Hemp ... Why Not?

By:
Jared Kahn

(Abstract)

Industrial hemp has been utilized as a commodity crop for centuries in the United States, and for millennia throughout the world. Today, the crop is cultivated for industrial uses in thirty countries, but not the United States. United States citizens may import hemp, eat hemp, wear hemp, and do whatever they please with a manufactured hemp product, but nobody grows the valuable crop in the U.S. Several states have legalized industrial hemp cultivation, however, the federal Drug Enforcement Agency (DEA) interprets the Controlled Substances Act (CSA) to prohibit the growing of hemp without a permit, although the non-hallucinogenic hemp parts of the plant are exempted from regulation.

Although within the same species as marijuana, *Cannabis sativa*, the variety commonly known as industrial hemp has different chemical properties that cannot get anybody 'high.' Industrial hemp is not the same as the marijuana plant targeted by drug control laws because industrial hemp does not contain psychoactive compounds. Even though hemp, a commodity crop with over 40,000 practicable uses, is specifically exempted from the Controlled Substances Act, from the Marijuana Tax Act, and from the United Nations Single Convention on Narcotic Drugs Treaty of 1961, no farmer dares cultivate a field within the U.S. with one of the world's most productive and valuable agricultural crops, even in states that recently enacted industrial hemp regulations.

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[1] *See* pt. IV (b)(ii) (Discussing *The New Hampshire Hemp Council v. Marshall* case)

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I. Introduction – Farmers In The United States Are Allowed To Cultivate 0% THC Industrial Hemp As An Agricultural Commodity Cash Crop

Industrial hemp has been utilized as a commodity crop for centuries in the United States,[2] and for millennia throughout the world.[3] Today, the crop is cultivated for industrial uses in thirty countries,[4] but not the United States.[5] United States citizens may import hemp, eat hemp, wear hemp, and do whatever they please with a manufactured hemp product, but nobody grows the valuable crop in the U.S.[6] Several states have legalized industrial hemp cultivation,[7] however, the federal Drug Enforcement Agency (DEA) interprets the Controlled Substances Act (CSA) to prohibit the growing of hemp without a permit, although the non-hallucinogenic hemp parts of the plant are exempted from regulation.[8]

Although within the same species as marijuana, *Cannabis sativa*, the variety commonly known as industrial hemp has different chemical properties that cannot get anybody 'high.'[9] Industrial hemp is not the same as the marijuana plant targeted by drug control laws because

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[2] Jack Herer, *Hemp and the Marijuana Conspiracy: The Emperor Wears No Clothes* 1 (HEMP Publishing 1990, rev. edition 1995) (In 1619 in Jamestown, farmers were ordered to grow hemp; in 1850 in the U.S., there were 8,327 hemp plantations; and, during WWII over 40,000 tons of hemp were produced in Kentucky and Wisconsin).

[3] *Id.* at 2 ("The earliest known woven fabric was apparently of hemp, which began to be worked in the eighth millennium (8,000-7,000 B.C.)" citing *The Columbia History Of The World* at 54, (1981)); *See also* John Roulac, *Hemp Horizons: The Comeback of the World's Most Promising Plant* 27-30 (Chelsea Green Publishing 1997) (detailing China's hemp cultivation that began in 4,500 B.C., and spread successfully to other Asian countries by 300 A.D.; *also* Russia's largest agricultural export was hemp during the 1700-1800's).

[4] *See* Jean Rawson, Specialist in Agricultural Policy, Congressional Research Service, Report For Congress, *Hemp As An Agricultural Commodity* 1 (2005) ("Currently, more than 30 nations grow industrial hemp as an established agricultural commodity").

[5] *Id.* at 3 ("The United States is the only developed nation in which indusrial hemp is not an established crop").

[6] *See infra* pt. IV (b)(ii) (The *New Hampshire Hemp Council* court held that hemp can be imported, manufactured, and processed because of the hemp exemption in the definition of marijuana, but, the court would not allow hemp to be grown under the same exemption).

[7] *See infra* pt. VIII (b)(i) (discussing the several states that have legalized the cultivation of industrial hemp).

[8] *See infra* pt. VI (discussing the how the DEA interprets hemp under the CSA).

[9] *See infra* pt III (a) (discussing the chemical differences between marijuana and hemp, specifically that the psychoactive ingredients are not present in hemp to induce intoxication).

industrial hemp does not contain psychoactive compounds.[10] Even though hemp, a commodity crop with over 40,000 practicable uses,[11] is specifically exempted from the Controlled Substances Act,[12] from the Marijuana Tax Act,[13] and from the United Nations Single Convention on Narcotic Drugs Treaty of 1961,[14] no farmer dares cultivate a field within the U.S. with one of the world's most productive and valuable agricultural crops, even in states that recently enacted industrial hemp regulations.[15]

The first section of this paper briefly explores the history of industrial hemp in the United States. A discussion follows in the second section which details the chemical differences between hemp and marijuana. The third section examines the treatment of industrial hemp under the Marijuana Tax Act of 1937 (MTA), and includes a statutory interpretation of the specific exclusions within the definition of marijuana, as well as a review of the legislative history and case law supporting the premise that Congress, in 1937, did not intend to shutdown the thriving industrial hemp industry. Two government industrial hemp programs, 'Hemp for Victory' during WWII and President Clinton's Executive Order are explicated in the fourth section. The fifth section discusses the CSA which repealed the Marijuana Tax Act, but also adopted the exact definition of marijuana from the Marijuana Tax Act with its specific exemptions for industrial hemp. In addition, the CSA's structure is analyzed to show the DEA's permitting authority for cultivation of industrial hemp. Various cases that interpret the CSA are reviewed to support the

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[10] *Id.*
[11] *See* Chris Conrad, *Hemp: Lifeline to the Future* (Creative Xpressions 1993) (On each page of the book is part of the alphabetical list of the 40,000 possible hemp products).
[12] 21 U.S.C. § 802(16) (2000). *See infra* pt. VI (a) (discussing the definition of marijuana that excludes the hemp, non-THC, parts of the cannabis plant).
[13] H.R. 6906 (1937).
[14] United Nations, *Single Convention On Narcotic Drugs, 1961* (Entered into force Dec. 13, 1964); *See infra* pt. VII (discussing the specific exclusion from drug control laws in Article 28 of the Treaty).
[15] *See* Hon. Ron Paul (R-Tx) Extension of Remarks, *Introduction of the Industrial Hemp Farming Act: H.R. 3037* (June 22, 2005) ("However, Federal law is standing in the way of farmers in these States growing what may be a very profitable crop"). (access via http://thomas.loc.gov/cgi-bin/bdquery/z?d109:h.r.03037 (verified July 30, 2006).

argument that industrial hemp does not fall within the definition of marijuana.[16] In the sixth section, the 1961 U.N. Treaty – the Single Convention on Narcotic Drugs – is discussed that evidences that the United States government does not include industrial non-THC hemp within the definition of marijuana and supports the commerce of hemp. The seventh section includes an analysis of current federal and state legislation proposals to study and allow the cultivation of industrial hemp. In addition, a brief overview of the international community that allows industrial hemp cultivation will be explored. Finally, the paper will conclude with what the future of industrial hemp will entail – the hurdles and hopeful victories – as well as a proposal for successful legislation that would allow for the cultivation of industrial hemp within the United States through agency regulation and oversight.

Industrial hemp is not a drug, cannot be abused like a drug, and will actually ruin marijuana when cultivated within the same fields.[17] Although the DEA's ad hoc opinions and unofficial interpretations state otherwise, industrial hemp is allowed to be cultivated and should already be growing in our fields because the crop has even been recognized as a matter of necessity for national emergencies.[18] Numerous states are legalizing industrial hemp cultivation because they understand that 0% THC hemp plants are not marijuana and the states recognize the potential economic prosperity of the crop.[19] The future of industrial hemp in the United States might depend on federal legislation that amends the CSA to specifically authorize industrial

[16] *See infra* pt. III (a) (discussing THC (scientifically referred to as delta-9 tetrahydrocannabinol), which is the main psychoactive ingredient found in marijuana plants with the THC content necessary between 3-15% to produce the inebriant effects. Industrial hemp, on the other hand, has THC content between 0%-1%, which is also countered by the anti-psychoactive compound CBD (scientifically referred to as cannabidiol).
[17] *See infra* pt. III (b) (discussing the cross-pollination from hemp to marijuana that reduces the THC content in marijuana to eliminate the psychoactive effect).
[18] *See infra* pt. V (b) (discussing Executive Order 12919 that pertains to hemp food product preparedness for national emergencies).
[19] *See infra* pt. VIII (b)(i) (Numerous states with enacted hemp legislation are moving to start permitting the cultivation of the crop).

hemp cultivation with uniform application throughout the states, or, the industry in the short term will need the DEA to grant industrial hemp cultivation permits.

II. Industrial Hemp's Historic Prominence In The United States

Until passage of the Marijuana Tax Act of 1937, industrial hemp was commonly grown throughout the Unites States as an essential agricultural commodity crop because of the vital role it played in the lives of citizens and in the economy. During the colonial period, Virginia, Massachusetts and Connecticut required landowners to grow hemp because of its highly productive value.[20] In fact, during crop shortages in Virginia between 1763 and 1767, if you did not grow hemp, you could even be thrown in jail.[21] Benjamin Franklin built the first mill to manufacture hemp into paper.[22] The first drafts of the Declaration of Independence were printed on hemp paper.[23] Many of the Founding Fathers of the United States were also some of the biggest industrial hemp farmers in the country.[24] Up until the 1800's, hemp was recognized as a form of legal tender and people paid their taxes with hemp for almost two hundred years.[25] Both the U.S. Treasury and the courts recognized hemp as a taxable commodity; courts even recognized 'Kentucky Hemp' as a common trade name that could not be trademarked.[26] And finally, industrial hemp provided vital support for the United State's success during WWII after

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[20] Herer, *Emperor Wears No Clothes* 1 (citing Clark, V.S., *History of Manufacture in the United States* 34 (McGraw Hill 1929).
[21] *Id.*
[22] *Id.* at 1 (Franklin's hemp paper mill provided the colonists with a press free from English control).
[23] *Id.* at 7.
[24] *See* Rowan Robinson, *The Great Book of Hemp* 131-135 (Park Street Press 1996) (discussing the Founding Father's hemp crops, diaries they kept about their hemp fields, and the hemp issues when they were president).
[25] Herer at 7 (citing Clark at 34).
[26] *See Goodyear Rubber Manuf'g Co., v. Goodyear Rubber Co.,* 128 U.S. 598, 603 (1888) ("Could such phrases as … 'Kentucky Hemp,' 'Virginia tobacco' … be protected as trademarks; could any one prevent all others from using them, or from selling articles … it would greatly embarrass trade, and secure exclusive rights to individuals in that which is the common right of many").

the Department of Agriculture initiated the "Hemp for Victory" campaign to sustain the Army and Navy's requirements for rope, clothing, food and oil.[27]

Not only has industrial hemp played a vital role during the history of our country, it could today provide a wide variety of benefits that no other agricultural crop can produce so easily and abundantly. Most important from a farmer's viewpoint, hemp harvests within one year,[28] grows without the need for pesticide application,[29] and actually suppresses weed growth in the fields.[30] In addition, hemp is a great source of nourishment because of its high protein content and essential fatty acids.[31] Industrial hemp provides a renewable paper source that yields four times the amount of paper per acre than trees.[32] Furthermore, industrial hemp is a source of biomass fuel that can help reduce dependency on crude oil.[33] Hemp also produces quality fibers for clothing in a more environmentally-friendly manner than cotton.[34] In addition, hemp has supplied ships with heavy-duty quality ropes for centuries.[35] Currently, the United States hemp

[27] *See infra* pt V (discussing the "Hemp for Victory" war campaign to increase hemp production in the U.S.)
[28] *See* Hearings before the Committee on Agriculture and Forestry, *Utilization of Farm Crops* at 2696, Part 10, Oct. 17, 1944, 78th Congress, 2nd Session (discussing the importance for immediate production and comparing hemp to other fibers, "Hemp is an annual plant and can be brought quickly into production. Sisal requies about 3 years to come into commercial production, henequen 5 to 7 years, and abaca 18 to 24 months").
[29] Rowan Robinson, *The Great Book of Hemp* 20,21 (Park Street Press 1996) ("The plant requires relatively little fertilizer in comparison with other fiber crops, and having few natural predators, it needs little or no treatment with pesticides").
[30] *Id.* at 21 ("After hemp is harvested, the field is left virtually weed-free for the next crop").
[31] *Id.* at 55 ("Hemp seed contains all the essential amino acids and fatty acids, and is the most complete protein to be found in the vegetable kingdom").
[32] *Id.* at 21 ("It yields four times more fiber per acre than trees do, and it absorbs heavy-metal contaminants from soil, gradually purifying the earth").
[33] *Id.* at 30-35 (discussing how the different parts of the hemp plant can all be used for biomass, oil and for energy production; by using 21% of croplands, pastures and rangelands, approximately 70-100 million acres, potentially the U.S. could be completely energy dependent on biofuels); *See also* Jonathon Green, *Cannabis* 17 (Thunder's Mouth Press 2002) ("Perhaps the most surprising of hemp's uses … the car body manufactured by Henry Ford from hemp-based plastic in 1941. The car was even fuelled by clean-burning hemp-based ethanol fuel").
[34] *Id.* at 22 (discussing the high amounts of pesticides used for cotton, for example, in 1993, over 250,000 tons of pesticides were applied to cotton fields world-wide; contrast to hemp that requires little or no pesticide application).
[35] Herer at 5, *citing* Abel, Ernest, *Marijuana: The First 12,000 Years* (Plenum Press 1980) (detailing that 90% of ship sails were made from hemp until the late 19th century).

retail industry sales are estimated at $250 million dollars a year.[36] The industrial hemp crop can provide numerous benefits for our environment, for our farmers, and for our economy.

The only catch to all of these great benefits – no farmer dares grow industrial hemp in the United States because the DEA incorrectly interprets industrial hemp to be marijuana.[37] The MTA was adopted to control marijuana use, while still specifically allowing industrial hemp production, through the creation of a tax program to protect the legitimate uses of the plant – the medical benefits derived from the marijuana/THC parts of the plant, and the industrial benefits derived from the non-THC fibers, stalks and oils of the plant.[38] With the CSA, Congress specifically excluded from the definition of marijuana the parts of the plant that compromise the non-psychoactive parts of the plant. However, even though 0% - 0.3% THC hemp plant varieties cannot induce any psychoactive effect,[39] the DEA will not allow industrial hemp to be cultivated. The result of the DEA interpretation is a higher financial burden for consumers because hemp products are only allowed to be imported from foreign countries.

III. The Chemical Differences Between Industrial Hemp and Marijuana

a. Why Industrial Hemp Cannot Get Anybody 'High'

Even though there is only one taxonomic listing, *Cannabis sativa L.*, for the various types of hemp and marijuana plants, "there are three fairly distinct types of hemp: that grown for fiber,

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[36] http://www.votehemp.com/PR/5-3-06_nd_licenses.html (access verified Aug. 13, 2006).
[37] *See infra* pt. VI (e)(ii) (discussing the *Hemp Industries Association* case, in which the court struck down the DEA's regulation that attempted to ban all hemp products).
[38] *See infra* pt. III (discussing the MTA's purpose and taxing system).
[39] *See* Hempworld, *Non-THC Hemp-seed*, ("In 1997 French Hemp-seed breeders have managed to arrive at a new true 0% THC strain called 'Santhica'") http://www.hempworld.com/Hemp-CyberFarm_com/htms/hemp-seed/no_thc_h.html (access verified July 30, 2006); *See also* 68 F.R. 14114, DEA Final Rule: *Clarification of Listing of 'Tetrahydrocannabinols' in Schedule I*, (Mar. 21, 2003) (Final Rule was struck down in *Hemp Industries Assn., v. D.E.A.*, 357 F3d 1012 (9th Cir. 2004) ("One hemp food company claims that its products are THC-free … if this is correct, such products are not controlled substances and not prohibited by the CSA");

that for birdseed and oil, and that for drugs."[40] Beyond the end product differences that distinguish the hemp variety from the marijuana plant, the industrial hemp plant is markedly different than the marijuana drug plant in the relative presence of the chemical and molecular structures that compromise the main psychoactive ingredient, delta-9-tetrahydrocannabinol (hereinafter THC), and the anti-psychoactive ingredient, cannabidiol (hereinafter CDB).[41] Scientists commonly refer to "intoxicant vs. non-intoxicant" plant varieties within the species *Cannabis sativa* because of the chemical difference.[42] Marijuana 'drug' plants contain THC content between 3-15% to produce the inebriant effects. Industrial hemp, on the other hand, has THC content between 0%-1%, which is further countered by the anti-psychoactive compound CBD.

"The non-intoxicant cannabidiol (CBD) … characterizes the resin of fiber strains [of *Cannabis sativa*], and also strains selected for the valuable oil content of the fruits."[43] The high CBD content strains are chosen for industrial hemp purposes because the higher quality and quantity of the fibers are found within the stalk. The raison d'etre of the industrial hemp plant is not to produce intoxicating 'buds' but to produce large fibrous stalks that can be used for various commercial products. Most importantly, even if the industrial hemp plant were grown to produce the 'buds' there cannot be any 'high' effect because its high anti-psychoactive CBD

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[40] Dr. David West, *Hemp and Marijuana: Myths & Realities* 7 (1998) (quoting Dr. Andrew Wright, an agronomist from the University of Wisconsin's Agricultural Experiment Station in 1918) (paper available online from the North American Industrial Hemp Council website, http://www.naihc.org).

[41] Roulac at 8 (*quoting* the Canadian government's "Fact Sheet on Regulations for Commercial Cultivation of Industrial Hemp": Hemp usually refers to varieties of the *Cannabis sativa L.* plant that have a low content of delta-9 THC and that are generally cultivated for fiber. Industrial hemp should not be confused with varieties of *Cannabis* with a high content of THC, which are referred to as marijuana").

[42] Ernst Small, *The Species Problem in Cannabis: Science and Semantics, Vol. 2: Semantics* 79 (Corpus Information Services Limited Publishing in co-operation with Agriculture Canada 1979) (discussing extreme differences found within the plant: those that contain high levels of THC and low levels of CBD which cause the inebriant effects, and those that will not produce any inebriant effect because of the high CBD chemical composite and the very low or non-existent THC content). *See also* West at 8, quoting Gabriel Nahas, M.D., Ph.D., "One should still distinguish two principal large groups of varieties of *Cannabis sativa*, the drug type and the fiber type."

[43] Small Vol.2 at 86.

levels counteract any of the THC present, practically making industrial hemp "anti-marijuana."[44] "*Cannabis* with THC below 1.0% and a CBD/THC ratio greater than one is therefore not capable of inducing a psychoactive effect."[45] Europe and Canada hemp varieties currently growing "are certified to have THC levels below 0.3%."[46] The fact that low THC levels cannot produce inebriant effects, especially in light of the counteractive effect from the CBD levels, is crucial to assuage the fears that industrial hemp will not be abused as a drug because it will not get anyone 'high'.

Furthermore, "the predominance of THC characterizes 'narcotic' strains of *Cannabis*. Drug strains do not exhibit features related to harvesting the fiber."[47] People who grow *Cannabis* for its narcotic and drug type qualities are not producing high quality fiber strains because the plants they are cultivating are bred to produce 'buds' that when smoked generate the 'high,' not the large stalks that the industrial hemp variety produces. Cultivators of the drug-type *Cannabis* plant do not produce industrial hemp plants with high CBD levels because the CBD counteracts the THC's intoxicating effect. Instead marijuana growers are focused on producing high THC plants, the exact opposite of industrial hemp plants with 0% THC content.

In addition, industrial hemp growers require the low-level THC plants in order to produce the thick stalks necessary for fibers. Dr. Lyster Dewey, the Department of Agriculture fiber expert testified at the Hearings for the Marijuana Tax Act of 1937 about the differences between the varieties of hemp plants; hemp is grown for fibers, while marijuana plants are mainly grown

[44] West at 8. ("Smoking hemp, high in CBD and very low in THC, actually has the effect of preventing the marijuana high … it could be called 'anti-marijuana'").
[45] *Id.*
[46] *Id. See also* Small Vol.1 pp. 85-102 (Tables 1-5) for a vast list of the hemp quality strains of *Cannabis sativa* which have low THC levels and high CBD levels.
[47] Small Vol.2 at 86.

for the drug.[48] Dr. Dewey explained that the hemp plant produces hard fibers, while the marijuana plant produces soft fibers that are not as adequate for rope-making.[49] Courts have distinguished between the drug parts of the plant and the industrial product parts, stating that,

> The drug is derived from the flowers or leaves of the plant while the fibers used for rope and other industrial products are taken from the stalk. Cannabis sativa plants grown for industrial products generally are derived from different strains and are cultivated and mature differently from those intended for the marijuana drug.[50]

Furthermore, Mr. Henry Anslinger, Commissioner of Narcotics, testified before the Committee of Finance for Taxation of Marijuana hearings regarding the potential for THC resin on a hemp plant, stating that "one saving feature about this whole thing so far as the farmer is concerned is that the crop is cut down before the resin reaches the nth state … before it reaches its greatest potency … a legitimate hemp producer will cut it down before the resin makes its appearance."[51] Thus, even discounting the chemical difference, hemp farmers harvest the crop before THC begins to form on the plant, and hemp farmers do not grow marijuana because the fiber content of the marijuana plant is not as substantial as the hemp plant fibers.

The term "drug" is defined as "a chemical substance, such as a narcotic or hallucinogen that affects the central nervous system, causing changes in behavior and often addiction."[52] Scientists have commonly referred to marijuana versus industrial hemp as "drug strains" versus "non-drug strains."[53] Industrial hemp with little or no THC content and with a high CBD content does not have the possibility of causing inebriant, hallucinogenic or central nervous system

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[48] Hearings before the Committee on Ways and Means, Taxation of Marijuana H.R. 6385 at 55, April 28, 1937, 75th Congress, 1st Session

[49] *Id.*

[50] *New Hampshire Hemp Council Inc., v. Marshall*, 203 F.3d 1,3 (1st Cir. 2000).

[51] Hearing before the Committee on Finance, Taxation of Marijuana H.R. 6906 at 18, July 12, 1937, 75th Congress, 1st Session.

[52] The American Heritage Dictionary of the English Language, Fourth Edition, Copyright © 2000 by Houghton Mifflin Company (accessed through http://www.dictionary.com)

[53] Ernst Small, *The Species Problem in Cannabis: Science and Semantics Vol. 1: Science* 121 (Corpus Information Services Limited Publishing in co-operation with Agriculture Canada 1979)

effects. In fact, in 1937, when it enacted Marijuana Tax Act, Congress recognized that "neither the mature stalk of the hemp plant nor the fiber produced therefrom contains any drug, narcotic, or harmful property whatsoever and because of that fact the fiber and mature stalks have been exempted from the operation of the law."[54] Even so, immediately after the MTA went into effect in 1937, the Department of Agriculture began to study how to reduce the narcotic content of the hemp plant. Mr. Robinson, an agronomist with the Department of Agriculture testified, "while investigations to date have not resulted in the production of a variety of hemp totally lacking in narcotic content, there is reason to believe from results to date that varieties can be developed sufficiently low in narcotic content that one collecting the leaves and smoking them will not obtain inebriating stimulation."[55] Decades later, a 0% THC content industrial hemp plant variety was perfected.[56] In a recent Ninth Circuit case, *Hemp Industries Assn., v. D.E.A.,* the court stated that even "the DEA makes no showing that extracts from parts of hemp seeds of stalks other than resin are used or could be used for psychoactive purposes."[57] If it is impossible to get intoxicated by industrial hemp, which is primarily grown for its fibers and oil content, then industrial hemp cannot be considered a drug and is distinguishable from the criminalized marijuana 'drug' plant.[58]

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[54] *Marijuana Taxing Bill*, Committee on Finance, Senate Report No. 900 at 4, 75th Congress, 1st Session (1937).
[55] Hearing before the Committee on Agriculture and Forestry, *Utilization of Farm Crops* at 2688, May 19, 1944, 78th Congress, 2nd Session.
[56] *See* Hempworld, *Non-THC Hemp-seed*, ("In 1997 French Hemp-seed breeders have managed to arrive at a new true 0% THC strain called 'Santhica'") http://www.hempworld.com/Hemp-CyberFarm_com/htms/hemp-seed/no_thc_h.html (access verified July 30, 2006).
[57] *Hemp Industries Assn., v. D.E.A.*, 357 F.3d 1012, 1018 (9th Cir. 2004).
[58] *See* Hon. Ron Paul (R-Tx) Extension of Remarks, *Introduction of the Industrial Hemp Farming Act: H.R. 3037* (June 22, 2005) ("Federal law concedes the safety of industrial hemp by allowing it to be imported for uses including as food") (access via http://thomas.loc.gov/cgi-bin/bdquery/z?d109:h.r.03037 (verified July 30, 2006).

b. Why The Chemical Difference Between Industrial Hemp and Marijuana Matters In the Growing Fields

In addition to the different growing protocols for industrial hemp and marijuana,[59] the reproductive biology of industrial hemp forces cultivation of the hemp plant to be completely separate from marijuana plants. The fears of those concerned with industrial hemp farmers sneaking marijuana into the fields should be alleviated by the age-old natural science of cross-pollination. The extremely low-level THC industrial hemp plants cross-pollinate with marijuana plants, which in turn brings down the THC content in the marijuana dramatically.

"If hemp does pollinate any nearby marijuana, genetically, the result will always be lower-THC marijuana, not higher-THC hemp. If hemp is grown outdoors, marijuana will not be grown close by to avoid producing lower-grade marijuana."[60] In fact, "pollen from industrial hemp being grown for seed will suppress the THC production of marijuana crops within an approximate *ten-mile* radius."[61] This natural deterrent to placement of a marijuana plant within the hemp fields should assuage concerns that growers will sneak marijuana into the hemp fields because the marijuana plant will be ruined.

Numerous investigatory results support the theory that farmers are not growing marijuana amidst their hemp fields. In a study from Germany, "in 1996, plants from more than three hundred German fields were sampled; no illegal drug cultivation was detected."[62] Great Britain reports "since hemp cultivation began in 1993, there have been very few thefts of crop and

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[59] John Roulac, *Hemp Horizons: The Comeback of the World's Most Promising Plant* 66 (Chelsea Green Publishing 1997) ("Industrial hemp growers sow seeds in very dense bunches (300-500 plants per square meter), creating a thicket that is impossible to walk through … dense planting causes the hemp to grow straight and tall, which produces the long, straight fibers best suited for processing. Marijuana growers, on the other hand, sow seeds at wide intervals (1-2 plants per square meter), and force their plants to be bushy, with as many branches as possible, to increase the number of high-potency flowering ends.").

[60] North American Industrial Hemp Council, *Hemp Facts: Scientific Facts*, http://www.naihc.org/hemp_information/hemp_facts.html. *See also* Small Vol.1 at 126, "It appears that generally crosses between drug strains and non-drug strains produce plants of intermediate potency."

[61] Roulac at 66 (emphasis added).

[62] *Id.* at 67.

diversion from licit sources has been insignificant … Hemcore, Ltd., … the largest cultivator of hemp in the United Kingdom … has had only one incident of someone stealing hemp."[63] Furthermore, before a U.S. Senate hearing in 1945, Matt Rens of the Rens Hemp Company of Wisconsin testified, "In the 30 years we have operated and grown large acreages we have never heard of one instance where there was an illicit use made of the leaves of this hemp plant."[64] Finally, Mr. Henry Anslinger, Commissioner of Narcotics, before the Committee of Finance for Taxation of Marijuana hearings, testified that legitimate hemp farmers "have not been involved in the illicit traffic at all."[65]

Whether or not the farmers knew back in the early 1900's that the industrial hemp they grew had little THC content or their limited understanding of the effects of cross-pollination, there were still no reports of hemp fields being used for marijuana growing. Farmers do not want to cultivate illegal marijuana – they want to grow and produce hemp for industrial products. Hemp farmers are not going to jeopardize their livelihood by growing marijuana plants among their hemp fields because, if caught, their farms can be seized - a risk too great for a farmer. Besides, "industrial hemp grown for fiber is harvested before it flowers, five to six weeks before marijuana growers would consider harvesting their crop,"[66] so the chances of harvesting a successful marijuana plant would be doubtful because the entire hemp field would be harvested months before the marijuana would be ready for harvest.

[63] West at 16.
[64] *Id.* at 16-17.
[65] Hearing before the Committee on Finance, Taxation of Marijuana H.R. 6906 at 17, July 12, 1937, 75th Congress, 1st Session.
[66] *See* Roulac at 66,

IV. The Marijuana Tax Act of 1937 Allowed Industrial Hemp Production

a. The Marijuana Tax Act Was Enacted As An Occupational Taxing System That Allowed The Production of Both Marijuana And Industrial Hemp

Congress enacted the Marijuana Tax Act of 1937 because numerous people were using marijuana illicitly for the psychoactive effects. However, the MTA was setup in such a way as to protect the industrial hemp industry. The purpose of the MTA[67] was to "impose an occupational excise tax upon certain dealings in marijuana, to impose a transfer tax upon certain dealings in marijuana, and to safeguard the revenue there from by registry and recording."[68] The MTA set up a 'special tax' system for importers, manufacturers, producers, physicians, researchers, and registered dealers, each with a specific annual or by-weight tariff, that would be paid annually or when the individual engaged in such activity.[69]

Congress had two objectives with the MTA, "first, the development of a plan of taxation which will raise revenue and at the same time render extremely difficult the acquisition of marijuana by persons who desire it for illicit uses; and second, the development of an adequate means of publicizing dealings in marijuana in order to tax and control the traffic effectively."[70] The accompanying House Report acknowledged that the MTA set up a revenue-raising occupational taxing system for professional individuals to continue to produce marijuana (even for medicinal purposes[71]) and hemp for industrial purposes,[72] while at the same time, controlling both the legal and illicit traffic of marijuana and hemp.

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[67] H.R. 6906 (1937).
[68] *Id. See also Smith v. U.S.,*269 F.2d 217, 220 (5th Cir. 1959) (The court accepts the MTA's purpose is to raise revenues).
[69] H.R. 6906 (§ 2 (a)(1-5)).
[70] *The Marijuana Taxing Bill,* Committee on Ways and Means, Report No. 792 at 2, 75th Congress, 1st Session, 1937.
[71] *See* H.R. 6906 (§ 6(b)(1)) (Recognizing that transfers of marijuana from physicians, dentists, veterinarians will be exempt from all such provisions of the act, except for recordkeeping and the special tax).
[72] *See infra* pt. IV (b) (discussing the specific exemption in the definition of marijuana that allows for industrial purpose hemp).

Congress specifically agreed that under the MTA there would be a legal market for marijuana and hemp. The Ways and Means Committee report states that "under its provisions all *legitimate* handlers of marijuana are required to pay occupational taxes … heavy criminal penalties are provided for manufacturing, producing or dealing in marijuana *without registering* and paying the special taxes."[73] The MTA "levies an occupation tax upon persons who deal with marijuana and requires them to register with the collector of internal revenue."[74] The MTA was set up to control the marijuana and hemp industry, not to simply outlaw marijuana and hemp, because Congress specifically recognized that there would be legitimate professionals that would only face criminal prosecution when they failed to register and pay the occupational taxes.[75] In congruence with the MTA and its internal revenue requirements, Congress enacted Internal Revenue Code provisions for the legal marijuana and hemp transfers.[76] Courts have recognized the legitimacy of the tax stamps and order forms required by the MTA for registered dealers of marijuana and hemp.[77]

If Congress had wanted to outlaw marijuana and industrial hemp they could have done so explicitly. Instead, with the MTA, Congress chose to keep the production of marijuana and industrial hemp legal because of the potential tax revenues from its production and dealings.[78]

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[73] *The Marijuana Taxing Bill*, Committee on Ways and Means, House Report No. 792.
[74] *The Marijuana Taxing Bill*, Committee on Finance, Senate Report No. 900 at 4, 75th Congress, 1st Session (1937).
[75] *See* H.R. 6906 (§ 4(a)) ("It shall be unlawful for any person required to register and pay the special tax … without having so registered and paid such tax").
[76] *See* Internal Revenue Code, § 4741 (II)(a) (1954) ("Imposition of Tax on Marijuana Transfers").
[77] *See Shurman v. U.S.*, 219 F.2d 282, 283 (5th Cir. 1955) (The defendants were found guilty of possession of marijuana because they did not produce a 'marijuana order form' or 'marijuana dealers' tax stamps' that would have proven they were legitimate dealers of marijuana).
[78] *See* Hearings Before The Committee on Ways and Means, Taxation of Marijuana H.R. 6385 at 26, April 27, 1937, 75th Congress, 1st Session. (Rep. McCormack (Ma.) stated "This is a tax measure and we might as well get the revenue out of it").

b. Congress Specifically Exempted Industrial Hemp From The Marijuana Taxing System in 1937

Under the Marijuana Tax Act of 1937,[79] there is no legal reason why legitimate hemp farming could not exist. The MTA provided a specific exemption for hemp[80] because Congress distinguished industrial purpose hemp from marijuana and was aware of the necessity for the industrial purpose exemption.[81] Today, the MTA definition with its exception is still significant because the Controlled Substances Act of 1970 (CSA)[82] adopted the exact same language to define illicit marijuana.[83]

In 1937, when Congress enacted the MTA, it defined marijuana as:

> All parts of the plant Cannabis sativa L., whether growing or not; the seeds thereof; the resin extracted from any part of such plant' and every compound, manufacture, salt, derivative, mixture, or preparation of such plant, its seeds or resin; ***but shall not include*** the mature stalks of such plant, fiber produced from such stalks, oil or cake made from the seeds of such plant, and other compound, manufacture, salt, derivative, mixture, or preparation of such mature stalks (except the resin extracted there from), fiber, oil, or cake, or the sterilized seed of such plant which is incapable of germination.[84]

Congress recognized that "the plant has many industrial uses,"[85] hence, the definition of marijuana specifically exempts stalks, fibers and other derivatives of the industrial hemp plant that are incapable of a psychoactive effect, and are the parts of the plant specifically used for industrial products. The Senate Finance Committee amended the MTA to "specifically exclude from the definition of marijuana, and consequently, from the provision of the bill, fiber produced from the mature stalks of the hemp plant."[86] Congress recognized that, "although as the

[79] H.R. 6906.
[80] *Id.* at 6906(b).
[81] *See both* The Committee on Finance, Senate Report No. 900; and, The Committee on Ways and Means, House Report No. 792, (1937) (both discussed in detail in this section).
[82] 21 U.S.C. § 801 (2000).
[83] 21 U.S.C. § 802(16) (definition for marijuana).
[84] H.R. 6906(b) (emphasis added).
[85] *The Marijuana Taxing Bill*, Committee on Ways and Means, House Report No. 792 at 1.
[86] *The Marijuana Taxing Bill*, Committee on Finance, Senate Report No. 900 at 1.

definition is now drawn it would be extremely difficult to construe it to include fiber, out of an abundance of caution, the legitimate producers of hemp for fiber purposes wished the fiber produced by them to be specifically excluded from the provisions of the bill."[87] The purpose of the hemp exemption in the marijuana definition was to ensure that "the production and sale of hemp and its products for industrial purposes will not be adversely affected by the bill."[88]

Congress' intent with the marijuana definition was that, "in general, the term 'marijuana' is defined in the bill so as to include only the flowering tops, leaves, and seeds of the hemp plant and to *exclude* the mature stalk, oil, and meal obtained from the seeds of the plant … the parts of the plant in which the *drug is not present*."[89] Congress recognized in 1937 that "neither the mature stalk of the hemp plant nor the fiber produced therefrom contains any drug, narcotic, or harmful property whatsoever and because of that fact the fiber and mature stalks have been exempted from the operation of the law."[90] The Commissioner of Narcotics, Mr. Henry Anslinger, testified before the Committee of Finance that "our experiments have not shown the presence of any drug in the mature stalk."[91] In addition, Congress recognized that "the illicit dealings in marijuana consist principally in … the leaves and tops of the plant,"[92] while the hemp industry mainly utilizes the stalk of the plant.

Congress specifically knew that the flowering top parts of the plants comprise the drug marijuana, and that the stalks, fibers, seeds, and the rest of the plant are not capable of inducing

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[87] *Id.*
[88] *Id.* at 3.
[89] *Id.* at 3,4.
[90] *Marijuana Taxing Bill*, Committee on Finance, Senate Report No. 900 at 4.
[91] Hearing before the Committee on Finance, Taxation of Marijuana H.R. 6906 at 13, July 12, 1937, 75th Congress, 1st Session.
[92] Hearings Before The Committee on Ways and Means, Taxation of Marijuana H.R. 6385 at 55, April 28, 1937, 75th Congress, 1st Session (Dr. Lyster Dewey, Fiber Expert for the Department of Agriculture, stated "The term 'hemp' is better known than marijuana because the name marijuana has been used only for the drug, while hemp is used in connection with the production of fiber.").

the psychoactive effect; hence, industrial purpose hemp was exempted from the definition of marijuana, as well as exempted from both the MTA and CSA that criminalize marijuana.

i. Testimony Provided Before Congressional Committee Hearings Supported Congress' Belief That Industrial Hemp Is Not Marijuana And Would Not Be Subject To The Provisions Of The MTA

During both the enactment of the MTA, and the consideration of amendments in 1945, testimony by agency lawyers, experts, producers and the Bureau of Narcotics assured Congress that the exempted industrial hemp parts would not contain any psychoactive ingredients, that the industrial hemp industry would be exempt from the MTA, and that farmers would be able to continue to raise hemp. Thus, Congress enacted the legislation with the belief that the industrial hemp farmer would be protected.[93]

Discussions among the Congressmen before the vote on H.R. 6906, supports the view that Congress did not intend to interfere with the industrial production of hemp.

> Rep. Robsion (Ky.) questioned, "Is this bill so drawn that it will not interfere with or injure the production of hemp for commercial purposes in a legitimate way?"
>
> Rep. Buck (Ca.) replied, "This bill defines marijuana so that every legitimate use of hemp is protected."
>
> Rep. Meeks (Ill.) questioned, "Is this substance that is called marijuana used in the manufacture of commercial articles for sale besides drugs and cigarettes?"
>
> Rep. Buck replied, "The fiber of the plant and the stem of the plant are used to manufacture twine. There are no poisonous materials contained in that fiber or stem. The poisonous material is contained in the flowering top and the leaves. That is what we define as marijuana in this bill, and that is what we propose to control."
>
> Rep. Meeks questioned again, "It does interfere with the manufacture of the fiber and the other elements of the stem?"

[93] However, the Commission of Narcotics went against his sworn testimony and enforced the MTA against legitimate hemp farmers across the country, instilling the fear of arrest into hemp farmers, which basically shut down the legitimate hemp farming industry.

Rep. Buck answers, "It will not."[94]

Thus, Representatives received specific reassurance from Rep. Buck, sponsor of the MTA, that the bill would still permit commercial and industrial uses of hemp.[95]

In addition, the testimony provided by the Commissioner of Narcotics,[96] Mr. Henry Anslinger, supports the fact that the industrial hemp industry was supposed to be exempted and allowed under the MTA. Mr. Anslinger acknowledged the legitimate uses of the hemp plant, stating "There is its use in medicine … It makes very fine cordage, and this legislation exempts the mature stalk when it is grown for hemp purposes."[97]

Mr. Anslinger also testified before the Committee on Finance hearings for Taxation of Marijuana. In response to Senator Brown's question, "What dangers, if any, does this bill have for the persons engaged in the legitimate uses of the hemp plant,"[98] Mr. Anslinger replied, "I would say they are not only amply protected under this act, but they can go ahead and raise hemp just as they have always done it."[99] Mr. Anslinger assured the congressmen that legitimate hemp farmers would be able to continue to grow industrial hemp, so long as they registered and paid the occupational tax. Since Mr. Anslinger was the Commissioner in charge of enforcing the MTA, the congressmen believed that the MTA would not be enforced against legitimate hemp farmers.

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[94] Congressional Record – House pp. 5689-90 (June 14, 1937).
[95] With 0% THC Industrial Hemp plants now available, this debate is no longer necessary to try and decide which parts of the plant will be hemp and which parts are designated the drug marijuana. With the 0% THC plant, no part of the plant is able to induce the psychoactive effect, hence, the flowering parts of the 0% THC plant will not be considered a drug. *See* Hempworld, *Non-THC Hemp-seed*, http://www.hempworld.com/Hemp-CyberFarm_com/htms/hemp-seed/no_thc_h.html (The French cultivar 'santhica' has a 0% THC content).
[96] Equivalent to the current Drug and Enforcement Agency
[97] Hearings before the Committee on Ways and Means, Taxation of Marijuana H.R. 6385 at 25, April 27, 1937, 75th Congress, 1st Session.
[98] Hearing before the Committee on Finance, Taxation of Marijuana H.R. 6906 at 17, July 12, 1937, 75th Congress, 1st Session.
[99] *Id.*

Furthermore, the testimony of Mr. Clinton Hester, Assistant General Counsel for the Department of Treasury, before the Committee on Ways and Means regarding the exemption for industrial hemp purposes, included the following statements:

> The form of the bill is such, however, as not to interfere materially with any industrial, medical or scientific uses which the plant may have. Since hemp fiber and articles manufactured there from are obtained from the *harmless* mature stalk of the plant, all such products have been completely eliminated from the purview of the bill by defining the term 'marijuana' in the bill, so as to *exclude* from its provisions the mature stalk and its compounds or manufacturers.[100]

The next day, Mr. Hester clarified his testimony regarding legitimate commercial and industrial uses of the hemp plant that fall outside the reaches of the MTA, and reiterated that the exemption would allow the continuation of industrial hemp farming.

> All legitimate users of marijuana are exempted from the provisions of this bill which imposes taxes upon transfers of marijuana … Those legitimate users of marijuana who are exempted from these transfer taxes and order form requirements, are purchasers of the mature stalk of marijuana for use in the making of fiber products such as twine, purchasers of marijuana seeds for the further planting of marijuana and the manufacture of oil, and purchasers of such oil for use in the manufacture of paints and varnishes.
>
> Although all of the above manufacturers or dealers who use marijuana are exempted from the transfer tax … they are, nevertheless, required to pay occupational taxes and register with the collector of internal revenue.
> The reason why manufacturers and importers must pay the occupational tax and register is that they will have raw marijuana in their possession, and the reason why their products are exempt is because *the drug cannot be extracted from the products*.[101]

Mr. Hester also testified before the Committee of Finance, "the production and sale of hemp and its products for industrial purposes will not be adversely affected by this bill … The hemp producer will pay a small occupational tax but his fiber products will be entirely

[100] *Id.* at 8 (emphasis added).
[101] *Id.* at 46, April 28th, 1937.

exempt."[102] Mr. Hester stated, "attention is invited to the fact that the primary purpose of this legislation is to raise revenue."[103] Mr. Hester also stated,

> Unless the Congress in this bill imposes an occupational tax upon the producers of hemp, Congress cannot make the production of hemp for illicit purposes illegal … to furnish information in connection with the business taxed … would permit the Government to ascertain where the legitimate production of hemp is being carried on, and, having this information, it can stamp out the illicit production more effectively.[104]

Mr. Hester's testimony on behalf of the Department of Treasury, the agency in charge of the MTA, acknowledged that there are legitimate industrial and commercial hemp growers that utilize the mature stalks and seeds for hemp products, and that these genuine hemp growers were exempted from the MTA because their products are harmless. Mr. Hester's testimony assured the Congressmen that legitimate hemp production would remain legal. Mr. Hester acknowledged that the purposes of the bill are, primarily, to raise revenue from hemp production, but also to identify the illicit growers of marijuana around the country. The system in place under the MTA would provide the government with adequate information as to the identity of legitimate hemp producers to ensure that they are protected by the exemption in the statute.

Furthermore, in 1945, after the Bureau of Narcotics enforced new agency adopted regulations that would require the legitimate hemp farmers to remove 90% of the flowers and leaves, the Senate Committee on Finance held hearings to further understand grower concerns to amend the MTA to exempt from tax the transfer of the plant from the farmer to the miller who produces fiber from the stalk.

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[102] Hearing before the Committee on Finance, Taxation of Marijuana H.R. 6906 at 7, July 12, 1937, 75th Congress, 1st Session.
[103] *Id.* at 8.
[104] *Id.*

After numerous hemp industry representatives testified as to the difficulties of the new regulation,[105] Senator La Follette remarked that the 1937 legislation and hearings demonstrated that the "Senate committee was very much concerned to be certain that in enacting this drastic piece of legislation they weren't putting the Bureau in a position to wipe out this legitimate hemp industry."[106] Mr. Will Wood, Deputy Commissioner of the Bureau of Narcotics, testifying on behalf of Mr. Anslinger, stated in response to Senator La Follette, "which, of course, the Bureau doesn't want to do."[107] Senator La Follette replied, "your regulation … is going to put the industry out of business."[108] Senator La Follette's proposed amendment in 1945 to the MTA to counteract the Bureau of Narcotics 90% regulation failed.

A major breach of the promises of the Narcotics Division to Congress was exposed during testimony regarding hemp production for the WWII efforts. The government sponsored a hundred-fold increase of hemp production in the United States because of fiber supply problems and the huge demand for fibers for the war effort.[109] In 1944, the Committee on Agriculture and Forestry held hearings to learn more about hemp production for WWII. Although the MTA was rarely mentioned during the hearings, the Narcotic Division's actions against hemp farmers were made known when Mr. Howard Salins, Managing Director of the Flax and Fibre Institute of America, stated, "… the Narcotic Division stepped in and ordered that, and did have all hemp plants to be destroyed, wild or otherwise, wherever found, and forbade the future planting of this

[105] Hearing Before The Committee on Finance, Hemp and Marijuana H.R. 2348 at 1-17, May 24, 1945, 79th Congress, 1st Session
[106] Hearing before the Committee on Finance, Hemp and Marijuana H.R. 2348 at 18, May 24, 1945, 79th Congress, 1st Session.
[107] *Id.*
[108] *Id.* (Eventually, this 90% regulation was probably part of the crumble of the entire legitimate hemp industry because legitimate farmers would have to pay a tax that, as Sen. La Follette put it, "would wipe out anybody that was in the businesses and all of their children for three or four generations by reason of the fact that they have to pay the tax." *Id*).
[109] *See infra* pt. V (a) (discussing the "Hemp for Victory" war campaign to increase hemp production in the U.S.)

hemp anywhere."[110] Additional testimony from Mr. Robinson, an agronomist with the Department of Agriculture, stated that, "when the Marijuana Act became effective in 1937 our research work was centered primarily to get a variety of hemp with as low narcotic content as it was possible to obtain."[111] While the industry was attempting to comply with the Narcotic Division's demand for a hemp plant that did not produce a psychoactive effect, the Narcotic Division still took action to eradicate the legitimate hemp industry, despite the earlier testimony that the industry would remain intact and would be protected under the MTA.

ii. Case Law Recognizes The Exemption Within The Definition of Marijuana For Legitimate Industrial Hemp Production

When the MTA was enacted in 1937, Congress specifically defined marijuana with an exception to exclude the parts of the plant that are used for industrial hemp production.[112] After sworn testimony and promises from Mr. Anslinger that the hemp industry would remain legal, Congress' concerns that the commercial hemp industry would face problems with the MTA were assuaged, and the congressmen believed that the farmers would be protected under the exemption written into the definition for marijuana.[113]

Courts asked to explore the exemption in the MTA have concluded that "the definition of marijuana in the statute [is] 'complicated and confusing,'"[114] and even the description of 'complicated and confusing' "may seem a pardonable understatement."[115] However, the court in *Smith v. U.S.*, did determine that an exemption within the marijuana definition existed because

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[110] Hearings before the Committee on Agriculture and Forestry, *Utilization of Farm Crops* at 2627, Part 9, May 3, 1944, 78th Congress, 2nd Session.
[111] *Id.* at 2684, May 19, 1944.
[112] *See supra* pt. IV (b) (discussing the definition of marijuana and the congressmen's knowledge about the parts of the plant that can be used for industrial purposes versus the parts of the plant used for the drug-inducing effects).
[113] *See supra* pt. IV (b)(1) (a review of the legislative history provides evidence that the MTA was supposed to be setup to keep the hemp industry in tact).
[114] *Shurman v. U.S.,* 219 F.2d 282, 292 (5th Cir. 1955).
[115] *Smith v. U.S.,* 269 F.2d 217, 221 (D.C. App. 1959).

the court recognized that the statutory scheme required that "all persons who seek 'exemptions' from the statutory requirements must bear the burden of proving their entitlement to any such exemption."[116] While the defendant in *Smith* did not meet his burden of proof because his marijuana cigarettes were never determined to be made from the parts of the plant that are excluded from MTA regulation, the court left open the possibility that one could prove entitlement to the exemption.

In *U.S. v. Honneus*,[117] the court held that "there is indeed evidence of confusion over terminology, but none that Congress meant to exclude from regulation any type of the plant producing the hallucinogenic material popularly known in this country as 'marijuana.'"[118] The court recognized that the purpose of Congress' definition of marijuana was to include within its scope the parts of the plant that induce the psychoactive effect, and "to exclude those parts which do not."[119] Although the court admitted that the definition is confusing, exemptions do exist for the parts of the plant that do not cause the inebriating effects because the MTA's intent was to control the drug inducing parts of the plant that are used for illicit purposes.

Additionally, in *New Hampshire Hemp Council Inc., v. Marshall,*[120] the 1st Circuit recognized the exemption within the definition of marijuana in the MTA, but still upheld the DEA's opinion that industrial hemp was illegal to cultivate under the current CSA statutory scheme. The court reasoned that the MTA had an exemption, which the "basic definition covered all cannabis sativa plants whether intended for industrial use or drug production … but the statute effectively distinguished between them by taxing them differently."[121] The court held

[116] *Id.*
[117] 508 F.2d 566 (1st Cir. 1974).
[118] *Id.* at 575.
[119] *See U.S. v. Walton*, 514 F.2d 201, 203 (D.C.App. 1975).
[120] 203 F.3d 1 (1st Cir. 2000).
[121] *Id.* at 7.

"that Congress' main vehicle for protecting industrial-use plant production in 1937 was not its basic definition of 'marijuana,' which included plants ultimately destined for industrial use; it was the complex scheme of differential tax rates and other requirements for transfers"[122] that would allow a farmer to grow industrial hemp. The court continued that the CSA statutory scheme does not provide for a taxing system, which the court ultimately believed was the essential tool allowing for industrial hemp production under the MTA, not simply the exemption in the definition of marijuana that excluded the mature stalks of the plant. However, the court did not include a discussion of the CSA's registration system that is used for banned substances.[123]

However, the court in *New Hampshire* conceded that "of course, stalks and fibers can still be possessed (hemp fibers are not grown in the United States but can be imported), but that is because of the explicit carve-out contained in the statute."[124] The court was willing to apply the definition carve-out for products, but would not extend carve-out to production. Even though both the MTA definition and the CSA definition exclude mature stalks from the purview of illegality, and in the court's view the only way to have legal industrial hemp cultivation was under the MTA's taxing system and not under the exemption in the definition of marijuana. This is inconsistent with the court recognition that one can legally import, possess, and process the mature stalks and still fall within the exemption of marijuana, even though the taxing system is no longer setup for transfers of hemp products under the CSA.[125] The court has narrowly

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[122] *Id.*
[123] *See infra* pt. VI (c) (discussing the CSA registration process and how industrial hemp qualifies for a permit).
[124] *Id.*
[125] *See also Limbach v. Hooven & Allison*, 466 U.S. 353, 355 (1984) ("Hooven is a domestic manufacturer of cordage products made from natural fibers. These fibers – *hemp*, sisal, jute, manila, and the like – are not grown in the United States and must be imported." (emphasis added) The tax case recognized the legitimate importation of hemp fibers, and the Supreme Court did not touch on the fact that hemp fibers might contain THC that would make the products illegal under the DEA's interpretation. (*See infra* pt. VI (d)(i) (discussing the DEA's stated belief that all hemp products are illegal because they would contain THC).

construed the MTA and the CSA to only allow importation and consumption of industrial hemp products and will not allow the cultivation of industrial hemp.

Case law recognized that the MTA allowed farmers to grow industrial hemp because of the exemption of mature stalks in the marijuana definition, so long as the farmers properly registered for the tax stamps and order forms, and were able to prove they fell within the definition's exemptions. *New Hampshire Hemp Council* held that the MTA's parallel tax system was required for the exemption to be fully enforceable, but the court also held that the exemption was applicable without the tax system for manufacturing and processing hemp. The *New Hampshire* case thus provides an inconsistent holding concerning whether the exemption in the definition is sufficient for hemp to be legal, or whether the tax system is required, nor did the court explore the permit registration program under the CSA. Apparently, industrial hemp product is legal for importation, distribution and consumption because of the exemption, not the tax system because the tax structure is no longer in place, and yet hemp products are permissible. However, growing industrial hemp is illegal.

V. The Federal Government Orders Farmers To Grow Industrial Hemp

a. The U.S. Government Rallies Farmers To Grow Much Needed Industrial Hemp For WWII

When the United States entered into the WWII conflict, the "importation of fibers for textiles and rope was curtailed"[126] because the Japanese began to "interfere seriously with our supplies from the Orient."[127] In response to the shortage, the War Production Board, in consultation with

[126] John Roulac, *Hemp Horizons: The Comeback of the World's Most Promising Plant* 55 (Chelsea Green Publishing 1997)
[127] Samuel McCrory, Director Hemp Division, USDA, Hearings Before Committee on Agriculture and Forestry, *Utilization of Farm Crops* at 2480, April 5, 1944, 78th Congress, 2nd Session.

the USDA and the US Army, decided to increase hemp production in the United States.[128] The campaign, entitled "Hemp for Victory"[129] called for the "USDA to arrange to produce, in 1943, 50,000 acres of hemp for seed and 300,000 acres of hemp for fiber."[130] The USDA and War Productions Board chose hemp, because "products made from American hemp … are 5 to 15 percent stronger than like products made from jute or istle and equal or superior in wearing qualities when in use,"[131] and, hemp matures for harvest within one year, while the other fiber plants require a couple years to grow before harvest.[132]

The USDA issued Farmers' Bulletin No. 1935, 'Hemp' in January 1943, which stated that "hemp is now a strategic war crop … your government is sponsoring the expansion of the hemp industry, and farmers will be assisted in the production, handling, and marketing of this crop."[133] The Bulletin stated that "any farmer planning to grow hemp must comply with certain regulations of the MTA of 1937."[134] Ironically, the MTA, enacted only five years prior,

> Was designed to allow the legitimate hemp industry to continue … so, under the definition that is still on the books today, and with USDA encouragement, American farmers performed their patriotic duty by increasing hemp cultivation and processing, just as Harry Anslinger had assured Congress that they would be able to.[135]

The USDA relied on the MTA's registering system and definition exemption for industrial hemp production for the hemp war campaign.

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[128] *Id.* at 2496.
[129] Roulac at 54.
[130] McCrory hearing testimony at 2481.
[131] Edwin Metcalf, Chief of Cordage Branch, War Production Board, Hearings Before Committee on Agriculture and Forestry, *Utilization of Farm Crops* at 2507, April 7, 1944, 78th Congress, 2nd Session
[132] *See* Hearings before the Committee on Agriculture and Forestry, *Utilization of Farm Crops* at 2696, Part 10, Oct. 17, 1944, 78th Congress, 2nd Session (discussing the importance for immediate production and comparing hemp to other fibers, "Hemp is an annual plant and can be brought quickly into production. Sisal requies about 3 years to come into commercial production, henequen 5 to 7 years, and abaca 18 to 24 months").
[133] *Id.*
[134] Farmers' Bulletin No. 1935, HEMP, USDA, Issued 1943.
[135] Roulac at 56.

The lengthy Bulletin also described how to plant, grow, harvest and process industrial hemp.[136] Interestingly, the government called the campaign "Hemp for Victory," and not "Marijuana for Victory," signifying that the government recognized the difference between the two.[137]

The "Hemp for Victory" campaign was short-lived and came to an abrupt halt when WWII ended. The Committee on Agriculture and Forestry held hearings to determine the status of the hemp program during the war, and specifically discussed the future of the hemp farming industry post-WWII. Senator Gillette (Iowa) was concerned about meeting the exigencies of WWII, but he also expressed much concern about the long-range impact of the hemp industry in the United States, stating,

> But this committee, of course, is interested in the long-range viewpoint, the possibility of the utilization of a crop of this kind domestically grown in normal times, and it is for that reason that we are making these inquiries.[138]

In response to the Senator's long-term concerns, Mr. Arthur Howe of the War Production Board told the Senator,

> We are not bidding on the end of the war … we have not abandoned the hemp program. We will continue to grow hemp. We now have a nucleus of 42 mills. We now have more experience than we had before. That program expanded very rapidly, and if necessary, we certainly recommend that it be expanded very rapidly.[139]

Although the United States had successfully increased the hemp production capacity by nearly one hundred fold of pre-war output,[140] the Senator's desire for the hemp industry to continue after the war ended did not succeed.[141] "Hemp for Victory" was only victorious for the United

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[136] *Id.*
[137] Roulac at 55.
[138] Hearings before Committee on Agriculture and Forestry, *Utilization of Farm Crops* at 2509, April 7, 1944, 78th Congress, 2nd Session.
[139] *Id.* at 2539.
[140] *Id.* at 2697.
[141] Roulac at 56 (The "U.S. government cancelled virtually all hemp-farming permits").

States' successful WWII efforts, even though the USDA, the Army, and Congress witnessed the crop's flourishing abilities.

b. A Presidential Executive Order Requires Industrial Hemp To Be Grown For National Emergency Preparedness

Fifty years after the "Hemp for Victory" campaign, the federal government again realized that industrial hemp production was vital for national defense. In 1994, President Clinton signed the "National Defense Industrial Resources Preparedness" Executive Order 12919 (E.O. 12919)[142] because "the United States must have an industrial and technology base capable of meeting national defense requirements, and capable of contributing to the technological superiority of its defense equipment in peacetime and in times of national emergency."[143] The Executive Order's functions were to identify requirements for national security, assess the capability of the domestic industrial base, and to "be prepared, in the event of potential threat … to ensure the availability of adequate industrial resources and production capability."[144] President Clinton's Executive Order required the relevant government agencies[145] to assess and ensure the adequacy of the industrial base of the United States before, during and after any national security threat.

President Clinton ordered the expansion of productive capacities and supplies for critical materials necessary for energy requirements, food resources, and defense capabilities.[146] The Secretary of Agriculture was delegated authority to ensure that food resource supplies and

[142] 59 F.R. 29525, Executive Order 12919 *National Defense Industrial Resources Preparedness* (June 3, 1994).
[143] *Id.* at § 102.
[144] *Id.* at §103 (a-c).
[145] *Id.* (*See* E.O. 12919 § 201 – delegation of duties involves numerous government agency departments, including Defense, Agriculture, Energy, Health and Human Services, Transportation, and Commerce).
[146] *Id.* at § 301-312 (E.O 12919 authorizes the department heads to encourage the development of critical and strategic materials for energy, technology, equipment, national defense, and food resources).

necessary food resource equipment would be stocked and prepared for national security purposes.[147] 'Food resources' is defined as

> all commodities and products, simple, mixed or compound … that are capable of being ingested by either human beings or animals, irrespective of other uses to which such commodities … means all starches, sugars, vegetable and animal or marine fats and oils … *hemp*, flax, fiber … but does not mean any such material after it loses its identity as an agricultural commodity or agricultural product.[148]

President Clinton included hemp as an essential agricultural food resource for national security purposes. Hemp's capabilities for human and animal ingestion, fibers, and other uses make it a vital crop to prepare for national emergencies.

In addition, hemp is distinguished from marijuana in E.O. 12919 by the specific statement that a food resource does not include its identity as a commodity beyond its agricultural purposes. Since marijuana 'buds' can be grown with hemp, although unable to produce an intoxicating effect, the Executive Order applies only to the industrial and agricultural uses of the hemp plant. Thus, the federal government was aware of the difference between industrial hemp's agricultural output versus marijuana output, just as the government recognized the difference between hemp and marijuana during the 'Hemp for Victory' campaign during WWII. President Clinton's E.O. 12919 demonstrates that industrial hemp is an essential industrial resource, as well as the "farthest designation from an 'opiate' imaginable.[149]

VI. The Controlled Substances Act of 1970 And Its Influence On Industrial Hemp

Just as the Marijuana Tax Act of 1937 was adopted with the specific exemption for industrial hemp in the definition of marijuana, Congress, in 1970 enacted the

[147] *Id.* at § 201 (a)(1).
[148] *Id.* at § 901(e) (emphasis added).
[149] Roulac at 64.

Controlled Substances Act with the identical marijuana definition that exempts industrial hemp.[150] Hence, Congress intended that the agricultural crop be grown in the United States. However, Congress did not adopt the MTA taxing system, and instead replaced it with a registration system that would allow applicants to apply for manufacturing permits to avoid criminal penalties.[151]

a. *Industrial Hemp Is Exempted From The Definition of Marijuana And Should Not Be Classified As A Drug*

When Congress replaced the MTA with the new drug control statute, the CSA, Congress adopted, with no debate or changes, the exact definition of marijuana as that found in the MTA. The CSA defines marijuana as,

> All parts of the plant Cannabis sativa L., whether growing or not; the seeds thereof; the resin extracted from any part of such plant' and every compound, manufacture, salt, derivative, mixture, or preparation of such plant, its seeds or resin. Such term ***shall not include*** the mature stalks of such plant, fiber produced from such stalks, oil or cake made from the seeds of such plant, and other compound, manufacture, salt, derivative, mixture, or preparation of such mature stalks (except the resin extracted there from), fiber, oil, or cake, or the sterilized seed of such plant which is incapable of germination.[152]

Congress' specific choice to exclude the stalk, fibers, oils, sterilized seeds and other parts of the plant that do not contain the psychoactive ingredient THC, which is found in the resin and 'buds' formed on the plant, indicates that Congress intended to exempt from the drug control law the parts of the hemp plant that are incapable of inducing drug-like effects. The exempted parts of the plant can only be used for industrial, agricultural and nutritional uses and cannot be used for recreational drug use.

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[150] 21 U.S.C. § 802(16) (2000).
[151] 21 U.S.C. § 823, 824. (*See also U.S. v. Plume*, 447 F.3d 1067, 1072 (8th Cir. 2006) ("The CSA abandoned the Tax Act's complex tax scheme in favor of criminal sanctions (which could be avoided by a DEA registration), as a way to regulate marijuana production and distribution").
[152] 21 U.S.C. § 802(16).

The fact that marijuana is an illegally controlled substance does not mean industrial hemp plants with no THC are illegal. Industrial hemp is a completely different plant than the marijuana plant.[153] However, even if a marijuana plant is grown, there are certain parts of the marijuana plant that can still be utilized for industrial hemp purposes, such as the stalk, fibers, cakes, etc., that Congress specifically exempted from the marijuana definition because those parts of the plant do not contain the resin or THC.[154] Congress's specific exemption for the parts of the marijuana plant that do not contain THC supports the premise that Congress would allow 0% THC industrial hemp plants because the industrial hemp plant does not produce a controlled substance.[155] The DEA has even conceded that "one hemp food company claims that its products are THC-free … if this is correct, such products are not controlled substances and not prohibited by the CSA."[156]

If Congress allowed the hemp parts of the marijuana plant that could have the potential to produce THC, even though the CSA does not allow 'any quantity' of a substance, then Congress must have intended to also allow the industrial hemp plant that has 0% THC with no potential for intoxication.

b. The CSA Structure and Factors For Consideration When Controlling or Removing Substances

In the CSA, Congress defined 'drug' to mean, "articles (other than food) intended to affect the structure or any function of the body of man or other animals."[157] Thus, Congress intended the term 'drug' to apply to substances that influence the behavior of man or animals. In

[153] *See supra* pt. III (discussing the chemical and physical differences between the hemp plant and marijuana plant).
[154] *See supra* pt. III (a) (testimony from Congressmen and the Narcotics Commissioner that acknowledge the THC is not found in the stalks, and the flowering 'buds' are primarily the part grown for drug use).
[155] 21 C.F.R. § 1308.11 (d) (Schedule I Listings) (The CSA seeks to control "any material, compound, mixture, or preparation, which contains any quantity of the following hallucinogenic substances …).
[156] *Id.* at 14118.
[157] *Id.* at § 802(12) (adopting the definition of the term drug from 21 U.S.C. §321(g) (2000).

turn, Congress did not intend to control the industrial hemp plant under the drug laws because the plant does not contain any of the psychoactive chemical THC, which is the intoxicating and behavioral changing compound found in marijuana plants (any minute amount of THC found in an industrial hemp plant is counteracted by the CBD chemical found within the hemp plant).[158] The industrial hemp plant cannot be considered a drug if there is no intoxicating effect. The DEA conceded that THC-free hemp products are both legal and possible, because there are no psychoactive ingredients to cause intoxication. "One hemp food company claims that its products are THC-free … if this is correct, such products are not controlled substances and not prohibited by the CSA."[159]

When determining whether to control or remove a substance from the purview of the CSA, the Attorney General must consider the following factors:

1) Its actual or relative potential for abuse.
2) Scientific evidence of its pharmacological effect, if known.
3) The state of current scientific knowledge regarding the drug or other substance.
4) Its history and current pattern of abuse.
5) The scope, duration, and significance of abuse.
6) What, if any, risk there is to public health.
7) Its psychic or physiological dependence liability.
8) Whether the substance is an immediate precursor of a substance already controlled under this chapter.[160]

The factors indicate that industrial hemp should not be a controlled substance. Because industrial hemp cannot produce an intoxicating effect, the only potential for abuse is by someone who desires addiction to unpleasant side effects – which is not the norm of a drug addict who generally uses a substance for its pleasurable effects. As noted by Dr. William Pierce Jr., of the

[158] *See supra* pt. III (discussing the different chemical structure of the hemp plant versus the marijuana plant and why the hemp plant is unable to produce any intoxicating effect).
[159] *Id.* at 14118.
[160] 21 U.S.C. § 811(c)(1-8).

Department of Pharmacology and Toxicology at the University of Louisville School of Medicine in Kentucky,

> It is absurd, in practical terms, to consider industrial hemp useful as a drug … while a person could choose to use hemp in this way, it is unlikely that he or she would repeat the behavior, due to the unpleasant side effects (mainly headaches and no 'high' effect) … it is possible to get drunk on 'non-alcohol' beer, but no one does it. The amount necessary is far too great. Nutmeg contains a psychoactive substance that could be abused, but no one does it (too many side effects).[161]

Potential for abuse must be considered in light of the positive intoxicating effect that a person will receive. For example, chocolate, McDonald's hamburgers, or soda are products that cause people to abuse the substance, yet they are not controlled under drug laws. Since there are no intoxicating effects that alter the chemical function or behavior of a person, there is no potential for abusing industrial hemp as a drug.

In addition, current scientific evidence proves that there is no pharmacological effect from ingesting or smoking industrial hemp. Since little or no THC is present in industrial hemp plants, and since the other chemical compound in industrial hemp, CBD, counteracts the psychoactive effect, scientists have already proven that there is no intoxicating pharmacological effect from industrial hemp.[162]

Furthermore, there is no evidence of a historical pattern of abuse of industrial hemp as a drug. To the contrary, historical evidence demonstrates that the Narcotics Commissioner, as well as Congress, knew that the industrial hemp plant did not produce intoxicating effects. Both admitted that the drug is found in the flowers of the marijuana plant, not in the fibers, stalks or sterilized parts of the hemp plant.[163] Without any evidence of a history of abuse, or relative

[161] Roulac, *Hemp Horizons* at 7.
[162] *See supra* pt. III (discussing the chemical structure of industrial hemp and why it is impossible for the industrial hemp plant to induce intoxication, unlike marijuana that contains high levels of the inebriating substance THC).
[163] *See supra* pt. IV (b) (citing testimony from Mr. Anslinger, as well as the Finance Committee's Senate Report).

potential for abuse, there is no evidence that points to any scope or duration of a significant abuse problem with industrial hemp. There will be no psychic or physiological dependence liability because people are not able to get intoxicated from industrial hemp, hence, no one can or will abuse it as a drug.

Additionally, if the industrial hemp plant is unable to produce an intoxicating effect, there are no risks to the public health from ingesting industrial hemp. The government might and indeed does claim that the risk to public health results from marijuana that is grown under the guise of industrial hemp because marijuana is a public health risk. But marijuana is already targeted and controlled for that specific reason, and if someone is growing marijuana, they will be prosecuted because it is a controlled substance. In addition, since industrial hemp cross-pollinates and reduces the marijuana THC content to levels that cannot produce intoxicating effects, the chances of an individual growing marijuana within an industrial hemp field is low.[164]

Finally, industrial hemp is not an immediate precursor of a substance already controlled by the CSA because industrial hemp plants do not contain the same THC as marijuana to intoxicate people.[165] Most hemp plants do not contain THC. At best, some hemp plants might contain 0.3% THC, but, this would be counteracted by the CBD chemical.[166] In addition, a hemp plant that might contain a trace amount of THC will be harvested before any THC begins to form in the resins of the plant because the primary purpose of farming hemp is for the fibers, not the resin.[167] An interesting analogy of an agricultural crop still produced, even though it might be a precursor to a later controlled substance, is wheat and hops during alcohol Prohibition.

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[164] *See supra* pt. III (b) (discussing that cross-pollination will deter farmers from growing marijuana among the hemp. In addition, discussing the fact that no incidences have been reported where a farmer has been growing marijuana within hemp fields).
[165] *See supra* pt. III (a) (discussing the differences chemical differences between hemp and marijuana plants).
[166] *Id.*
[167] *Id.* (*see quoted* testimony of Mr. Anslinger, "one saving feature about this whole thing so far as the farmer is concerned is that the crop is cut down before the resin reaches the nth state … before it reaches its greatest potency … a legitimate hemp producer will cut it down before the resin makes its appearance").

Certainly, the government was not willing to outlaw wheat production just because wheat could eventually be used for alcohol brewing.

Industrial hemp might be considered a precursor to an already controlled substance, such as either marijuana or THC, both regulated as controlled substances under the CSA.[168] However, industrial hemp THC is not a precursor to marijuana THC because the THC in hemp does not produce an intoxicating effect because of the counter-effect from the high level of CBDs present in industrial hemp.[169] The term 'precursor' is defined as "a biochemical substance, such as an intermediate compound in a chain of enzymatic reactions, from which a more stable or definitive product is formed."[170] Hemp THC does not constitute a precursor to marijuana THC because the final chemical product has different effects, hence, hemp THC does not result in the formation of the same marijuana THC. In addition, hemp can eventually be grown to the flowering stage where the resin will contain THC, but the hemp plant is harvested prior to this stage, and, the flowering resin usually contains 0% THC that cannot produce a high, hence, the hemp plant does not form the more derivative marijuana THC compound.

c. The CSA Permits Registration To Produce Controlled Substances

While the DEA construes the CSA to prohibit the growing of industrial hemp, it is possible to get a permit to grow industrial hemp under the CSA.[171] With the adoption of the CSA, Congress repealed the MTA taxing system, and replaced it with criminal sanctions that can only be avoided with proper registration.[172] Registering for the permit to grow industrial hemp

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[168] *See* 21 C.F.R. §1308.11 (22), (30) (2005) (The list of Controlled Substances).
[169] *See supra* pt. III (a) (discussing the CBD levels in hemp counter any THC that might be present in the hemp plant).
[170] T*he* American Heritage Dictionary of the English Language*,* (4th Ed. Houghton Mifflin Company) (2000) (http://www.dictionary.com, accessed July 29, 2006).
[171] 21 U.S.C. § 822.
[172] *Id.*

concedes that industrial hemp is the drug marijuana, which is an incorrect interpretation of the plant structures, but registration may be the only way to obtain DEA approval to farm industrial hemp.

However, the DEA permit registration requires an industrial hemp farmer to surround the acres "by chain length fencing with razor wire top, and a 24-hour infrared security system."[173] The *White Plume* court, discussed below, recognized that the tribe should register, however the court stated that it concedes that it cannot "ignore the burdens imposed by a DEA registration necessary to grow hemp legally, such as the security measures required by the regulations."[174] The onerous requirement to surround large acreage with barbed wire fencing is tremendously expensive and impractical for farmers; in turn, the DEA's stringent requirements are also a deterrent to farmers who simply want to cultivate industrial hemp because they will not be able to afford to comply with the regulations.

The CSA requires and permits any person who desires to manufacture, distribute or produce a controlled substance to "obtain annually a registration issued by the Attorney General."[175] The Attorney General "shall register an applicant … if he determines that such registration is consistent with the public interest and with United States obligations under international treaties, conventions, or protocols in effect …"[176]

The CSA permits a farmer to register to grow industrial hemp. "Strictly speaking, the CSA does not make *Cannabis* illegal; rather, it places the strictest controls on its production, making it illegal to grow the crop without a DEA permit."[177] When President Clinton signed

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[173] http://www.marijuananews.com/marijuananews/cowan/hawaii_gets_dea_permission_to_gr.htm (discussing the Hawaii pilot program approved by the DEA that required the expensive and difficult requirements) (accessed verified Aug. 13, 2006).
[174] *U.S. v. Plume*, 447 F.3d 1067, 1076 (8th Cir. 2006).
[175] *Id.* at § 822(a)(1).
[176] 21 U.S.C. § 823(a).
[177] CRS Report for Congress, *Hemp as an Agricultural Commodity* 3 (2005).

Executive Order 12919, the federal government acknowledged that hemp is an essential natural resource that needs to be produced for national security reasons – just as hemp was grown for WWII. Executive Order 12919 was initiated for the public interest, to ensure that there are adequate supplies and food resources available during national security emergencies. The Attorney General should approve an applicant's registration to grow industrial hemp because the Executive Order protocol is in effect in this country to ensure the public interest is protected.[178] The registration should also be approved because of the U.S. treaty obligations to recognize industrial hemp as a commodity crop.[179]

The Attorney General already permits numerous listed opiate controlled substances to be manufactured and distributed in this country, such as morphine,[180] codeine,[181] and methadone,[182] so long as the person registers with the Attorney General. These common medications are permitted in the public interest as a medical need. And yet, prescription drugs are abused and cause high rates of addiction and death.[183]

Furthermore, one of the factors to consider in order to determine whether it is in the public interest includes, "maintenance of effective controls against diversion of particular controlled substances …"[184] In order to be granted a public interest permit exception, the

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[178] *See infra* pt. VIII (discussing the *Single Convention On Narcotic Drugs*, Article 28, exempts from drug control laws the industrial uses of the cannabis plant. The Attorney General must also consider this obligation when reviewing an applicant's registration for industrial hemp).
[179] *Id.*
[180] 21 C.F.R. § 1308.11(c)(15-17) (Morphine is prescribed by doctors and veterinarians as a pain relief).
[181] *Id.* at § 1308.11(c)(4,5) (Codeine is commonly prescribed by doctors for flu symptoms).
[182] 21 C.F.R. § 1308.12 (15,16) (Methadone is prescribed for pain relief, and, *quoting* The White House Drug Policy, "Methadone is a rigorously well-tested medication that is safe and efficacious for the treatment of narcotic withdrawal and dependence." http://www.whitehousedrugpolicy.gov/publications/factsht/methadone/index.html (accessed July 29, 2006).
[183] *See* Lazarou, J, Pomeranz, BH, Corey, PN, *Incidence of Adverse Drug Reactions in Hospitalized Patients: A Meta-Analysis of Prospective Studies*, Journal of the American Medical Association 279:1200-1205 (American Medical Association, Chicago, IL 1998) ("According to Canadian researchers, approximately 32,000 hospitalized patients, and possibly as many as 106,000 in the USA die each year because of adverse reactions to their prescribed medications."
[184] *Id.* at § 823(a)(1).

applicant must assure the Attorney General that the substance will not be diverted to uses other than for the applicant's stated use and purpose. Illegal prescription drug abuse is a tremendous problem in this country because so many people have access to the 'diverted' prescription drug.[185] Even though millions of Americans are accessing these 'diverted' prescription drugs, the Attorney General still approves applications to distribute the controlled substances for companies that make it easy to get prescription medication, and easier to 'divert' it to non-medical users.[186]

In comparison to the addictive and deadly pain medications that are allowed to be distributed, industrial hemp cannot cause addiction,[187] will not be 'diverted' to illicit uses because there is no drug to 'get high off' in industrial hemp,[188] and does not cause any overdose deaths.[189] Logically, since industrial hemp is safer than listed controlled substance prescription medications that are granted permits to be manufactured and distributed, industrial hemp farmers should apply for registration permits under the CSA. The Eighth Circuit, in *U.S. v. Plume*,[190] held that the Native American tribe cannot grow industrial hemp without the registration, stating "criminal sanctions could be avoided by a DEA registration,"[191] hinting what the tribe should

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[185] *See* National Institute On Drug Abuse, *Research Report Series: Prescription Drug Abuse and Addiction*, http://www.nida.nih.gov/ResearchReports/Prescription/Prescription.html (Accessed July 29, 2006) ("Also alarming is the fact that the 2004 National Institute on Drug Abuse's (NIDA's) Monitoring the Future survey of 8th, 10th, and 12th-graders found that 9.3 percent of 12th-graders reported using Vicodin without a prescription in the past year, and 5.0 percent reported using OxyContin-making these medications among the most commonly abused prescription drugs by adolescents"; "According to the 2003 National Survey on Drug Use and Health (NSDUH), an estimated 4.7 million Americans used prescription drugs nonmedically for the first time in 2002").

[186] *See* http://www.themedshop.com/morphine.asp?sid=1676341 (accessed July 29, 2006) (An online company that sells morphine).

[187] *See supra* pt. VI (a) (discussing the relevant factors to be considered when listing or removing a controlled substance).

[188] *See supra* pt. III (a) (discussing the chemical structure of industrial hemp does not allow any psychoactive effect).

[189] *See* Drug War Facts, *Annual Causes of Deaths in the United States*, http://www.drugwarfacts.org/causes.htm (accessed July 29, 2006) ("An exhaustive search of the literature finds no credible reports of deaths induced by marijuana. The US Drug Abuse Warning Network (DAWN) records instances of drug mentions in medical examiners' reports, and though marijuana is mentioned, it is usually in combination with alcohol or other drugs. Marijuana alone has not been shown to cause an overdose death."

[190] 447 F.3d 1067 (8th Cir. 2006).

[191] *Id.* at 1072.

attempt to do in order to farm industrial hemp. Furthermore, if the DEA fails to approve an applicant's registration for industrial hemp because of "detection and enforcement"[192] reasons, it is likely that the DEA will face arbitrary and capricious litigation under the APA[193] because the DEA readily approves opiate production and distribution, which has caused and has the potential to cause much graver consequences to the greater public health than industrial hemp which does not produce drug-like effects.

d. The DEA's CSA Hypocrisy And Inconsistent Regulatory Behavior

i. The DEA Permits Marinol, Marijuana Pills Made From Synthetic THC, That Induces Intoxication, But Will Not Permit Hemp Products That Contain Minimal THC That Is Not Readily Available For Intoxication

The DEA permits Solvay Pharmaceuticals[194] to manufacture and distribute the only FDA approved THC containing prescription drug, Marinol.[195] Marinol was approved for use by the DEA when it rescheduled Marinol to a Schedule II drug, and then eventually to a Schedule III drug.[196] Even though "Marinol contains synthetic THC,"[197] the DEA approved permit registrations that permits its usage for necessary medical patients.

However, the DEA took the position that hemp products cannot contain any THC, and are therefore illegal. In its Final Rule interpreting THC, the DEA stated, "it is DEA's view that

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[192] *Id*. at 1076 (the stated DEA reason why industrial hemp cannot be farmed; but the DEA has not declined a registration application under this reasoning).
[193] *See infra* pt. VI (d)(ii) (discussing the arbitrary and capricious actions of the DEA for inconsistent application of the CSA).
[194] www.marinol.com (accessed July 30, 2006); *See also* http://en.wikipedia.org/wiki/Marinol (accessed July 30, 2006) (Marinol is registered to Unimed Pharmaceuticals Inc.).
[195] 68 F.R 14114 (DEA Final Rule: *Clarification of Listing of 'Tetrahydrocannabinols' in Schedule I*, (Mar. 21, 2003) (Final Rule was struck down in *Hemp Industries Assn., v. D.E.A.*, 357 F3d 1012 (9th Cir. 2004)).
[196] *See* http://en.wikipedia.org/wiki/Marinol (Accessed July 30, 2006) ("On July 13, 1986, the Drug Enforcement Administration issued a Final Rule and Statement of Policy authorizing the "Rescheduling of Synthetic Dronabinol in Sesame Oil and Encapsulated in Soft Gelatin Capsules From Schedule I to Schedule II"(DEA 51 FR 17476-78). This permitted medical use of Marinol … In 1999, Marinol was rescheduled from Schedule II to III of the Controlled Substances Act, reflecting a finding that THC had a potential for abuse less than that of LSD, cocaine, and heroin").
[197] 68 F.R. 14114.

the CSA and DEA regulations have always declared any product that contains any amount of THC to be a schedule I controlled substance … this rule does not change the legal status of any hemp product."[198] However, the proposed DEA hemp rulemaking was invalidated.[199] Even though the DEA allows Marinol that contains THC, the DEA would not allow hemp products that might contain the slightest amount of THC, despite a person's logical inability to get intoxicated from smoking a hemp t-shirt.

However, further hypocrisy and inconsistency is evidenced because the DEA conceded that "one hemp food company claims that its products are THC-free … if this is correct, such products are not controlled substances and not prohibited by the CSA."[200] If the DEA is willing to allow THC-free hemp products, then THC-free hemp should not be grouped as a Schedule I controlled substance.

ii. The Poppy Metaphor - Opium Poppies Are Outlawed, But The Seeds Are Exempt, Yet The DEA Allows Cultivation of Numerous Poppy Varieties

The DEA, a federal administrative agency, is subject to the Administrative Procedures Act's[201] scope of review requirements.[202] Arbitrary and capricious review involves courts ensuring "that the choice made is not wholly dependent upon the personal will of the administrator… even the broadest discretion is subject to review to determine that there has been a bona fide exercise."[203] Furthermore, the arbitrary and capricious standard instructs the court to determine "whether the exercise of discretionary power was reasonable on the record presented

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[198] *Id.* at 14115.
[199] *See supra* Pt. VI (e)(ii) (discussing the *Hemp Industries Association* case that invalidated the DEA hemp rulemaking).
[200] *Id.* at 14118.
[201] 5 U.S.C. § 551 (2)(a) (2000) (defining 'agency').
[202] 5 U.S.C. § 706 (10)(e) ("the reviewing court shall hold unlawful and set aside agency action, findings, and conclusions found to be … arbitrary, capricious, an abuse of discretion").
[203] Bernard Schwartz, *Administrative Law* 653 (3d.ed. 1991) (citing to *Lennon v. U.S.,*387 F.Supp. 561, 564 (S.D.N.Y. 1975).

and the circumstances of the particular case."[204] One factor of discretionary review is whether the agency failed "to follow established precedents or practice."[205] The DEA's actions are inconsistent with respect to the CSA's control of hemp and the poppy.

The CSA controls the opium poppy as a Schedule II substance.[206] The term 'opium poppy' is defined as, "the plant of the species *Papavar somniferum L.,* except the seed thereof."[207] Similar to the marijuana definition with an exemption for other parts of the plant, opium poppy has an exemption within the definition for the seed from the poppy plant. Startling however is the fact that "opium is a narcotic analgesic drug which is obtained from the unripe seed pods of the opium poppy,"[208] yet, the DEA allows the opium poppy seeds to be exempted from the purview of the CSA. Even though the marijuana seeds do not produce the same intoxicating effect,[209] and even though the marijuana definition exempts the seeds and other parts of the marijuana plant that do not contain THC from the CSA's purview,[210] the DEA will not allow the hemp or marijuana plant to be grown at all. Yet, the DEA contradictorily allows the seeds of the opium poppy to be exempt from the CSA and still cultivated, even though the seeds are a direct precursor to controlled drugs.[211] The DEA's actions are inconsistent, and a reviewing court should find them to be an abuse of discretion when applied to the DEA's interpretation to outlaw the cultivation of industrial hemp. No deference will be given to the

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[204] *Id.* at 655 (citing *Carter v. S.B.A.*, 573 P.2d 564, 568 (Colo.App. 1977).
[205] *Id.* at 662.
[206] 21 C.F.R. § 1308.12 (b)(3).
[207] 21 U.S.C. § 802 (19).
[208] "Opium" http://en.wikipedia.org/wiki/Opium (accessed July 30, 2006).
[209] *See supra* pt. III (a) (Congress acknowledged that the flowering 'buds' of the plant contain the THC resin that causes intoxication effects and the other parts of the plant do not induce intoxication, which is why they exempted the other parts of the plant from the definition of marijuana).
[210] 21 U.S.C. § 802 (16).
[211] *See supra* pt. VI (b) (Industrial hemp is not a precursor to a controlled drug, yet is still illegal to cultivate).

DEA because the agency lacks any official interpretation for the regulation of hemp, nor will deference be accorded to the DEA for ad hoc rationalization.[212]

Furthermore, the DEA allows other strains of the opium poppy to be cultivated in the United States.[213] Even though the poppy is a listed controlled substance, the DEA does not cite 'detection and enforcement' as a reason to ban all poppy growth in its fight against opiates, as it does with industrial hemp. The DEA is acting arbitrarily and capriciously with the contradictory stance that opium poppy seeds are allowed under the CSA because of the exemption and that opium poppy varieties are allowed to be cultivated, but the DEA will not allow industrial hemp, a variety of marijuana, to be cultivated.

e. Recent Influential CSA Industrial Hemp Cases[214]

i. The Chevron Deferential Test Applied To Agency Interpretation Of Industrial Hemp

The precedent establishing *Chevron* deference should influence a court's review of industrial hemp cases that involve agency interpretation of a statute; however, recent court cases have not applied the *Chevron* deference test for agency interpretation for industrial hemp under the CSA, nor should the DEA be given *Chevron* deference because the agency lacks an official interpretation of the definition of hemp under the CSA because the rulemakings have been invalidated.[215]

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[212] *See supra* pt. VI (e)(ii)(1) (discussing the lack of deference accorded to the DEA for ad hoc rationalization).
[213] "Opium Poppy" http://en.wikipedia.org/wiki/Opium_poppy (accessed July 30, 2006) ("They are widely grown as ornamentals in various colors").
[214] *See supra* pt. III (b)(1) (Discussing *The New Hampshire Hemp Council v. Marshall* case. The *New Hampshire* case held that industrial hemp cannot be grown because the MTA taxing system no longer exists; yet, the court hypocritically will allow hemp products, although currently there is no MTA taxing system for the hemp products that were previously within the purview of the MTA taxing system).
[215] *See supra* pt. VI (e)(ii) (discussing the *Hemp Industries Association* case that invalidated the hemp rulemaking).

However, were the DEA to adopt a formal rulemaking for the hemp definition, the *Chevron* deference test involves two steps: first, is the statute unambiguous, and if so, the test stops because the statute is clear on its face; the second step, if the statute is unclear, is the agency interpretation of the regulation or statute reasonable, and if so, the agency receives highly deferential treatment and prevails.[216] Due to the favorable deferential treatment afforded to agencies, when litigating under a *Chevron* interpretation, "agencies want to show that a statute is ambiguous, persons challenging the agency interpretation want to show that it is not."[217]

Applying the *Chevron* test for industrial hemp regulation interpretation can result with a variety of different outcomes. Some courts might find that the statute is clear on its face because the definition of marijuana in the CSA specifically exempts the non-psychoactive hemp parts of the plant.[218] In *U.S. v. Walton*,[219] the court was aware that "the definition of marijuana was intended to include those parts of marijuana which contain THC and to exclude those parts which do not."[220] Under this theory, courts would adhere to Congress' specific intent to include in the statute an exception for industrial hemp. The *Walton* case came before *Chevron* deference, however, the *Walton* court did hold that Congress' intent was to regulate the psychoactive parts of the marijuana plant, evidencing that courts recognize that the definition and statute is clear on its face. The analysis would stop under *Chevron* step one.

In addition, when interpreting whether a statute is unambiguous, courts are likely to analyze legislative history to understand Congress' intent, and in the case of the marijuana definition in the CSA, no legislative history exists because Congress simply adopted the same

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[216] Funk, Shapiro and Weaver, *Administrative Procedures and Practice: Problems and Cases* 151 (West 2 ed. 2001).
[217] *Id.*
[218] *See supra* pt. VI (a) (discussing the specific exemption within the CSA for marijuana that exempts the non-psychoactive industrial hemp parts of the plant).
[219] 514 F.2d 201 (D.C.App. 1975).
[220] *Id.* at 203.

definition from the MTA without comment. This might lead to an analysis of the MTA's legislative history that would prove that Congress did intend to protect the industrial hemp industry.[221] However, the courts might limit the analysis to the CSA and not delve into the repealed MTA legislative history. In addition, a court is probably willing to entertain the notion that since Congress knew what it was doing when it enacted the statute with the specific definition and its exception, the lack of legislative history is not influential because the statute is clear on its face.

In contrast, courts have recognized that "the definition of marijuana in the statute to be 'complicated and confusing,'"[222] and even the description of 'complicated and confusing' "may seem a pardonable understatement."[223] The *Smith* and *Shurman* cases were both decided before *Chevron* deference, and although both cases were analyzing the MTA, a modern court might agree with the previous courts that the definition is confusing, and if so, the statute would then be ambiguous, and the next step would be to analyze the agency's interpretation of an industrial hemp regulation.

A DEA interpretation or reasoning as to why industrial hemp is not permitted under the statute will receive high deference from a court, so long as it is reasonable and permissible. Currently, the DEA interprets the marijuana definition in the CSA to include all industrial hemp products, although the rulemaking was invalidated.[224]

Regardless of whether a court is willing to consider this interpretation as reasonable, a court should first explore recently discovered nuances about 0% THC industrial hemp plants that cannot produce psychoactive affects, which distinguishes industrial hemp from marijuana and

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[221] *See supra* pt. IV (b)(i) (discussing the congressional hearings for the MTA).
[222] *Shurman v. U.S.,* 219 F.2d 282, 292 (5th Cir. 1955).
[223] *Smith v. U.S.,* 269 F.2d 217, 221 (D.C. App. 1959).
[224] *See infra* pt. VI (e)(ii) (discussing the *HIA* case that struck down the DEA interpretative rule regarding hemp products).

removes industrial hemp from the purview of the CSA because it is not a drug that induces intoxication.[225] In addition, courts should consider the biological aspects of industrial hemp growing and how the cross-pollination problem ruins marijuana that is cultivated within any nearby distance of an industrial hemp farm, which would counter the DEA's argument that farmers will hide and grow marijuana among the industrial hemp plants.[226] However, even with counterarguments against any DEA reasoning, a court can still provide the DEA with deferential treatment so long as the court feels the DEA's reasoning is permissible and reasonable. Considering that "agencies prevailed 42% of the time at step one and 89% of the time at step two,"[227] it is likely that the DEA will receive deference, but can possibly fight an uphill battle getting past review of the unambiguous statute in step one.

1. The DEA's Ad Hoc Rationalization To Outlaw Industrial Hemp Will Receive Little Or No Deference

The Supreme Court refuses to extend *Chevron* deference "when the agency itself has articulated no position on the question."[228] The Court explained that "deference to what appears to be nothing more than an agency's convenient litigating position would be entirely inappropriate."[229] An agency's litigating position may be entitled to deference if it reflects the agency's "fair and considered judgment on the matter in question" and is not a "post hoc rationalization."[230]

Currently, the DEA does not have a valid interpretation or formal rulemaking pertaining to the definition of marijuana and its application to industrial hemp. In any

[225] *See supra* pt. III (a) (discussing the chemical difference between industrial hemp and marijuana's THC contents and how industrial hemp cannot induce hallucinogenic affects).
[226] *See supra* pt. III (b) (discussing the
[227] Funk at 151.
[228] *Bowen v. Georgetown University Hospital,* 488 U.S. 204, 212 (1988).
[229] *Id.*
[230] *Id.*

litigation pertaining to industrial hemp (pre- or post- the invalidated rulemaking), the DEA advances various policy arguments, including that industrial hemp will contribute to the production of marijuana, hence, the social implications of industrial hemp are too drastic to allow its cultivation. However, the DEA should not and will not receive any deference for this argument because the agency's arguments are only advanced for litigation positions.

If the litigation position were to be entitled deference, the DEA must have a fair and considered judgment on the issue of industrial hemp and the litigating position must not be post hoc rationalization. The argument might not be considered to be post hoc rationalization because the DEA has consistently not approved industrial hemp permits and pursued a directive to outlaw hemp products, though unsuccessful.

However, a court cannot give the DEA deference for ad hoc rationalization litigating positions for the policy arguments to outlaw industrial hemp under the definition of marijuana because the agency has not give a fair and considered judgment on the issue. The DEA does not consider the cross-pollination issues that would restrain an industrial hemp farmer from sneaking marijuana among his fields; the earlier harvest time of industrial hemp prior to the 'flower' development; and the fact that industrial hemp cannot be utilized as a drug inducing compound, hence, industrial hemp should not even be within the control of the DEA, nor should the DEA be afforded deference to control industrial hemp.

ii. *The Hemp Industries Association Case Correctly Interprets The Marijuana Definition To Exempt Non-Psychoactive Hemp From The Control Of The CSA*

In *Hemp Industries Assn., v. D.E.A.*,[231] the Ninth Circuit overturned the DEA regulation that banned the sale or possession of hemp products that contained even trace amounts of non-psychoactive THC. The court initially clarified that the CSA separately controls marijuana[232] and THC;[233] natural-THC is found in marijuana plants, and that the listing for THC as a controlled substance is intended to cover synthetic-THC only. The court stated, "if naturally-occurring THC were covered under THC, there would be no need to have a separate category for marijuana, which obviously contains naturally-occurring THC. Yet Congress maintained marijuana as a separate category."[234] This differentiation is important because the court held that the parts of the plants excluded from the definition of marijuana are "non-psychoactive hemp,"[235] in turn, "the statutory language on point unambiguously precludes an interpretation of the THC definition that includes non-psychoactive hemp."[236]

The court further evidenced the important distinction between marijuana-THC and synthetic-THC, stating, "appellants' products do not contain the 'synthetic substances or derivatives' that are covered by the definition of THC, and non-psychoactive hemp is explicitly excluded from the definition of marijuana."[237] Furthermore, the court held,

> Such products do not contain a 'Schedule I controlled substance' as the CSA defines it … the non-psychoactive hemp in Appellants' products is derived from the 'mature stalks' or is 'oil and cake from the seeds' of the *Cannabis* plant, and therefore fits within the plainly stated exception to the CSA definition of marijuana.[238]

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[231] 357 F.3d 1012 (9th Cir. 2004) (hereinafter *HIA)* (The appellants are manufacturers, distributors or sellers of comestible items that contain hemp).
[232] 21 U.S.C. § 802(16).
[233] 21 C.F.R. § 1308.11(d)(30).
[234] *HIA* at 1014.
[235] *Id.*
[236] *Id.* at 1016.
[237] *Id.* at 1017.
[238] *Id.*

In addition, the court stated, "we find unambiguous Congress' intent with regard to the regulation of non-psychoactive hemp … Congress knew what it was doing, and its intent to exclude non-psychoactive hemp from regulation is entirely clear."[239] The court invalidated the DEA rule that "improperly renders naturally-occurring non-psychoactive hemp illegal for the first time"[240] because the DEA did not follow the requisite steps for controlling a substance.[241]

The *HIA* court's opinion recognizes Congress' intent that the parts of the plant excluded in the marijuana definition are the industrial hemp plants intended to be excluded from CSA regulation. The *HIA* court also recognized that the parts of the plant that are excluded are those which contain non-psychoactive ingredients, even stating that "the DEA makes no showing that extracts from parts of hemp seeds of stalks other than resin are used or could be used for psychoactive purposes."[242] The court determined that non-psychoactive hemp is not banned under Schedule I, [243] and the court's opinion insinuates that if non-psychoactive hemp plants are grown that do not contain THC resin, those plants are exactly what Congress intended to be excluded from CSA regulation and will not be banned either.

iii. *The U.S. v. Plume Court Recognizes That Industrial Hemp Can Be Grown Via The Registration Under The CSA, But, Incorrectly Reasons That Congress Did Not Intend To Allow Industrial Hemp*

In a recent case, *U.S. v. Plume*,[244] Alex White Plume of the Oglala Sioux tribe cultivated industrial hemp on federal trust land three times, and each time, the DEA destroyed the crops.[245]

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[239] *Id.* at 1018.
[240] *Id.* at 1017.
[241] *See supra* pt. VI (b) (discussing the consideration factors for controlling a substance and why the DEA cannot prove that THC-free hemp satisfies each factor).
[242] *Id.* at 1018.
[243] *Id.*
[244] 447 F.3d 1067 (8th Cir. 2006).

The court noted that each attempt at cultivation of industrial hemp was done "without a DEA registration."[246] The court held that the CSA regulates the farming of hemp because the definition of marijuana includes industrial hemp due to the THC presence and that registration with the DEA is required to grow hemp.[247] The court further held that there is no fundamental right to farm, nor a fundamental right to farm hemp, and that the CSA does not violate due process rights.[248]

Most importantly, the court recognized that the registration process is applicable for industrial hemp farming, and that Plume should have applied for the registration.[249] The court has hinted to Plume that if he follows the correct DEA registration procedures, he should be allowed to cultivate industrial hemp because the CSA's permit system for the manufacture of controlled substances does not completely outlaw industrial hemp.

However, the court makes a rather inconsistent remark regarding Congress' intent to exempt hemp from the definition of marijuana, which would then allow its cultivation. Even though the court recognized that it is "bound by the language of the CSA … if the language of a statute is unambiguous, the statute should be enforced as written unless there is clear legislative intent to the contrary,"[250] the court immediately follows with an inconsistent statement that "the CSA unambiguously bans the growing of marijuana, regardless of its use, and unlike the situation with the Tax Act, we find no evidence that Congress intended otherwise."[251] Apparently, the clear statutory exemption for the parts of the marijuana plant that are considered the hemp product parts is not clear enough for the court to recognize that Congress intended to

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[245] *Id.* at 1069-70.
[246] *Id.*
[247] *Id.* at 1073 (The court also held that the tribe's Ft. Laramie Agricultural Treaty rights do not grant a right to grow hemp. *Id.* at 1074).
[248] *Id.* at 1075-76.
[249] *Id.* at 1072 ("criminal sanctions could be avoided by a DEA registration").
[250] *Id.*
[251] *Id.*

exempt that part of the plant. If a farmer cannot grow the hemp parts of the plant, then there is no need for the exemption language at all. If Congress intended to not allow hemp to be grown, Congress would have clearly defined marijuana without the exemption. Otherwise, the exemption language is superfluous and unnecessary because there would be no use for Congress to have enacted the exemption language in the definition. The court is "reading the new statute contrary to its literal language."[252]

In addition, the court is not willing to read the statute literally, "absent a clear indication that Congress intended to protect plant production for industrial use as it existed under the prior tax statute."[253] However, contrary to the court's statement, the legislative testimony during the enactment of the MTA clearly indicates that Congress intended to protect industrial hemp production.[254] The court ignored Congress' intent to protect the industrial hemp commerce under the MTA, which if not ignored, would be the clear indication the court sought from Congress to provide evidence that the hemp commerce was intended to be protected. In addition, the court acted contrary to Congress' intent with the enactment of the CSA because the definition of marijuana still exempts the non-drug parts of the plant.

Additionally, the court explored the constitutional claim that the CSA violates due process rights. The court was not willing to recognize hemp farming as a fundamental right, hence, the rational basis test was utilized for reviewing the CSA.[255] For the rational basis test, the court need only find a reason "rationally related to a legitimate government purpose,"[256] and "the law need not be in every respect logically consistent with its aims to be constitutional. It is

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[252] *Id.* (The court supplied this statement to not allow the exemption language, however, the court itself is acting contrary to the statute's clear language that provides for the exemption).
[253] *Id.* (citing *New Hampshire Hemp Council v. Marshall*, 203 F.3d 1, 7 (1st Cir. 2000).
[254] *See supra* pt. III (b) (discussing the testimony from the various hearings for the enactment of the MTA that the Congressmen were clearly assured that the hemp production would continue as usual).
[255] *Plume* at 1075.
[256] *Id.*

enough that there is an evil at hand for correction, and that it might be thought that the particular legislative measure was a rational way to correct it."[257]

To determine a rational basis for the 'evils' of industrial hemp, the *Plume* court followed the *New Hampshire Hemp Council* rationale for regulating hemp under the CSA, stating "it may be that at some stage the plant destined for industrial products (hemp) is useless to supply enough THC for psychoactive effects. But problems of detection and enforcement easily justify a ban broader than the psychoactive variety of the plant."[258] While the court recognizes that the hemp products will not contain psychoactive ingredients, a view contrary to the DEA's opinion, the court is not willing to reject the DEA's argument that allowing industrial hemp farming would promote marijuana farming.

However, farmers harvest industrial hemp months before the 'flowering buds' are formed that contain the THC, making detection within a hemp field obvious if a plant is left standing that is allowed to continue to grow into the flower development stage.[259] Furthermore, to refute the argument that farmers may allow the plant to grow into the flowering stage, scientific evidence has proven that hemp cross-pollination of marijuana ruins the THC content found within the marijuana plant,[260] making it practically useless to plant marijuana among hemp fields. In addition, numerous investigations concluded that farmers do not sneak marijuana plants among their hemp fields because they do not want to jeopardize their livelihood.[261] With the current scientific evidence, reports, and actual knowledge of the hemp growing industry, the DEA's

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[257] *Williamson v. Lee Optical*, 348 U.S. 483, 488 (1955) (The *Lee Optical* Supreme Court decision set the tone for a favorable leniency towards legislature that required only a rational reasoning to deal with the 'evil' at hand).
[258] *Id.* at 1076 (citing *New Hampshire Hemp Council,* 203 F.3d at 6).
[259] *See supra* pt. III (b) (In order to maximize the fibrous content, hemp plants are harvested months before the THC resin would start to form).
[260] *Id.* (discussing the scientific evidence that proves marijuana potency is drastically reduced from the 0% THC industrial hemp plants if grown within the a nearby radius).
[261] *Id.* (*See* various European investigations that concluded no farmers were partaking in illegal marijuana farming. *See also* testimony from Mr. Anslinger that legitimate hemp farmers do not partake in the illegal marijuana trade).

'detection and enforcement' argument should no longer be considered rational and legitimate government reasoning. Furthermore, Prohibition ended the abuse of a major drug, alcohol, for only a short period of time, yet the government certainly was not going to outlaw wheat farming because of the problems with enforcement that might cause wheat to turn up in the hands of underground brewers.

iv. *A Kentucky State CSA Definition For Marijuana Did Not Include The Exemption Language For Hemp, Which Further Supports The Fact That The Exemption In The Definition Of Marijuana In The Federal CSA Is Crucial To Allowing Industrial Hemp*

In *Kentucky v. Harrelson,*[262] famed Hollywood star, Woody Harrelson planted four THC seeds and was immediately arrested and charged under the state CSA for cultivation of marijuana.[263] The Kentucky Supreme Court did not uphold Harrelson's claim that the hemp seeds were not within the state CSA's reach because the Kentucky General Assembly had recently amended the statute "so as to eliminate the (non-hallucinogenic hemp parts of the plant) language from the definition of marijuana."[264] The "legislative intent was to eliminate the previous exemptions"[265] that excluded from regulation the 'non-hallucinogenic' hemp parts of the marijuana plant, in order to "assist law enforcement authorities in the investigation and prosecution of illegal drugs at all levels."[266]

The *Harrelson* court continuously referred to the 'non-hallucinogenic' parts of the marijuana plant, however, the court was bound by the clear statutory language that no longer provided for an exemption from regulation for the non-hallucinogenic hemp parts. The

[262] 14 S.W.3d 541 (Ky. 2000)
[263] *Id.* at 544.
[264] *Id.* at 546.
[265] *Id.* at 547.
[266] *Id.*

importance of the eliminated exemption language was crucial to the holding in *Harrelson* because the defendant was no longer able to claim he fell within the purview of any exemption, hence, the revised definition bound the court to a holding that "all parts of the plant cannabis as a controlled substance."[267] The *Harrelson* case is clearly distinguishable from any federal CSA cases because the Kentucky CSA does not include the exemption.

In addition, the *Harrelson* court reiterated that "there would be serious difficulties for law enforcement in controlling marijuana trafficking if hemp were legalized,"[268] which the court recognized as a rational basis for General Assembly amending the state CSA. However, a rebuttal was offered in one of the concurring opinions to contest the premise that, because hemp and marijuana are similar, hemp should be criminalized. Justice Cooper wrote, "I disagree with the proposition that the mere fact that hemp resembles marijuana provides a rational basis for criminalizing the possession of hemp. If that were true, the legislature could criminalize the possession of sugar because it resembles powder cocaine."[269] The justice was not willing to accept the 'enforcement' rationale as a reasonable basis for criminalizing industrial hemp because similarities of products should not hinder the use of those products; which is why the cultivation of the various types of poppies are allowed without the 'enforcement' rationale stopping the entire flower industry, even though one particular type of poppy with similar characteristics is a precursor for a controlled substance. [270]

v. *A Pending Industrial Hemp Arbitration Claim Under NAFTA Is A Result Of The DEA's Interpretation That The CSA Has No Tolerance For Hemp*

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[267] *Id.*
[268] *Id.*
[269] *Id.* at 550 (Concurring opinion, Justice Cooper).
[270] *See supra* pt. VI (d)(ii) (discussing that the DEA allows the cultivation of poppies, even though one type of poppy yields the precursor for heroine).

The pending arbitration between a Canadian-based hemp producer, Kenex Ltd., and the United States revolves around the "Zero THC Policy" that led to "arbitrary and unreasonable seizers of products imported by Kenex."[271] Kenex manufactures and distributes "non-psychoactive and completely lawful industrial hemp products … throughout North America."[272] Kenex claims that the absolute ban on trade in hemp products breaches the NAFTA in some of the following ways:

1. Kenex will be accorded less favorable treatment than that which is accorded to their competitors from the United States or other countries operating in like circumstances … the effect of providing better treatment to competitors involved in the importation of industrial hemp food and oil products from countries other than Canada;
2. Competitors make and market products, such as those based on poppy seeds … have benefited from less restrictive regulatory standards than the hemp products;[273]

Kenex claims that these U.S. violations are contrary to NAFTA Articles 1102, 1103, 1104, & 1105.[274]

The purpose of the arbitration claim under NAFTA is to either compensate Kenex for the financial losses due to the U.S. policy to ban THC-free products, or, to clarify that Kenex will be able to import the industrial hemp products because they do not constitute the drug marijuana and be fairly treated under NAFTA.[275] Kenex argues that the U.S. "has arbitrarily chosen not to impose an absolute ban on poppy seed products, even though they contain trace amounts of opiates that would also constitute statutorily prohibited narcotics if produced with significantly

[271] *Kenex Ltd., v. U.S.,* Notice of Arbitration Under the Arbitration Rules of the United Nations Commission on International Trade Law and The North American Free Trade Agreement 2 (Aug. 2, 2002) (accessed via the U.S. Department of State website, http://www.state.gov/documents/organization/13204.pdf (verified accessibility July 30, 2006).
[272] *Id.*
[273] *Id.* at 2,3.
[274] *Id.* at 3.
[275] *Id.* at 4

higher concentrations."[276] Kenex continued, "there is no legitimate reason why the USA would ban products containing harmless trace amounts of THC but exempt poppy seed products from similar treatment."[277] Kenex concludes that as a result, the U.S. is acting arbitrarily against the hemp industry because of the DEA's interpretation that the CSA bans all commerce in hemp.

Kenex' argument that the hemp seed is treated unfairly, especially in light of the poppy seed industry's continuing commerce, supports the argument that the DEA is interpreting the marijuana definition incorrectly and is inconsistently regulating the CSA. The DEA interprets the CSA definition of opium poppy to exempt seeds, which allowed for the poppy seed industry to continue in the United States, yet, the CSA also exempts the hemp parts of the marijuana plant but the DEA will not allow the industry in the United States.[278] The pending arbitration claim will have the impact of either allowing industrial hemp manufacturers to continue to import into the U.S. fairly and equally, or, if Kenex loses its claim, it will signal a defeat to the international importation of industrial hemp into the United States. In any event, the DEA will be put on the spot to explain why the differential and inconsistent regulation of poppy and hemp is not arbitrary and capricious.

VII. The United States Agreed To Exclude Industrial Hemp Cultivation From Drug Control Regulation When It Signed The United Nations Single Convention On Narcotic Drugs Treaty of 1961

The Single Convention on Narcotic Drugs,[279] (hereinafter the Treaty) signed by one hundred eighty countries, is the international treaty against illicit drug manufacture and trafficking. "Previous treaties had only controlled opium, coca, and derivatives such as

[276] *Id.* at 2.
[277] *Id.*
[278] *See supra* pt. VI (d)(ii) (discussing the DEA's hypocritical treatment of the hemp in light of the DEA allowing poppy cultivation and commerce).
[279] United Nations Treaty, *Single Convention on Narcotic Drugs, 1961* (Entered into force Dec. 13, 1964).

morphine and heroin. The Single Convention, adopted in 1961, consolidated those treaties, broadening their scope to include cannabis."[280] The Treaty regulates cannabis, defined as "the flowering or fruiting tops of the cannabis plant (excluding the seeds and leaves when not accompanied by the tops) from which the resin has not been extracted, by whatever name they may be designated."[281] However, the Treaty specifically excludes from regulation industrial hemp production: "this Convention shall not apply to the cultivation of the cannabis plant exclusively for industrial purposes (fibre and seed) or horticultural purposes."[282]

The Treaty limits the definition of cannabis to the parts of the plant that will contain the THC resin that induces psychoactive effects, the flowering 'buds'. The Treaty specifically exempts seeds and leaves because those parts of the plant are not able to be utilized for hallucinogenic purposes. If the leaves are utilized for illicit purposes to extract resins, countries are required to take measures to control that illegal behavior. [283] However, Canada has a conflicting view on the required control of cannabis leaves. Canada does not believe that the Treaty requires countries to eradicate the use of leaves, unless the use is specifically for an illicit purpose for which the resin must be extracted.[284]

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[280] Single Convention on Narcotic Drugs, http://en.wikipedia.org/wiki/Single_convention_on_narcotic_drugs (access verified July 30, 2006).
[281] *Single Convention on Narcotic Drugs* at Article 1(b) (Definitions).
[282] *Single Convention on Narcotic Drugs* at Article 28 (2) (Control of Cannabis).
[283] *See Id.* at (3) (The Parties to the treaty must take appropriate action necessary to eradicate the leaves of the cannabis plant, if the leaves are used found to be able to be used for illicit purposes).
[284] Department of National Health and Welfare, Canadian Health Protection Branch, *The Single Convention and Its Implications For Canadian Cannabis Policy: A Discussion Paper* (Jan. 1979) (accessed via http://en.wikipedia.org/wiki/Single_convention_on_narcotic_drugs) (verified access on July 30, 2006) ("It is generally accepted that this definition permits the legalization of the leaves of the cannabis plant, provided that they are not accompanied by the flowering or fruiting tops. However, uncertainty arises by virtue of paragraph 3 of Article 28 which requires parties to the Convention to "adopt such measures as may be necessary to prevent the misuse of, and illicit traffic in, the leaves of the cannabis plant." In summary, it appears that parties are not obliged to prohibit the production, distribution and use of the leaves (since they are not drugs, as defined the Convention), although they must take necessary, although unspecified, measures to prevent their misuse and diversion to the illicit trade.").

Although the Treaty does not specifically exclude hemp stalks and fibers from the definition of cannabis, those parts of the plant are presumed to be excluded from the scope of the definition of cannabis because the definition particularly regulates only the flowering or fruiting tops of the cannabis plant. Furthermore, there is no need to presume that the stalks and fibers of the cannabis plant (the non-hallucinogenic parts) are excluded from the definition of cannabis because the Treaty itself recognizes and specifically exempts the industrial uses of the plant. Article 28(2) of the Treaty purposefully excluded the industrial purposes of the plant in order to protect the legitimate hemp commerce. The United States is a signatory to this Treaty condition, a supreme law of the land, that industrial hemp production will be excluded from drug control. By signing onto the Treaty, the United States agreed with the international viewpoint that cannabis grown for industrial purposes is not the same cannabis grown for hallucinogenic effects; hence, the international community realized that the industrial hemp commerce needs to be specifically excluded from drug control laws and treaties in order for countries to understand that the industrial hemp commerce is legitimate and shielded from drug control laws. The United States is violating the Single Convention on Narcotic Drugs because the United States will not permit the cultivation of legitimate industrial hemp in this country, nor will it respect the hemp commercial industry's importation of products into the United States.[285]

VIII. The Current Status Of Industrial Hemp Legislation In The United States

[285] *See supra* pt. IV (b)(ii) (*New Hampshire Hemp* Council, the U.S. does allow hemp to be imported; *In contrast, see also supra* pt. VI (e)(iv) (*Kenex NAFTA Arbitration*, the U.S. stopped a Canadian company from importing hemp products into the U.S.).

"U.S. retail sales of hemp products are estimated to now be $250 to $300 million per year."[286] Whether it is the thriving hemp products' industry, or the common sense that hemp's products can be utilized for a number of essential consumer products such as paper, biofuel, clothing and food, or whether it is the fact that an acre of hemp produces $225 while an acre of wheat produces $25, the legislators are catching on that this commodity crop is necessary for our farmers, our national security, our environment and our consumers. Currently, the federal government is considering industrial hemp legislation, and numerous states have enacted industrial hemp laws to allow the cultivation of industrial hemp as a commodity crop. It is important to recognize the fact that the hemp market will only continue to grow, especially if the cultivation and production will be allowed in this country, instead of importing the crop from overseas.

a. *Proposed Federal Legislation To Allow The Cultivation Of Industrial Hemp*

"Since the first time the federal government outlawed hemp farming, a federal bill has been introduced that would remove restrictions on the cultivation of non-psychoactive industrial hemp."[287] On June 22, 2005, Rep. Ron Paul (R-Tx) introduced the Industrial Hemp Farming Act,[288] which would amend CSA's definition of marijuana, as well as give exclusive control to the states to regulate industrial hemp.[289] Specifically, HR 3037 would amend definition of marijuana at 21 U.S.C. § 802(16) by inserting (16)(A) that reads,

> The term marijuana does not include industrial hemp. As used in the preceding sentence, the term 'industrial hemp' means the plant *Cannabis sativa*

[286] http://votehemp.com/PR/8-1-06_ca_editorial.html (an editorial to support the proposed California hemp legislation) (Access verified Aug. 13, 2006).
[287] http://www.votehemp.com/federal.html (Commenting on reaching a major milestone in hemp legislation) (access verified July 30, 2006).
[288] H.R. 3037 (109th Congress, 1st Session) (2005).
[289] *See* http://thomas.loc.gov/cgi-bin/query/z?c109:H.R.3037 (Text of legislation) (access verified July 30, 2006).

> L., and any part of such plant, whether growing or not, with a THC concentration that does not exceed 0.3 percent on a dry weight basis.[290]

Rep. Paul's bill would clear up the confusion in the CSA's exemption language by specifically defining and excluding industrial hemp from CSA regulation, as well as specifying the THC concentration at a level that is so "low content of THC that nobody can be psychologically affected by consuming hemp."[291] The bill sets a clear and acceptable non-hallucinogenic limit for industrial hemp, while establishing clear federal policy to allow the cultivation of industrial hemp.

In addition, H.R. 3037 amends the CSA by adding a new subsection, 21 U.S.C. § 811 (i)[292] that grants the States exclusive control over industrial hemp determinations. The bill provides "a State regulating the growing and processing of industrial hemp under State law shall have exclusive authority to determine whether any such plant meets the concentration limitation."[293] The bill allows States to enact laws that will allow the cultivation of industrial hemp. When a State enacts an industrial hemp law, the State retains the exclusive authority to regulate the hemp industry. If a State chooses to allow industrial hemp cultivation, it will be the State's responsibility to monitor and enforce the THC limitations, and the federal government will abstain from any involvement, even any criminal enforcement.

Since introduction, H.R. 3037 has been referred to the House Energy Committee, the House Judiciary Committee, and the Subcommittee on Health.[294] In addition, eleven

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[290] H.R. 3037 § 2, *Exclusion of Industrial Hemp From Definition of Marijuana*.
[291] Hon. Ron Paul (R-Tx) Extension of Remarks, *Introduction of the Industrial Hemp Farming Act: H.R. 3037* (June 22, 2005) (access via http://thomas.loc.gov/cgi-bin/bdquery/z?d109:h.r.03037 (verified July 30, 2006).
[292] H.R. 3037 § 3*, Industrial Hemp Determination to be Made By States*.
[293] *Id.*
[294] http://thomas.loc.gov/cgi-bin/bdquery/z?d109:HR03037:@@@X (detailing all congressional action on H.R. 3037) (access verified July 30, 2006).

representatives from eight different states have co-sponsored the bill.[295] At this time, the bill still awaits committee approval, then approval by Congress and the President.

b. *A Brief Overview Of The Current Status Of State Industrial Hemp Legislation*

To date, twenty-six states have introduced hemp legislation and fourteen have passed some form of hemp legislation; seven (Hawaii, Kentucky, Maine, Maryland, Montana, North Dakota and West Virginia) have removed barriers to hemp production or research. North Dakota is in the process of promulgating rules to license farmers to grow hemp under existing state law. North Carolina is currently considering bills, and Iowa is close to getting a bill on the legislative agenda.[296] California's legislature passed an industrial hemp bill, however, Governor Schwarzenegger vetoed the bill before it went into effect. With California's national and international agricultural influence,[297] the industrial hemp tables might have been turned, however, the veto stopped that momentum and the state will have to reconsider a different bill in the future or with a more hemp-friendly and farmer-friendly Governor.

i. *State's With Enacted Legislation*

Hawaii's legislation allows for private research and feasibility studies of industrial hemp.[298] Unfortunately, as Dr. David West reported, the DEA was a major roadblock for his

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[295] http://thomas.loc.gov/cgi-bin/bdquery/z?d109:HR03037:@@@P (The list of co-sponsors) (access verified July 30, 2006).
[296] http://www.votehemp.com/state.html (Detailing state hemp legislation) (access verified July 30, 2006).
[297] *See* Ann Veneman, Secretary of the California Department of Food and Agriculture, *Testimony Before The Subcommittee On Water And Power* (April 15, 1998) ("California is the agricultural powerhouse of the country. Our farm income leads the nation at nearly $25 billion a year. We produce over 350 crops and commodities and lead the nation in the production of 75 of those. More than half of the fresh fruits and vegetables in the United States are grown in California. One third of our production is exported to international markets")(accessed via http://gos.sbc.edu/w/veneman.html (verified Aug. 13, 2006)
[298] H.B. 57 (2002) (This bill extends research deadlines from the H.R. 110 (1999) bill that actually granted the University of Hawaii to conduct the industrial hemp research) http://www.votehemp.com/state/hawaii.html (access verified July 30, 2006).

research because the DEA permit registration process was delayed over and over.[299] West did report that he was able to produce a successful hemp crop for the Hawaii climate.[300]

Kentucky passed hemp legislation that authorizes state agencies to conduct feasibility research projects to determine the possible success of industrial hemp as a commodity crop in Kentucky.[301] The Kentucky program directs the Department of Agriculture conduct the studies, including promoting industrial hemp research and products.[302]

Maine's hemp legislation specifically excludes industrial hemp from the definition of marijuana.[303] In particular, LD 53 defines industrial hemp with a THC limit of 0.3% concentration, and requires that "it is grown under a federal permit in compliance with the conditions of that permit."[304] The Maine legislation also authorizes a state research center to conduct feasibility and durability studies.[305] Maine's legislation does permit hemp cultivation and farming within the state so long as a federal permit is acquired.

The Maryland legislation requires the Department of Agriculture to start a pilot program to study the growth and marketing potential of industrial hemp.[306] In addition, HB 1250 defines industrial hemp with a generous 1% THC concentration limit.[307] Interestingly, the Maryland legislation requires the researcher to acquire a permit from the State Department of

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[299] Dr. David West, Hawaii Industrial Hemp Research Project, Letter to Chief of Police and Governor of Hawaii at 3,4 (10/12/03) (accessed via http://www.votehemp.com/state/hawaii.html) (verified July 30, 2006)
[300] *Id.* at 4.
[301] H.B. 100 (2001) http://www.lrc.state.ky.us/recarch/01rs/HB100.htm (access verified July 30, 2006).
[302] *Id.*
[303] L.D. 53 § 1(17)(a) (2003) (The bill amends MRSA §1101 (1)'s definition of marijuana) http://www.mainelegislature.org/legis/bills_121st/billtexts/LD005301-1.asp (access verifies July 30, 2006)
[304] *Id.* at §2 (22).
[305] *Id.* at § 3.
[306] H.B. 1250 (2002) http://mlis.state.md.us/2000rs/billfile/HB1250.htm (access verified July 30, 2006).
[307] *Id.* at § 9-801(c) (definitions).

agriculture,[308] but does not require a federal permit, even though the DEA would still require federal registration.

In 2001, Montana passed hemp legislation that allows industrial hemp cultivation.[309] The Montana legislation requires the industrial hemp to be 0.3% THC concentration or less,[310] sets up a licensing program through the Department of Agriculture,[311] and actually provides for affirmative defenses for mistaken marijuana cultivation.[312]

In 1999, North Dakota authorized the cultivation of industrial hemp with a 0.75% THC content.[313] The legislation requires the hemp farmer to license with the Agriculture Department,[314] and also authorizes the Agriculture Department to conduct research studies regarding industrial hemp.[315] Recently, North Dakota just issued rules for licensing, and the Agriculture Commissioner, Roger Johnson said, "these rules will implement state legislation covering the cultivation of industrial hemp in North Dakota. It is an important step in the process of enabling farmers to grow and sell this valuable crop."[316] North Dakota will become the first state to issue licenses, however, the DEA permit process and requirements will still play a factor as to whether or not the DEA will approve the industrial hemp farms.

In 2002, the West Virginia legislature legalized industrial hemp cultivation.[317] The legislation defines industrial hemp with 1% THC content,[318] and interestingly, defines marijuana

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[308] *Id.* at § 9-803(b)(2).
[309] S.B. 261 (2001) http://www.votehemp.com/PDF/SB0261.02_2001.pdf (access verified July 30, 2006).
[310] *Id.* at § 1(1) (definition of industrial hemp); *see also Id.* at § 2 (industrial hemp cannot have greater than 0.3% THC content).
[311] *Id.* at § 3 (licensing).
[312] *Id.* at § 7 (exemptions for possession or cultivation of marijuana).
[313] H.B. 1428 § 1 (1999) (industrial hemp definition) http://www.votehemp.com/PDF/JBFM0700.pdf (access verified July 30, 2006).
[314] *Id.* at § 2(1) (Licensing requirements).
[315] *Id.* at § 2.
[316] http://www.votehemp.com/state/ND_action_alert.html (access verified Aug. 13, 2006).
[317] S.B. 447 (2002) (The Industrial Hemp Development Act) http://www.votehemp.com/PDF/SB447_2002.pdf (access verified July 30, 2006).
[318] *Id.* at § 3(2).

separately as a plant with THC greater than 1%.[319] The legislation authorizes industrial hemp as an agricultural crop,[320] requires a license from the Agricultural Commissioner,[321] and also provides for an affirmative defense for mistaken marijuana cultivation for legitimate hemp farmers.[322]

Each state that enacted industrial hemp legislation has chosen similarly low THC content percentages, all low enough that hallucinogenic effects are impossible. In addition, certain states have enacted affirmative defenses for legitimate hemp farmers that might mistakenly cultivate a hemp plant that has THC content over the required low limit. In addition, most of the states require that CSA permit registration be followed. However, if no farmer is growing industrial hemp in any of these states, it can be assumed that either no farmer is taking the risk of facing federal criminal charges or, the DEA is not approving industrial hemp registration permits.[323] But, it can be certain that the successful hemp market and the economic prosperity for farmers is driving the state legislators to begin the process of re-shaping this country's agricultural prowess.

ii. *States With Proposed Hemp Legislation*

[319] *Id.* at § 3(3).
[320] *Id.* at § 4.
[321] *Id.* at § 5.
[322] *Id.* at § 9.
[323] *See* CRS Report For Congress, *Hemp As An Agricultural Commodity* Summary ("The DEA has been unwilling ot grant licenses for growing small pots of hemp for research purposes (as authorized by some state laws)").

In 2006, the California General Assembly passed the California Industrial Hemp Farming Act.[324] The bill exempts from the definition of marijuana the industrial hemp plant, and requires that the industrial hemp be 1% THC content or lower,[325] and that the cultivator randomly test parts of the harvest for THC content.[326]

In June 2006, the bill won approval from both the Public Safety Committee and the Agricultural Committees in the State Senate.[327] The bill succeeded in the full California Senate vote, and was presented to the Governor for approval. However, on September 30th, 2006, on the last day before the bill would be automatically enacted, the Governor vetoed the bill, stopping the momentum of the industrial hemp initiative.[328] The veto was based on the irrational fear that the industrial hemp production would lead to marijuana cultivation.

The highly influential and powerful California agricultural community has recognized the economic necessity, viability and ability of a successful hemp industry, and the California hemp law, if passed, will probably have resulted in either the DEA revising a new interpretation of industrial hemp or its onerous permit registration requirements to make it easier for farmers to cultivate hemp under their state laws. Possibly, California's influence might also have led to a federal law revision for industrial hemp. Or, California's influential bill might have led to the DEA tightening its regulations to completely stop state's from believing their individual hemp laws will succeed. However, a more optimistic outlook would have been that California's bill will promote the widely accepted non-hallucinogenic industrial hemp plant's successful cultivation ability, and in turn, push the United States to excel in the industrial hemp market.

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[324] A.B. 1147 (2006) http://www.leginfo.ca.gov/cgi-bin/postquery?bill_number=ab_1147&sess=CUR&house=A&search_type=bill_update (access verified July 30, 2006).
[325] *Id.* at § 3(a) (defining industrial hemp).
[326] *Id.* at § 3(c).
[327] *See Headlines* at www.votehemp.org (access verified July 30, 2006).
[328] *Id.* (see detailed article about the veto at http://votehemp.com/PR/10-2-06_gov_veto.html) (access verified Jan. 4, 2007).

However, the veto stopped the eventual positive repercussions for the industry, farmers and the legal status of the plant.

In North Carolina, the legislature was introduced to S.B. 1572 which authorizes the state to study the beneficial uses of industrial hemp.[329] The bill moved to the Senate Committee on Rules and Operations in May, 2006.[330]

Numerous state legislatures have considered hemp cultivation statutes, but the proposals usually die in the various committees.[331]

IX. The International Industrial Hemp Scene

Currently, over "30 nations grow industrial hemp as an established agricultural commodity. About 14 of those sell part of their production on the world market."[332] The European Union and Canada use 0.3% THC as the maximum concentration for industrial hemp.[333] The European Union even provides a $400 per acre subsidy for hemp growing.[334]

The United States' nearest neighbor, Canada lifted its sixty-year ban on industrial hemp in 1998. Canada amended its Controlled Substances Act[335] with the Industrial Hemp Regulations[336] that legalized the cultivation of industrial hemp. The Regulations specifically defined industrial hemp to mean any part of the cannabis plant, even the flowering tops, so long as the THC content is 0.3% or less.[337] Canada established a licensing system through the Health

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[329] S.B. 1572 (2006) http://www.ncga.state.nc.us/gascripts/BillLookUp/BillLookUp.pl?Session=2005&BillID=S1572 (access verified July 30, 2006)
[330] http://www.votehemp.com/state/north_carolina.html (access verified July 30, 2006).
[331] *See* http://www.votehemp.com/state (a chart depicts the various state legislature proposals since 1995).
[332] Rawson, CRS Report, *Hemp as an Agricultural Commodity* at 1.
[333] *Id.*
[334] Roulac, *Hemp Horizons* at 84.
[335] S.C. 1996 § 55(1) (1996).
[336] P.C. 1998-352 (1998).
[337] *Id.* at § 1('industrial hemp').

Canada Agriculture department,[338] and licensed farmers are required to have samples periodically tested for THC content.[339] Since the Regulations went into effect, farmers have cultivated as much as 14,000 hectares in 1999,[340] and in 2006 have cultivated nearly 40,000 acres of industrial hemp to keep up with the demand.[341] Canada's successful hemp industry has spurred some of the northern U.S. states, such as North Dakota, to propose legalizing industrial hemp legislation.

China has been growing hemp for at least six thousand years, "and is by far the world's largest consumer and exporter of hemp seed, paper and textiles. The country's total annual hemp production exceeds one hundred thousand acres."[342] The majority of Western hemp textiles originate in China.[343] "With its vast natural resources, labor pool, and consumer markets, China will continue to have a major influence on the future of the global hemp industry."[344]

France has cultivated hemp since the 1400's.[345] In 1996, France "harvested more than ten thousand tons of industrial hemp."[346] Kimberly-Clark's French operations specially produce hemp papers for Bibles and cigarettes, and companies in France are producing hemp plaster for new home construction.[347]

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[338] *Id.* at § 5 (Licensing and Authorization).
[339] *Id.* at § 16(1)(b) (Cultivation).
[340] Health Canada, *Canada's Industrial Hemp Industry* at Production, http://www.agr.gc.ca/misb/spec/index_e.php?s1=hemp-chanvre& (access verified July 30, 2006) (1999's production was high because of enthusiastic farmers, but was curtailed because of overstock issues. However, "since 2001, the number of licensed hectares has been increasing, possibly due to the diminishing of the growers' overstocks and an increasing demand for hemp products").
[341] http://www.votehemp.com/state/ND_action_alert.html (access verified Aug. 13, 2006).
[342] Roulac, *Hemp Horizons* at 82.
[343] *Id.*
[344] *Id.*
[345] *Id.* at 83.
[346] *Id.*
[347] *Id.*

Germany legalized hemp farming in 1996, adopting the European Union regulations. In the first year, 3,500 acres of hemp were grown in Germany.[348] Germany estimates that economic competitiveness can handle "hemp farming on fifty thousand or more acres."[349]

The United Kingdom lifted the ban on growing industrial hemp in 1993.[350] Over 6,000 acres were grown in 1997, and now the government has been giving hundreds of thousands of dollars in grants to companies to further expand the hemp market.[351]

New Zealand is the most recent country to begin relaxing industrial hemp licenses. In July of 2006, the government implemented "a less onerous regulatory regime for the cultivation, processing and distribution of industrial hemp as an agricultural crop."[352] The new licensing system will cover only hemp, while other varieties of cannabis will continue to be regulated under the Misuse of Drugs Act of 1975.[353] Critically important to the New Zealand law, which will be essential for any industrial hemp laws in the United States to be successful, is the fact that there is a difference between marijuana and hemp because of the numerous varieties of cannabis.

Currently, the United States imports "tens of millions of dollars worth of raw hemp and related goods" from China, France, Germany and the United Kingdom.[354] The United Kingdom lifted its ban on hemp cultivation because the French had "an unfair market advantage" in England, causing the animal bedding producers to complain.[355] Now, it is time for producers in the United States to follow suit as the rest of the developed world continues to increase hemp production and exports, while the United States is forced to suffer from unfair advantage and higher importation prices. The United States is falling behind in the race to succeed in

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[348] Roulac at 84.
[349] *Id.*
[350] *Id.* at 88.
[351] *Id.* at 89.
[352] http://www.scoop.co.nz/stories/PO0607/S00162.htm (access verified Aug. 13, 2006).
[353] http://www.norml.org/index.cfm?Group_ID=6952 (access verified Aug. 13, 2006).
[354] Roulac at 89.
[355] *Id.* at 88.

agricultural commodities, and, as one of the major importers of hemp products, it is only logical for the United States to start cultivating its own hemp crops in order to supply cheaper raw hemp for producers.

X. Conclusion - The Future Of Industrial Hemp In The United States

Even though numerous states have legalized the cultivation of industrial hemp, farmers are dependent on the federal DEA to approve required registration permits. Unfortunately, farmers are not cultivating hemp because of the DEA's failure to approve registration permits. In order to overcome this major hurdle, federal legislation has been proposed. However, it may take years before the requisite Committees pass the legislation for a full Congressional vote. Instead, farmers should probably litigate under the Administrative Procedures Act, utilizing its prohibition on an agency action that is arbitrary, capricious and inconsistent behavior. Courts do have the power to invalidate such agency behavior. It is possible this legal challenge would succeed, but, an outcome may still take years, and, the result might not be that hemp is allowed, but instead, the DEA may choose to eliminate the poppy market. Furthermore, it is also essential for future litigants to pursue a favorable *Chevron* step one decision, and if a court does get to step two, then a thorough rebuttal of any DEA arguments will be essential to prove that the DEA interpretation is unreasonable. However, it will be essential to argue that any DEA position is only a litigation position that should be accorded no deference. The outcome of any court ruling is uncertain.

An additional option might include a farmer seeking an injunction from a court to stop an agency from destroying industrial hemp crop after a farmer has proven that the crop has a 0% THC content, such that, the CSA would not apply at all to the crop because the CSA only applies

to marijuana (that excepts the non-THC parts of the cannabis plant) and THC. However, hurdles might include an unfavorable court, or, the DEA violating the court order and still destroying the crop claiming that the enforcement rationale against marijuana still trumps, even though the THC-free hemp is not covered by the CSA.

Besides litigation, the most important piece of the puzzle is the legislation that guides the law. It is imperative to have clear guidelines from Congress, and in order for a court to follow Congress' intent, federal legislation, such as H.R. 3037, first needs to be passed, but, the legislation should also paint a clear picture for the industrial hemp industry. As it stands, H.R. 3037 does not prescribe clear guidelines for the hemp industry, and instead passes the ball to the states to control the hemp regulations. Even though this might be a successful way of getting legislation passed in the federal system, such that federal money is not spent regulating the hemp industry, legislation should at least spell out uniform guidelines for the states.

Guidelines should include a decisive THC content so that there will be uniform industrial hemp produced in the country. In addition, clear guidelines for sample testing, security, inspections, and farm size should be delineated in order to ensure that uniformity and consistency are applied throughout the nation. Furthermore, the guidelines might include stricter penalties for marijuana production, which would result in assurance that farmers would only grow hemp. Finally, even though the international global market is already proving that hemp products' markets are already competitive and growing, in order to ensure a competitive advantage for industrial hemp, the federal government should provide subsidies, possibly only during startup, to help with associated costs of cultivation, manufacture and processing.

The future of hemp cultivation may lie with the states. States are already proving that they need to take the initiative to influence the hemp industry in this country. With more state

legislation, and with the possibility of a different California bill influencing the scene in the future to overcome the veto hurdle, it is likely that the federal government will have to respond. The federal response may come in the form of an easier CSA permit registration system for hemp farmers, or, with federal legislation that recognizes the state's ability to control their agricultural communities. No matter the geographic location of the state, whether it is North Dakota, Kentucky, West Virginia, or California, hemp cultivation can be successful throughout this country.

In conclusion, the industrial hemp market appears to have the legal right to cultivate hemp plants in the United States. The hemp parts of the cannabis plant are exempted from drug control laws and an international drug control treaty. Beyond the exemption found in the definition of the drug control laws, the primary target of the drug laws is to eradicate the psychoactive THC ingredient, and now with modern cultivation, 0% THC hemp plants are possible, hence, that strain of hemp is not even within the purview of the CSA. In addition, the CSA has a permit registration for controlled substance manufacturing, which will allow the cultivation of industrial hemp, but, this will only be effective with a DEA that will actually approve applications. Since industrial hemp is not a drug and will not induce intoxication, which are the primary targets of drug control laws, farmers in this country should be doing the public a favor and start cultivating industrial hemp to drive down the costs of hemp products, and, since the Executive Branch deems it essential and necessary to have hemp resources, industrial hemp farmers should immediately begin cultivating hemp to ensure that the country is prepared and stocked for national emergencies.