



# INDUSTRIAL HEMP: An Ancient Crop With Potential For Today's Farmers

*Presented by:  
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Maryland  
Ag. Law  
Conference*

*Nov. 8, 2018*



# What is Hemp?

- Hemp is the distinct oilseed and fiber varieties of the plant species *Cannabis sativa* L.
- Originated in China and grown for millennia
- While drug varieties of *Cannabis* contain high levels of tetrahydrocannabinol (THC), typically 15-25%, hemp contains <1% THC
- A number of countries including the US have set the legal maximum THC content of hemp crops at 0.3%
- Hemp can not be used as a drug
- Hemp is a distinct from marijuana just like Chihuahua and St. Bernard are unique breeds of same species



# Hemp is a Healthy Plant



- Can be grown without pesticides
- Requires significantly less water than cotton crops
- Fibers are naturally UV resistant
- Fibers have anti-microbial & anti-fungal properties
- Hemp hurd (woody core) can be combined with lime to create “hempcrete” for healthy homes
- Seeds are nutritious and tasty
- Cannabinoids have many therapeutic uses including dietary supplements, food & medicine



# Primary Hemp Seed Derivatives



## Hulled Hemp Seeds

Hulled Hemp Seed (also known as "shelled hemp seed" or "dehulled hemp seed") are the most concentrated and best balanced source of proteins, essential fatty acids and vitamins found in nature.



## Hemp Protein

Hemp is a complete protein, containing all nine essential amino acids, is easy to digest and contains the essential fatty acids, omega-6 and omega-3, in an optimal three to one ratio.



## Hempseed Oil

Hemp seed oil is the richest source of essential fatty acids with about 80% and has been dubbed "Nature's most perfectly balanced oil" due to its perfectly balanced 3:1 ratio of Omega 6 to Omega 3 and it also contains the very rare gamma-linolenic acid (GLA).





# Hemp Foods Are Popular





# Hemp Seed Oil For Body Care

- excellent ingredient in body care
- omega-3 and omega-6 essential fatty acids good for skin protection
- hemp oil helps make soap lather smoother and less drying
- adds superb moisturizing properties to lotions and balms





# Hemp Body Sales Grew 21%



*Walgreens*

**CVS**  
pharmacy™

**Walmart** 

**TARGET.**

- Shampoo
- Soap
- Lotion
- Lip Balm
- Shaving Cream



# Hemp Fiber



Hemp Stalk



Hemp Bast Fiber



Hemp Hurd (woody core)



# Hemp Fiber Crop

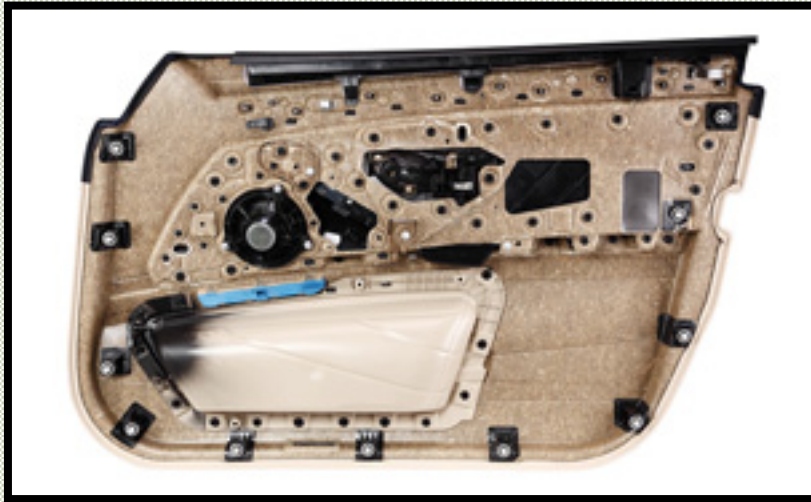


# Hemp Composites





# New Hemp Fiber Applications



BMW 5 Series door panel



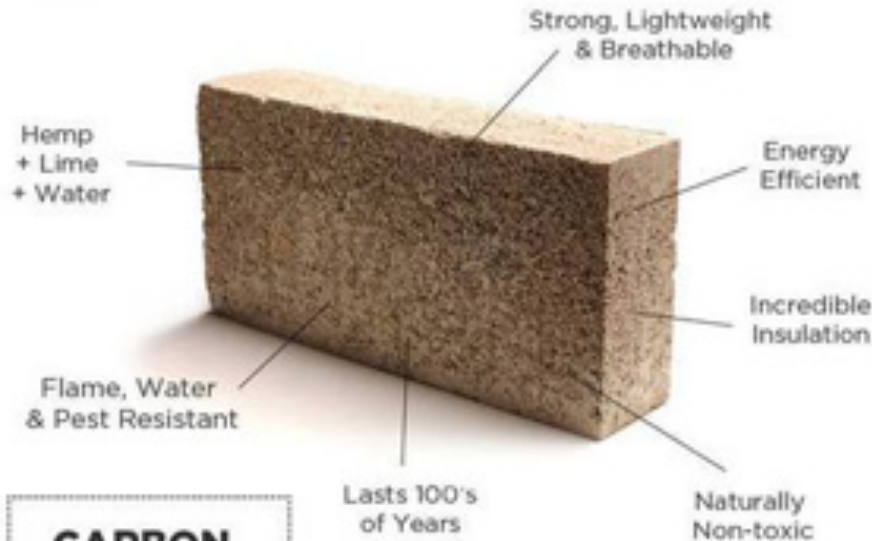
- Auto industry is specifying hemp fiber composites in interior parts like door panels
- Chrysler, BMW, Mercedes, Ford and many more using
- Lower weight as compared to fiberglass
- Competitive cost vs fiberglass
- Better crash performance
- Can be recycled at end of life



# Hemp Building Materials

Designed to build, not to smoke.

## HEMPCRETE



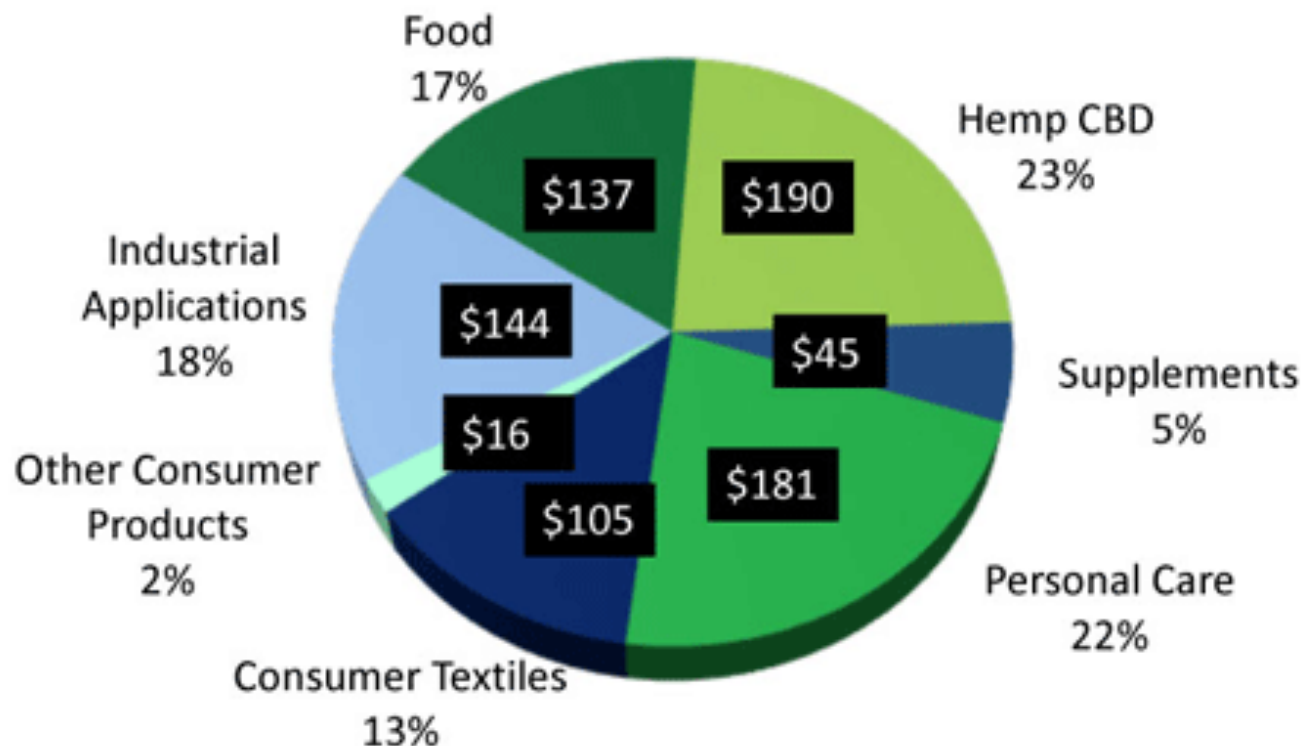
**CARBON  
NEGATIVE**

- High insulative material
- 'R factor' of 25 for 12" thickness of material
- Mold resistant, non-toxic
- Breathes naturally
- Fire resistant
- Pest resistant
- Sequesters carbon



# US Market for Hemp Products

## \$820 Million U.S. Hemp-Based Product Sales by Category in 2017



Source: *Hemp Business Journal* estimates (\$mil., consumer sales)



# Sec. 7606 Allows Pilot Programs & Research, Signed Into Law 2014

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698



1 **SEC. 7606. LEGITIMACY OF INDUSTRIAL HEMP RESEARCH.**

2 (a) IN GENERAL.—Notwithstanding the Controlled  
3 Substances Act (21 U.S.C. 801 et seq.), the Safe and  
4 Drug-Free Schools and Communities Act (20 U.S.C. 7101  
5 et seq.), chapter 81 of title 41, United States Code, or  
6 any other Federal law, an institution of higher education  
7 (as defined in section 101 of the Higher Education Act  
8 of 1965 (20 U.S.C. 1001)) or a State department of agri-  
9 culture may grow or cultivate industrial hemp if—

10 (1) the industrial hemp is grown or cultivated  
11 for purposes of research conducted under an agricul-  
12 tural pilot program or other agricultural or academic  
13 research; and

14 (2) the growing or cultivating of industrial  
15 hemp is allowed under the laws of the State in which  
16 such institution of higher education or State depart-  
17 ment of agriculture is located and such research oc-  
18 curs.



# Sec. 7606 Allows Pilot Programs & Research, Signed Into Law 2014

- Defines “industrial hemp” as distinct from marijuana “notwithstanding the Controlled Substances Act”
- Authorizes states to regulate pilot programs and research in states that allow hemp cultivation
- Projects must be conducted under the authority of the state dept. of agriculture or an institute of higher learning
- Dept. of Ag. must certify and register hemp projects and can receive hemp seed on behalf of applicants

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# USDA, DEA & FDA Issue “Statement of Principles on Industrial Hemp”

The three Agencies developed a “Statement of Principles on Industrial Hemp to inform the public how Federal law applies to activities associated with industrial hemp that is grown and cultivated in accordance with Section 7606 of the Agricultural Act of 2014.”

- ✓ USDA acknowledged the legitimate role of hemp pilot programs in the 2014 Farm Bill
- ✓ USDA agreed to support hemp research by allowing hemp projects to apply for research funding
- ✓ USDA agreed to include hemp in programs such as Organic certification, USDA Bio Preferred and others”

  
**Notices**

53395  
**Federal Register**  
Vol. 81, No. 156  
Friday, August 12, 2016

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This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

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**DEPARTMENT OF AGRICULTURE**  
**Office of the Secretary**

**DEPARTMENT OF JUSTICE**  
**Drug Enforcement Administration**

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
**Food and Drug Administration**

**Statement of Principles on Industrial Hemp**

**AGENCY:** Office of the Secretary, USDA; Drug Enforcement Administration, DOJ; Food and Drug Administration, HHS.  
**ACTION:** Notice

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**SUMMARY:** The U.S. Department of Agriculture, in consultation with the U.S. Drug Enforcement Administration and the U.S. Food and Drug Administration, has developed a *Statement of Principles on Industrial Hemp* to inform the public how Federal law applies to activities associated with industrial hemp that is grown and cultivated in accordance with Section 7606 of the Agricultural Act of 2014. The purpose of this notice is to set forth the statement in its entirety.  
**DATES:** This Statement of Principles is applicable August 12, 2016.

Section 7606 of the Agricultural Act of 2014 legalized the growing and cultivating of industrial hemp for research purposes in States where such growth and cultivation is legal under State law, notwithstanding existing Federal statutes that would otherwise criminalize such conduct. The statutorily sanctioned conduct, however, was limited to growth and cultivation by an institution of higher education or State department of agriculture for purposes of agricultural or other academic research or under the auspices of a State agricultural pilot program for the growth, cultivation, or marketing of industrial hemp.

Section 7606 authorized State departments of agriculture to promulgate regulations to carry out these pilot programs but did not provide a specific delegation to the U.S. Department of Agriculture (USDA) or any other agency to implement the program. As well, the statute left open many questions regarding the continuing application of Federal drug control statutes to the growth, cultivation, manufacture, and distribution of industrial hemp products, as well as the extent to which growth by private parties and sale of industrial hemp products are permissible. Section 7606 did not remove industrial hemp from the controlled substances list. Therefore, Federal law continues to restrict hemp-related activities, to the extent that those activities have not been legalized under section 7606.

USDA, having consulted with and received concurrence from the U.S. Drug Enforcement Administration (DEA) and the U.S. Food and Drug Administration (FDA), therefore, is issuing this statement of principles to

where the production of industrial hemp is otherwise legal under State law.

- The State agricultural pilot program must provide for State registration and certification of sites used for growing or cultivating industrial hemp. Although registration and certification is not further defined, it is recommended that such registration should include the name of the authorized manufacturer, the period of licensure or other time period during which such person is authorized by the State to manufacture industrial hemp, and the location, including Global Positioning System coordinates, where such person is authorized to manufacture industrial hemp.
- Only State departments of agriculture, and persons licensed, registered, or otherwise authorized by them to conduct research under an agricultural pilot program in accordance with section 7606, and institutions of higher education (as defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001j)), or persons employed by or under a production contract or lease with them to conduct such research, may grow or cultivate industrial hemp as part of the agricultural pilot program.
- The term “industrial hemp” includes the plant *Cannabis sativa* L. and any part or derivative of such plant, including seeds of such plant, whether growing or not, that is used exclusively for industrial purposes (fiber and seed) with a tetrahydrocannabinols concentration of not more than 0.3 percent on a dry weight basis. The term “tetrahydrocannabinols” includes all isomers, acids, salts, and salts of isomers of tetrahydrocannabinols.
- For purposes of marketing research by institutions of higher education or



# Sen. McConnell Includes Key Provision In Omnibus Funding Language

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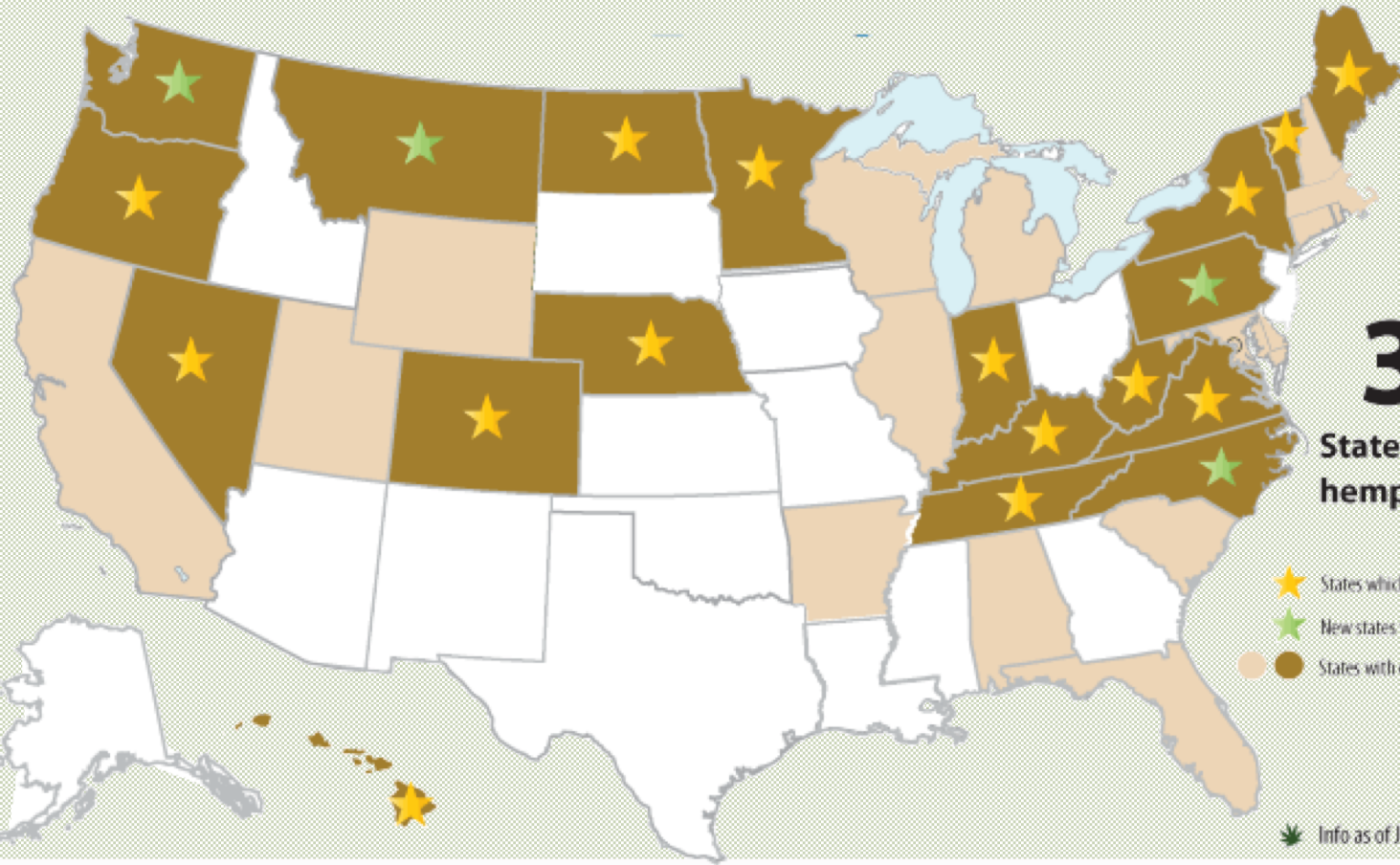
107

1       SEC. 763. None of the funds made available by this  
2 Act or any other Act may be used—

3           (1) in contravention of section 7606 of the Ag-  
4 ricultural Act of 2014 (7 U.S.C. 5940); or

5           (2) to prohibit the transportation, processing,  
6 sale, or use of industrial hemp that is grown or cul-  
7 tivated in accordance with subsection section 7606  
8 of the Agricultural Act of 2014, within or outside  
9 the State in which the industrial hemp is grown or  
10 cultivated.

# 19 States Grew Hemp in 2017



**34**

**States enacted  
hemp bills**

- ★ States which grew hemp in 2016 (15 states)
- ★ New states which started in 2017 (4 states)
- States with enacted hemp legislation (34 states)

★ Info as of January 22, 2018

## 2017 US Hemp Crop Report



# 25,541

Acres of hemp grown in  
19 states



# 32

Universities conducted  
research



# 1,456

State hemp licenses issued



[www.VoteHemp.com](http://www.VoteHemp.com)

State	2017 Acres	2016 Acres
Colorado	9,700*	5,921
Hawaii	TBD	1
Indiana	5	2
Kentucky	3,100*	2,525
Maine	30*	1
Minnesota	1,205	51
Montana	542	0
Nebraska	1	1
Nevada	417	216
New York	2,000	30
North Carolina	965	0
North Dakota	3,020	70
Oregon	3,469	500
Pennsylvania	36	0
Tennessee	200	225
Vermont	575	180
Virginia	87	37
Washington	175	0
West Virginia	14	10
<b>TOTAL</b>	<b>25,541</b>	<b>9,770</b>

\* Revised by Dept. of Ag. after initially reported

For more info: [hempinfo@votehemp.com](mailto:hempinfo@votehemp.com)

# Federal Hemp Legislation

## Mitch McConnell high on hemp provision in farm bill

Like 937 Tweet 89 Share 35



'This is an important victory for Kentucky's farmers,' said Mc

By JENNY HOPKINSON | 1/29/14 10:00 AM EST



- Majority Leader McConnell introduced S. 2667, the Hemp Farming Act of 2018 in April 2018
- The bill has 29 cosponsors and strong bipartisan support including Minority Leader Schumer
- House companion bill H.R. 5485 introduced by Rep. Coner (R-KY)
- Hemp Farming Act language was included in Senate version of the Farm Bill now being negotiated



# The Hemp Farming Act

Calendar No. 380

115TH CONGRESS  
2D SESSION

**S. 2667**

To amend the Agricultural Marketing Act of 1946 to provide for State and Tribal regulation of hemp production, and for other purposes.

IN THE SENATE OF THE UNITED STATES

APRIL 12, 2018

Mr. McCONNELL (for himself, Mr. WYDEN, Mr. MERKLEY, and Mr. PAUL)  
introduced the following bill; which was read the first time

APRIL 16, 2018

Read the second time and placed on the calendar

- Defines Hemp as “any part of that plant, including the seeds thereof and all **derivatives, extracts, cannabinoids..** with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent on a dry weight basis.
- Authorizes states to regulate with USDA oversight or allows USDA to regulate if state chooses not to
- State must submit a plan to USDA which has 60 days to approve or request revisions



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Plans must at least include:

- Records on location of hemp crops maintained for 3 years
- A procedure for inspections of crops (no more than 1 per year)
- A procedure for testing THC level to ensure compliance
- A procedure for the effective disposal of products that are produced in violation



# DEA Releases Negotiated Statement

A banner for the U.S. Department of Justice Drug Enforcement Administration's Diversion Control Division. It features the agency's logo on the left and a navigation menu with four tabs: HOME, REGISTRATION, REPORTING, and RESOURCES. Below the tabs is a collage of images including a stethoscope, laboratory glassware, a hand holding a blister pack of pills, and a group of professionals in a meeting.

U.S. DEPARTMENT OF JUSTICE ★ DRUG ENFORCEMENT ADMINISTRATION

## DIVERSION CONTROL DIVISION

**HOME**      **REGISTRATION**      **REPORTING**      **RESOURCES**

**RESOURCES** > **Controlled Substance Schedules** > **Marijuana** > DEA Internal Directive Regarding the Presence of Cannabinoids in Product Plant

## Marijuana

### DEA Internal Directive Regarding the Presence of Cannabinoids in Products and Materials Made from the Cannabis Plant

(May 22, 2018)

In 2004, the U.S. Court of Appeals for the Ninth Circuit enjoined DEA from enforcing certain regulations with respect to tetrahydrocannabinols (THC). *See Hemp Industries Ass'n v. DEA*, 357 F.3d 1012 (9th Cir. 2004). The government did not seek Supreme Court review of that decision. In response to various inquiries, DEA hereby issues to DEA personnel the following internal directive on how to carry out their duties in light of the Ninth Circuit's decision.

The Ninth Circuit enjoined enforcement of what is now **21 C.F.R. § 1308.11(d)(31)** (drug code 7370) with respect to products that are excluded from the definition of marijuana in the Controlled Substances Act (CSA). DEA thus does not enforce that provision as to such products.

Consistent with the Ninth Circuit's decision, DEA does not enforce **21 C.F.R. § 1308.35**.

Products and materials that are made from the cannabis plant and which fall outside the CSA definition of marijuana (such as





# DEA Releases Negotiated Statement

**DEA had been misinforming state regulators** and giving inconsistent information regarding legality of hemp and its derivatives. Negotiated statement clarified:

- Consistent with the Ninth Circuit's decision, DEA does not enforce 21 C.F.R. § 1308.35.
- Products and materials that are made from the cannabis plant and which fall outside the CSA definition of marijuana (such as sterilized seeds, oil or cake made from the seeds, and mature stalks) are not controlled under the CSA.
- The mere presence of cannabinoids is not itself dispositive as to whether a substance is within the scope of the CSA; the dispositive question is whether the substance falls within the CSA definition of marijuana.



**Thank you!  
Questions?**

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**eric@votehemp.com**  
**703-729-2225**

