by marijuana advocates.

"They are our worst enemies,"

Continued on Page A22

## Farmers Covet Crop; Drug Policy Forbids It

Continued From Page A1

said Gale Glenn, a tobacco grower in Winchester, Ky. "If marijuana didn't exist, hemp would be growing here on hundreds of thousands of acres."

Legislation to revive hemp passed in Hawaii in March and has been introduced in legislatures in Minnesota, Montana, North Dakota, Vermont and Virginia.

The Federal Controlled Substances Act is ambiguous about hemp, prohibiting marijuana but then excluding the plant's mature stalk, fiber, or oil or cake made from its seeds, said Eric Sterling, a lawyer who heads the Criminal Justice Policy Foundation in Washington.

The act also says the Government does not intend to prevent states from legislating in this area. But even with state approval, hemp growers would need permits from the Drug Enforcement Administration, which has so far resisted.

"There's widespread bipartisan support for this becoming a crop in North Dakota," State Senator Joel C. Heitkamp, a Democrat, said. "The problem is at the Federal level."

State Representative David Monson, a Republican who sponsored the North Dakota legislation, said, "I think 99 percent of the people in my district, when you show them the bottom line, they're ready to go."

After Canada made hemp legal a year ago, about 5,000 acres were planted with hemp, said Geof Kime, president of Hempline, a hemp growing and processing company in Delaware, Ontario.

Mr. Monson, a farmer, recalled watching his neighbor across the border in Manitoba grow 23 acres of hemp that netted about \$250 an acre. "When he came out with all those profits, we were really upset," he said.

The harvested hemp can be imported into the United States for processing, "but we can't grow it ourselves," said Jeffrey W. Gain, who promotes the revival of hemp as a director of the North American Industrial Hemp Council.

Hemp flourished as a cash crop through American history. George Washington and Thomas Jefferson grew hemp on their plantations. The Declaration of Independence was drafted on hemp-fiber paper. Hemp supplied early Americans with rope, sails, clothing and other necessities.

But in 1937, Congress enacted a ban on marijuana that came to encompass hemp. During World War II, after imports of Manila hemp from the Philippines were cut off, the Government distributed seeds for farmers to grow in a "Hemp For Victory" drive, but once the war ended, hemp was banned again. By then, synthetic fibers like nylon were taking its place.

Environmentalists describe hemp as a renewable, biodegradable resource that can be used in paper, fabrics, building material and even automobile moldings. Farmers say it's a crop that needs few pesticides, shades out weeds, resists erosion — and can make money. "This is not a banana," Mrs. Glenn said, "but it's one of the answers."

Dr. Paul Mahlberg, a cell biologist at Indiana University, has a license from the Drug Enforcement Administration to grow experimental marijuana and hemp. He described them as varieties of *cannabis sativa*, a species whose cell structure he has studied for 30 years.

"If you had hemp and marijuana here and set it on the table, could you tell the difference?" Dr. Mahlberg asked. "The answer is no, not in the long ones."

But, he said, "when you're growing it in the field and it's planted, you can." Each, he said, could easily be identified from the air.

Hemp is densely planted and grown as tall as 15 feet to develop the stalks and kill off leaves. By contrast, marijuana plants are short, bushy and spaced three to four feet apart to encourage the leaves and flowers that deliver the psychoactive ingredient delta-9 tetrahydrocannabinol, popularly called THC. Hemp is harvested before it flowers, and marijuana afterward.

Both varieties have THC, industrial hemp has less than 1 percent THC by weight, rendering it ineffectual as a drug, while marijuana contains 5 percent THC or more by weight. Canada and some European countries require cultivated hemp to have a THC content of 0.3 percent or less.

"What we're working for now is to produce a zero percent THC," Dr. Mahlberg said.

In rural areas, neglected hemp has degenerated into a feral remnant called ditch weed, with low THC content. "There's a standing joke in our corner of the state that no self-respecting marijuana smoker would touch the stuff," said State Senator Russell T. Thane, a North Dakota Republican.

Senator Thane said National Guardsmen and law-enforcement officials spent many weekends uprooting ditch weed. "It's probably a poor utilization of time," he said.

In Vermont, the State Auditor's office determined that 78 percent of the marijuana reported eradicated

in the state — and 99 percent destroyed nationwide with Federal funds — in 1996 was ditch weed.

Dr. Mahlberg said, "Some of the hemp they're destroying is close to zero THC."

Law-enforcement officials argue that marijuana could be hidden in hemp fields. But hemp would actually be a weapon against marijuana, Dr. Mahlberg said, because cross-pollinating with hemp would dilute marijuana's potency.

In theory, marijuana pollen could also affect hemp. But hemp planted in quantity — Canada requires at least 10 acres — would overwhelm marijuana. Andy Graves, a farmer

who heads the Kentucky Hemp Growers Cooperative, a group trying to make hemp legal again, said marijuana growers would find hemp farmers "their worst nightmare, because our pollens will cross."

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## Trying to shake hemp's association with its potent cousin marijuana.

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On March 3, a Federal judge dismissed a lawsuit by Mr. Graves's group challenging the Government's ban on hemp, because Kentucky state law forbids it too. But with their tobacco quotas slashed 28.8 percent this year, some farmers are giving hemp another look.

"A third of our income is down the drain because of the quota," Dorothy Robertson, a farmer in Bethel, Ky., said. "Farmers have their backs against the wall."

Tobacco earns more money, but diversifying into hemp makes sense to farmers because it could be processed locally, creating more work. Tribby Vice, a tobacco and dairy farmer in Fleming County, Ky., said hemp would provide healthy bedding for his 80 cows and would make a good rotational crop. "The equipment we have for tobacco we can take and use for hemp," he said.

The farmers said they could live with the kind of controls that other countries impose. Canada requires that every hemp farmer have a license and police background check, use seed certified to produce 0.3 percent THC, report the precise location of his crop and open it for random inspection, Mr. Kime said.

In North Dakota, Mr. Carlson said, "if there's been any group of people who've been against drugs, it's the farmers. And if hemp becomes legal, we'll make sure that marijuana won't get in there."

# Industrial hemp proponents to make pitch in Washington

By Judy Brown  
Regional Editor

MADISON — Proponents hope the day will come when the traditional crop rotation of corn and soybeans includes industrial hemp.

Corporate America imports industrial hemp and agriculture is poised to grow industrial hemp. The hangup is the crop is illegal to grow because federal authorities classify it as marijuana.

With a sagging economy and surplus commodities defining much of agriculture, many acres need to be shifted to producing industrial materials rather than foodstuffs, said Erwin "Bud" Sholts, retired from the Wisconsin Department of Agriculture, Trade and Consumer Protection.

"The two-year rotation of corn and soybeans is under attack," said Mr. Sholts, who worked with agricultural development at DATCP. "We need to move about 15 percent of those acres to get corn at \$3.50 a bushel."

At DATCP, Mr. Sholts was instrumental in forming the North American Industrial Hemp Council, an organization he chairs.

The council was meeting April 24-28 in Washington, D.C., with congressional representatives, federal agencies, groups that support industrial hemp and the Canadian embassy.

Their aim is to convince federal authorities that industrial hemp should be grown in the U.S. The product is now grown in 33 countries and imported into the U.S.

"Our efforts will be an attempt to dispel some of the negative information on industrial hemp," Mr. Sholts said.

Fourteen council members hope to meet with officials of the Drug Enforcement Agency, which has consistently been against industrial hemp.

E. James Woolsey, a council lobbyist and former director of the CIA, in the past has said, "It's goofy to contend that industrial hemp with 0.3 percent THC is a psychoactive substance."

Both industrial hemp and marijuana are named Cannabis sativa L. THC, the active ingredient of hemp, is known as tetrahydrocannabinol.

DEA enforces the rules governing industrial hemp and marijuana.

It's clear that Congress never intended to outlaw industrial hemp, said Russel Weisenel, Sun Prairie, coordinator of the Wisconsin Legislative Initiative for Industrial Hemp.

He said DEA could change the status of industrial hemp to allow agriculture to grow the crop without legislative action.

Until there is federal action approving the crop, major companies hesitate to endorse the fiber-producing crop, Mr. Weisenel said.

"Diversifying agriculture is necessary to strengthen Wisconsin's agricultural economy," Mr. Weisenel said.

"It would be great to have another crop in the rotation. As we have fewer and fewer dairy farms the rotation of alfalfa seems to be less and less. If we had a totally alternative crop that would also be valuable," he said.

He visualizes that industrial hemp could grow to the same stature as soybeans in Wisconsin.

"But, it's going to take a while to develop these markets. There's not an instant market for it but the market is growing," Mr. Weisenel said.

He sees industrial hemp used in extruded plastics, making molds at less cost and lighter, and in building materials where fiber mats dampen sounds, for example.

Wisconsin has been slow to get on board in asking

Congress to get industrial hemp reclassified.

"We've got legislators who say 'show us the market' and then we'll vote for it," Mr. Weisenel said. "That's like winking in the dark because no one knows you are there."

According to a spokesperson for the Wisconsin Assembly Agriculture Committee, Rep. Al Ott, chair, has drafted a bill that has yet to be introduced.

"It asks Congress to review the policy regarding production of hemp so it could be legalized as an agricultural product," said Beata Kalies of the committee staff.

She said Mr. Ott was on vacation. An assembly agriculture hearing last year saw overwhelming support for industrial hemp with just two per-

sons testifying against production, Mr. Weisenel said.

"Our view is that we don't want to raise hundreds of thousands of acres of industrial hemp or raise farmer expectations, but as long as it's illegal, privately companies can't come out and support it," Mr. Weisenel said.

Wisconsin needs to take action to be in a position when the rule changes because investment dollars will move quickly, Mr. Sholts said.

"I see investment dollars moving but where Wisconsin is now we won't be ready like North Dakota, Illinois, Iowa and Minnesota are," Mr. Sholts said.

He said that Ray Berard, a council director, who represents Interface Inc., a \$1.2

billion carpet manufacturer, said Wisconsin's climate and soil are idea for industrial hemp.

"We were a major grower before," Mr. Sholts said. Industrial hemp was grown in the U.S. under the authority of USDA before the federal drug agency that preceded the DEA administratively classified it in its schedule as a "No. 1 drug."

"The Marijuana Tax Act of 1937 exempted industrial hemp but when they administratively made it a 'No. 1' drug, then no one could grow it," Mr. Sholts said. For years, hundreds of farmers have applied for a permit to grow the crop, but have been turned down, he said.

"All that needs to be done administratively is to classify it back to where it was. There is no need to change the law," he said. "Then it can be grown under the same protocol as it's being done in England, Canada, and Germany which have significant-

"While they're occupied with the budgets and China, getting them to stop and think of something that could benefit agriculture is a year-man's task," he said. "We think we can get it done." Judy Brown may be reached at [jlbrown@vbe.com](mailto:jlbrown@vbe.com).



Opponents will be an attempt to dispel some of the negative information on industrial hemp. Erwin "Bud" Sholts, an industrial hemp proponent, is seen in the photo.

# Law Enforcement Trying to Block

Work is continuing on efforts to introduce industrial hemp bill in the Wisconsin Legislature with bipartisan support.

The road, however, is getting a bit bumpier not because of a lack of support from the sector, where the Wisconsin Agribusiness Council (WAC) is coordinating the ag efforts.

The bumps are coming from the law enforcement sector, which continues to equate industrial hemp with marijuana, and who, even if they accept the researchers' evidence of the lower THC in the industrial variety, insist it be combined with higher levels to achieve same effects as the outlawed drug.

There's something about this scenario that doesn't quite ring true with me.

I remember earlier meetings of the North American Industrial Hemp

Forum held in Minneapolis and Chicago, where Drug Enforcement Administration people were invited - but they didn't show up. The last meeting, held in Madison on March 17, brought people from different parts of the world who were prepared to answer questions about law enforcement concerns based on actual experiences. But again - the law enforcement community was conspicuous by its absence.

Now, it appears, law enforcement wants to intervene - heavily - against any attempt to even touch industrial hemp in this state. Only they want to do it not in an open forum such as the March 17 meeting, but on their own turf.

Russ Weisensel, lobbyist for the Wisconsin Agribusiness Council and a former state legislator, has been invited to debate or appear before law enforcement officials and twice he has accepted the challenge. While Russ doesn't like entering the lion's den, it certainly sounds as though the experience might be a little less than similar.

At the first meeting was actually a debate with Tom Kajawa that aired on a Wausau television station. "The captain," a Marathon drug enforcement official with 17 years experience, including the last 10 in the narcotics division, "is a very dedicated man," Russ tells Agri-View. "But he believes there are only two ways to support industrial hemp: The first is to legalize marijuana, while the second is to be duped by the first group."

Last week Russ was invited to explain his proposal at the annual meeting of CEASE (Cannabis Enforcement And Suppression Efforts) meeting at Fort McCoy. CEASE members include state and regional DEA officials, law enforcement personnel in the Wisconsin Department of Justice (DOJ), regional pilots for the National Rifle Association (NRA), narcotics and CEASE officers in county and local law enforcement agencies, the Wisconsin National Guard, and the State Patrol.

Russ estimates there were between 125 and 150 people at the meeting. "I felt I was dead as I was introduced," he admits. Nevertheless, he continued his efforts to counter Kajawa's statements about there being no net for industrial hemp and that it had no environmental benefits.

Some CEASE members didn't even want to be discussed publicly for fear the discussion would desensitize children to the dangers of marijuana, Russ said. "One of the issues that concerned cases where THC had been extracted from ditchweed," and Russ estimated that 10 to 85 percent of those in attendance were new to cases where ditchweed was smoked.

Paul Mahlberg, professor of biology at the University of Wisconsin, says he's aware of a number of unsubstantiated claims about

putting it into capsules to take orally. Dr. Mahlberg said there are also unsubstantiated claims that organized crime has taken over the hemp fields in England and that hemp seed oil causes skin cancer in lab rats overnight.

"My response," Dr. Mahlberg wrote to Weisensel, "is that THC affects nerve cells in the brain, and users want it in the circulatory system, not the stomach." He mentioned other "unfounded claims" and said he believes such statements "are intended to stir hysteria."

Now, it seems to me, the perfect place to have discussed such claims would have been the March 17 forum. Invitations to that event were mailed to a number of law enforcement groups and, according to Russ, there was no response and nobody showed up. It's hard to believe that everyone decided it wasn't important enough to attend themselves or that they didn't pass on the invitation to someone else in their department or organization.

I know of no Wisconsin farmer who would have any interest in growing industrial hemp for an illegal purpose. Farmers want information about industrial hemp because they believe it could once again be grown in Wisconsin and could provide an important alternative crop. Environmental interests support growing industrial hemp because it uses few, if any, chemicals. Paper companies and textile manufacturers, faced with a worldwide shortage of fiber, would welcome a renewable crop that would allow thousands of acres of forests to remain unharvested.

For farmers, the reason for their interest in being able to grow this renewable crop has everything to do with their bottom lines.

No one I've heard speak about industrial hemp has ever suggested the issue isn't a sensitive one. That's why ag groups have been careful not to hold out false hope to farmers about the economics of growing the fibrous crop. It's also why respected staff from the University of Wisconsin and academia across the country have been careful to keep the discussion centered on sound information about growing conditions, availability of seed, and the need for research and development before anything else is done.

Ag groups are preparing to call on individual legislators to talk about the draft proposal that would allow such research and development to begin here in Wisconsin. Ag committee chairs from both houses of the Wisconsin Legislature - who are from different political parties - are promising a fair treatment of the issue.

No lawmaker or farmer is interested in making the jobs of law enforcement people any more difficult. That's why they're willing to spend countless hours learning about and discussing the issue. Law enforcement people need to be a part of that discussion in the open arena of government and not resort to scare tactics or insist on only showing up

ingly outnumber the people who want to talk about the impact of industrial hemp - on farmer income, on the environment and on industry.

They should remember - and have some respect for Wisconsin farmers who were encouraged to raise hemp during World War II, when rope-making supplies were cut off or unobtainable. Farmers willingly grew the plant and stockpiled it in case the government needed it for its war effort.

April 17, 1997

## Industrial Hemp

The last two groups between which battle lines are drawn over the issue should be farmers and law enforcement people. Both want fairness and safety, and protection for themselves and their families.

It's the American way to bring controversies out into the open and discuss them. Any other method seems mighty strange to me.



### Capitol Update

A Look at Legislation Affecting Farmers and Rural Wisconsin  
By Joan Sanstadt  
Field Editor

# BUSINESS

SUNDAY, FEBRUARY 16, 1997

MILWAUKEE JOURNAL SENTINEL

MJS 2-16-97

## Farm groups support legalizing industrial hemp

By LEE BERGQUIST  
of the Journal Sentinel staff

Wisconsin's agriculture community has been quietly working to legalize a form of marijuana that it says will diversify Wisconsin's farm economy — in a good way.

That's because this kind of pot — often called industrial hemp — won't make you high.

Farm groups and the Wisconsin Department of Agriculture are touting industrial hemp as a new crop for state farmers that could be used, among others, by the state's paper industry — the nation's No. 1 paper producer.

Industrial hemp is prized worldwide for its long natural fibers. An acre of industrial hemp produces four times more paper than one acre of trees, according to the North American Hemp Council Inc., which is based in Madison.

At least 29 other countries are legally growing industrial hemp for some 300 industrial uses — everything from an ingredient in food to an additive in cement blocks, said Erwin A. "Bud" Sholts, chairman of the council.

Sholts also is director of agriculture development and diversification at the Wisconsin Agriculture Department.

On March 17, state farm groups and agriculture officials will convene a legislative conference in Madison to talk up what they readily concede is a highly misunderstood product. It will be the first step in a public education effort aimed at distinguishing industrial hemp from its high-octane cousin.

Industrial hemp was banned in Wisconsin after World War II, and its detractors today include the state's top law enforcement officer.

Draft legislation is being written at the state Capitol

Please see LEGAL page 5

that would once again permit production of industrial hemp.

At least six other states, including farm-intensive Iowa, are pushing for legalization of industrial hemp.

Wisconsin legislation would first permit the growing industrial hemp by state researchers and later by farmers looking for an alternative crop, according to Russell Weisensel, executive director of the Wisconsin Agribusiness Council.

Farmers would have to be licensed if they tilled hemp fields. The hemp also would need to be tested to ensure that its intoxicating properties are so low as to render it useless as a drug.

Weisensel said that nine state farm organizations, including the Wisconsin Farm Bureau, the Wisconsin Farmers Union and Wisconsin's National Farmers Organization, all back the legislation.

Industrial hemp is seen as a plant that can be rotated with corn, soybeans, potatoes and other vegetable crops, but does not require heavy doses of chemicals.

#### A Paper Pulp Ingredient

One option when harvested: Blend it with pulp to make the nearly 5 million tons of paper that Wisconsin mills produce each year. Currently, more than half the wood pulp used in state mills comes from outside the state.

Paper is not a new use for hemp. Paper was invented using hemp in China more than 2,000 years ago, and the Constitution and the Declaration of Independence was drafted on hemp paper, the North American Hemp Council says.

International Paper Co. of Tuxedo, N.Y., which operates three plants in Wisconsin, has an interest in using industrial hemp to make paper, but the company has not taken an official stand on legalization, said David Kluesener, its Midwest public affairs manager.

The Wisconsin Paper Council, which represents the state's paper producers, said that it also had not taken a stand on the legalization.

galization.

But despite efforts to extol the virtues of industrial hemp, Wisconsin Attorney General Jim Doyle is against expanding the use of the plant — in any form.

"We are opposed to it," spokesman Jim Haney said. "This seems to run contrary to general state policy of fighting illegal drug use," said Haney, noting that cocaine and marijuana are the state's top two drug problems.

Introducing a new type of

marijuana could complicate drug eradication efforts that last year resulted in authorities seizing 528 cultivated plots across the state, Haney said.

Arrests for marijuana possession between 1991 to 1995 rose 99% and arrests for trafficking pot increased 46%, state crime figures show.

Mark Liedl, administrator of the marketing division of the state Agriculture Department, said his agency had pushed industrial hemp because it is "con-

stantly looking for new ways to help farmers."

"But this issue can't go forward unless law enforcement comes on board as a partner. No one wants to make law enforcement jobs more difficult," he said.

Liedl is a former federal prosecutor for the U.S. Justice Department in Washington, D.C. Said the Agriculture Department's Sholtis: "This is not a counter-culture project. We have to get past the emotion and get

at the science of developing industrial hemp."

Weisensel said his group understands that it will encounter political reluctance — and that is why it must start fouting the economic advantages of industrial hemp.

"I can't blame a legislator for being gun-shy when you have negative campaigns going on these days," he said. "We are trying to fight 60 years of misinformation with 10,000 years of history and facts."

STREET MARKET STAMPA



## Capitol Update

A Look at  
Legislation  
Affecting Farmers  
and Rural Wisconsin  
By Joan Sanstadt  
Field Editor

JULY 10, 1997, AGRI-VIEW A-7

### Industrial hemp proposal to Washington

On July 11, a delegation led by Bud Sholts, of the DATCP's Ag Development and Diversification Program, will be in Washington, D.C., to talk about the merits of industrial hemp as an alternative crop. Sholts told *Agri-View* the group has appointments with officials from the Drug Enforcement Agency and the United States Department of Agriculture. He's hoping USDA Secretary Dan Glickman will be part of the discussion.

"Now that the Canadian Government has ordered commercial growing of hemp in 1998, we're an island of denial in a sea of acceptance," Sholts says. He cites endorsement of industrial hemp by prominent researchers and academic leaders, adding, "These are people who check things out and who have a lot at risk."

"American farmers, too, have a lot at risk, if they are prevented from growing a crop that may allow them to make a profit while not damaging any other industry. As more land comes back into production, and recognizing the advances being made in science and technology, we need high-value alternative crops that can ease the production of corn and soybeans."

"USDA is projecting over a two-billion-bushel carryover of corn this year. That's already collapsed the corn price, and the agriculture industry can't handle that," Sholts says.

Recognizing fears that the DEA seems to have over allowed industrial hemp to be reintroduced, Sholts points to the "history of what's happened in England and Germany and other western democracies with similar laws to ours. Horror stories that were predicted about industrial hemp have not materialized."

Citing support from members of the Wisconsin Legislature and from the staff of the UW College of Agricultural and Life Sciences, including Acting Dean Neal Jorgensen, Sholts believes the time is approaching when the DEA and USDA have to take the approach "of asking why not reintroduce industrial hemp into this country?"

More than \$75,000 has been donated by two foundations - the Wallace Global Fund and the Turner Foundation - to help pay the cost of research and development into industrial hemp and to promote its commercialization for the paper industry, as well as textiles and a

# Industrial hemp debate rages on across country

MOUNT JOY, Pa. (KRT) — Call it a pipe dream, but when farmer M. Jane Balmer imagines the future of agriculture in Lancaster County, Pa., it is filled with sturdy fields of hemp.

Burned by sagging tobacco sales and worried over sluggish prices for other crops, Balmer has joined a small but vocal group of farmers in Lancaster County and elsewhere who are looking to boost their fortunes by raising industrial hemp, the nonintoxicating cousin of marijuana.

"It would fit right in as a replacement for tobacco," says Balmer, 60, a widowed mother of two who raises corn, barley, wheat, alfalfa, soybeans and chickens on two 200-acre farms in this pastoral borough 10 miles from the Susquehanna River.

But farmers high on the idea of raising hemp face a major obstacle: Growing the plant, which looks like marijuana but contains much lower levels of the intoxicating chemical THC, has been illegal in this country for much of the last 60 years.

Federal officials argue that allowing hemp farming would create problems in enforcing pot laws. In addition, they say, it has little commercial value.

Hemp advocates insist that farmers would find a ready market. Plants and seeds legally imported from China, Canada and elsewhere are already sold in pretzels, sneakers, nutritional supplements and even Frisbee-style disks. They argue that paper products made from hemp are environmentally friendly because they don't kill trees. Some stores even sell lingerie made from soft, silk-like hemp fibers.

So when Balmer considers hemp, she can't help but see dollar signs. A lifelong farmer and county representative for the American Farm Bureau, she has grown tobacco for 40 years but says cigarette makers, facing massive settlements for lawsuits, no longer pay what they used to.

"Twenty years back, we had 30,000 acres of tobacco raised in Lancaster County," she says. "This year, we will see 12,000. Most of us are selling tobacco at a loss."

Though some farmers, especially those in Western agricultural states, have been working with entrepreneurs and even activist/actor Woody Harrelson to push for legalization of industrial hemp, government officials say lifting the weed ban would send the wrong message.

"A potential by-product of hemp production would be a de facto legalization of marijuana cultivation," says Terry Parham, a spokesman for the federal Drug Enforcement Agency, adding that fields of industrial hemp could conceal marijuana plants.

Advocates of industrial hemp scoff at such arguments. They say the plant has 50,000 legal

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farmers and a hindrance to entrepreneurs looking to turn the stalks, seeds and oil into products and profits.

Hemp advocates promote the idea that an acre of the plant can fetch upward of \$500, compared to the \$375 that Lancaster County farmers get for an acre of feed corn.

Drug-enforcement officials dismiss those numbers as unrealistic because they are based on the assumption that demand for hemp products will quickly expand if the plant is legalized.

"The market is there, and we need to start growing," insists Shawn House, a Lancaster businessman.

House, a Libertarian Party member who opposes most government regulations, operates Lancaster Hemp Co. He sells his products, including soaps, health supplements and clothing made from hemp fiber, oil and seeds, from the trunk of a champagne-colored Ford Crown Victoria that bears a bumper sticker that reads: "Create Jobs, Protect the Environment, Buy American Hemp."

House notes that it's legal to import hemp, including sterile seeds. He argues that the prices of hemp products, including a \$60 pair of Adidas sneakers, would fall dramatically if the plants could be grown in the United States.

But, he said, getting farmers to join his crusade hasn't been easy.

"I feel like a lone salmon swimming upstream," he says.

If State Rep. Katie True has anything to say about it, House is in for a marathon. A four-term Republican who represents Lancaster County, True is an anti-drug crusader who sympathizes with such farmers as her friend Balmer but who believes that many hemp advo-