

CONTROLLED SUBSTANCES CHAOS: THE DEPARTMENT OF JUSTICE'S NEW POLICY POSITION ON MARIJUANA AND WHAT IT MEANS FOR INDUSTRIAL HEMP FARMING IN NORTH DAKOTA

ABSTRACT

As federal drug policy evolves, a greater number of states and individuals are viewing cannabis in a more positive light than in generations past. In fact, at least two states have legalized recreational marijuana outright. This note, however, focuses on the benefits of hemp produced for industrial purposes. North Dakota was the first state to develop a comprehensive licensing structure for the production of industrial hemp. Unfortunately, hemp production has not developed into a statewide industry. The federal government does not differentiate between industrial hemp and marijuana, meaning both are considered illegal Schedule I controlled substances. Such a broad classification ignores scientific evidence tending to support a biochemical difference between the two. Indeed, North Dakota's federal district court and the Eighth Circuit Court of Appeals have ruled as much. As a result, fear of federal prosecution deters hemp production in North Dakota. The existing body of research indicating the derivative benefits of industrial hemp cultivation for government, business, and the consumer should no longer be ignored. This note will argue in light of these considerations, the federal government should either reconsider the classification of hemp as Schedule I or follow North Dakota's lead in licensing hemp growers.

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I. INTRODUCTION

On August 29, 2013, the Department of Justice (“DOJ”) issued a memorandum, the so-called “Cole Memo,” which provided federal prosecutors with guidance in regards to “state ballot initiatives that legalize under state law the possession of small amounts of marijuana and provide

for the regulation of marijuana production, processing, and sale.”¹ The memorandum was issued in the wake of marijuana legalization ballot initiatives in Colorado² and Washington³ in 2012.⁴ Recently, the DOJ released a clarification of the Cole Memo granting Indian tribes the option to legalize the cultivation and use of marijuana on Indian Reservations.⁵ Marijuana may be legalized for “medicinal, agricultural, or recreational use.”⁶

The Cole Memo delineated eight priorities on which the federal government would focus its resources, meaning so long as states avoid these prohibited “triggers,” federal authorities would not enforce existing drug laws.⁷ These eight “triggers” are:

- Preventing the distribution of marijuana to minors.⁸
- Preventing revenue from the sale of marijuana from going to criminal enterprises, gangs, and cartels.⁹
- Preventing the diversion of marijuana from states where it is legal in some form to other states.¹⁰
- Preventing state-authorized marijuana activity from being used as a cover or pretext for the trafficking of other illegal drugs or other illegal activity.¹¹
- Preventing violence and the use of firearms in the cultivation and distribution of marijuana.¹²

1. Memorandum from Deputy Attorney Gen. James M. Cole on Guidance Regarding Marijuana Enforcement for U.S. Attorneys (Aug. 29, 2013), *available at* <http://www.justice.gov/iso/opa/resources/3052013829132756857467.pdf> (hereinafter “Cole Memo”).

2. COLO. CONST. art. 18, § 16.

3. Dan Merica, *Oregon, Alaska and Washington, D.C. Legalize Marijuana*, CNN (Nov. 5, 2014), <http://www.cnn.com/2014/11/04/politics/marijuana-2014/>.

4. *See* Michael Martinez, *10 things to know about nation’s first recreational marijuana shops in Colorado*, CNN (Jan. 1, 2014), <http://www.cnn.com/2013/12/28/us/10-things-colorado-recreational-marijuana/>; Mayra Cuevas, *Washington’s pot shops now ready to open, where risk is now financial*, CNN (Sept. 11, 2014), http://www.cnn.com/2014/07/07/us/washington-marijuana-licenses/index.html?iid=article_sidebar.

5. Memorandum from Director Monty Wilkinson on Policy Statement Regarding Marijuana Issues in Indian Country for all U.S. Attorneys (Oct. 28, 2014), *available at* <http://www.justice.gov/sites/default/files/tribal/pages/attachments/2014/12/11/policystatementregardingmarijuanaissuesinindiancountry2.pdf> (hereinafter “Wilkinson Memo”).

6. *Id.* at 2; *see also* Cole Memo, *supra* note 1, at 2.

7. Cole Memo, *supra* note 1, at 1.

8. *Id.*

9. *Id.*

10. *Id.* This provision of the Cole Memo will be referred to as the “anti-diversion mechanism.”

11. *Id.*

12. *Id.* at 2.

- Preventing drugged driving and the exacerbation of other adverse public health consequences associated with marijuana use.¹³
- Preventing the growing of marijuana on public lands and the attendant public safety and environmental dangers posed by marijuana production on public lands.¹⁴
- Preventing marijuana possession or use on federal property.¹⁵

This note will first argue the Cole and Wilkinson Memos do not, in fact, clarify existing policy with regards to marijuana cultivation, possession, and sales. The North Dakota Federal District Court and the Eighth Circuit Court of Appeals harmoniously ruled *any* substance containing *any amount* of tetrahydrocannabinols (“THC”) is a Schedule I controlled substance and therefore illegal under federal law.¹⁶ However the Ninth Circuit Court of Appeals reached the opposite conclusion, finding the parts of the marijuana plant normally used for industrial purposes were exempted from the Controlled Substances Act’s (“CSA”) definition of marijuana.¹⁷ The issue of whether Indian tribes and North Dakota farmers could cultivate and market industrial hemp products due to the CSA’s prohibition on the dispensation or distribution of Schedule I controlled substances,¹⁸ in light of the DOJ’s new policy stance, necessitates a renewed conversation.¹⁹

Second, this note will highlight the stark difference between recreational marijuana and industrial hemp, which is based upon their respective biochemical compositions, i.e., the concentration of THC. Although hemp and marijuana are derivatives of the same plant species, *Cannabis sativa*, they are two completely different strains.²⁰ Thus, the CSA’s blanket classification is vastly oversimplified and carries with it potential criminal consequences. Moreover, the inability to transport

13. *Id.*

14. *Id.*

15. *Id.*

16. *United States v. White Plume*, 447 F.3d 1067, 1072 (8th Cir. 2006) (“The language of the CSA unambiguously bans the growing of marijuana, regardless of its use, and . . . we find no evidence that Congress intended otherwise”); *Monson v. Drug Enforcement Admin.*, 522 F. Supp. 2d 1188, 1198 (D.N.D. 2007), *aff’d*, 589 F.3d 952 (8th Cir. 2009).

17. *Hemp Indus. Ass’n v. Drug Enforcement Admin.*, 357 F.3d 1012, 1017 (9th Cir. 2004).

18. 21 U.S.C. § 841(a) (2014).

19. North Dakota legalized industrial hemp in 1999. *See* 1999 ND LAWS ch. 65, § 11. The requirement that a North Dakota hemp farmer obtain DEA approval for growing industrial hemp was litigated in *Monson v. Drug Enforcement Administration*. *See* discussion *supra* note 16.

20. Thomas J. Ballanco, *Recent Developments: The Colorado Hemp Production Act of 1995: Farms and Forests without Marijuana*, 66 U. COLO. L. REV. 1165, 1166 (1995).

hemp-based products presents a large obstacle to tribes and North Dakota farmers inclined to enter the industrial hemp market.²¹

Third, tax implications present a glaring obstacle for hemp production going forward. The Internal Revenue Code currently prohibits tax deductions or credits of any kind derived from trafficking in controlled substances, as defined by the CSA.²² Despite the ratification of the 2014 Agricultural Act²³ and its industrial hemp provisions, North Dakota hemp farmers will incur significant tax liability under Internal Revenue Code section 280E unless a distinction is made between industrial hemp and recreational marijuana. Until these issues are resolved by either an act of Congress or pursuant to the Drug Enforcement Agency's ("DEA") rulemaking authority, North Dakotans remain deterred from entering a lucrative market.²⁴

II. HEMP REGISTRATION: WHAT THE LAW CURRENTLY SAYS, WHAT THE UNITED STATES ATTORNEY GENERAL CAN DO ABOUT IT, AND WHY NORTH DAKOTA'S HEMP REGULATION STATUTES LEAD AT THE STATE LEVEL

The regulatory framework for obtaining a permit to grow industrial hemp from the DEA remains intact, despite the DOJ's recent policy updates. A hemp farmer must obtain DEA permission or face the possibility of federal charges and/or property confiscation regardless of state-issued permits.²⁵ This is due to the CSA's blanket classification of all forms of cannabis as Schedule I.²⁶ The DEA has not recently issued any new hemp growers' licenses.²⁷ When permits are issued, they are generally restricted to research endeavors only.²⁸

21. Tribal governments had previously asked whether their bans on marijuana would still be upheld in spite of state laws that legalize marijuana's recreational use. In fact, at least two tribes in California have gone to great lengths to keep marijuana off of their reservations. See Aaron Gregg, *Native American reservations now free to legalize marijuana*, WASH. POST (Dec. 12, 2014), <http://www.washingtonpost.com/news/morning-mix/wp/2014/12/12/native-american-reservations-now-free-to-legalize-marijuana/>. In light of these considerations, this note will focus on the aspects of hemp cultivated for industrial purposes only as far as Indian tribes are concerned.

22. 26 U.S.C. § 280E (2014).

23. The Agricultural Act of 2014, Pub. L. No. 113-79, 128 Stat. 649.

24. The industrial hemp market nets an estimated \$581 million annually. RENÉE JOHNSON, CONG. RESEARCH SERV., RL32725, HEMP AS AN AGRICULTURAL COMMODITY 6 (2013).

25. *Id.* at 13.

26. 21 U.S.C. §§ 812(c)(10), (17) (2014).

27. Johnson, *supra* note 24, at 14. Hawaii was the last to receive a DEA permit, which lasted from 1999 through 2003. The permit has since expired. *Id.*

28. Vanessa Rogers, *The Future of Hemp in Kentucky*, 4 KY. J. EQUINE, AGRIC. & NAT'L RES. L. 479, 486 (2012).

A. HEMP REGISTRATION

Federal courts in North Dakota adopted the position that a DEA license is required to cultivate industrial hemp, state law notwithstanding.²⁹ Currently, any person who wishes to manufacture or distribute a controlled substance is required to obtain a license for such activities from the DEA.³⁰ Additionally, separate registrations are required for each principal place of business.³¹

North Dakota adopted an efficient, streamlined process for those inclined to cultivate industrial hemp in 2007.³² Despite various federal court rulings, North Dakota's hemp licensing system remains intact.³³ Under North Dakota law, a person is required to apply for a license with the state agriculture commissioner.³⁴ Applicants must disclose their name, address, and the legal description of the property on which the hemp will grow.³⁵

Applicants must submit to a nationwide criminal background check and pay the requisite fees for such inquiry.³⁶ Any finding of a criminal history precludes an applicant from obtaining a license.³⁷ North Dakota's statewide regulatory scheme also contemplates funding for enforcement. Applicants are assessed a fee of \$5.00 per acre, with a minimum fee of \$150.00 per applicant.³⁸ Most importantly, North Dakota's regulatory scheme *does not* require DEA licensure.³⁹

1. *Federal Hemp Registration and North Dakota's State Licensing Scheme: A Comparison*

Under 21 United States Code section 823, the United States Attorney General ("Attorney General") "shall register an applicant to manufacture controlled substances in schedule I or II if he determines that such registration is consistent with the public interest"⁴⁰ The statute

29. *Compare* *Monson v. Drug Enforcement Admin.*, 522 F. Supp. 2d 1188, 1200 (D.N.D. 2007), with N.D. CENT. CODE § 4-41-02(1) (2013) (license from the DEA *not* required).

30. 21 C.F.R. § 1309.21(a) (2012).

31. 21 C.F.R. § 1309.22(a) (2012).

32. 2007 ND LAWS ch. 20, § 7.

33. *See* N.D. CENT. CODE § 4-41-02 (2013).

34. *Id.*

35. *Id.*

36. *Id.*

37. *Id.*

38. *Id.*

39. *Id.*; *but see* *Monson v. Drug Enforcement Admin.*, 522 F. Supp. 2d 1188, 1200 (D.N.D. 2007) (holding that North Dakota's regulation of hemp in a manner contrary to federal law did not change hemp's status as a Schedule I controlled substance).

40. 21 U.S.C. § 823(a) (2014).

delineates six factors the Attorney General must consider when making such a determination.⁴¹ Christine Kolosov has already provided a thorough analysis of the six factors under section 823(a) in the context of North Dakota's industrial hemp regulatory scheme.⁴² A brief synopsis of three specific factors analyzed by Kolosov is necessary in order to demonstrate (1) North Dakota's regulatory scheme is more than adequate to regulate the growth consistently with section 823(a), and (2) such a regulatory scheme is in accord with the DOJ's updated policy stance on marijuana.⁴³

First, Kolosov examines the prevention of diversion under section 823(a).⁴⁴ Specifically, section 823(a)(1) requires that the Attorney General consider whether an applicant maintains "effective controls" against diversion.⁴⁵ North Dakota requires potential hemp farmers to provide GPS mapping delineating where the hemp would be grown, certify such hemp would have the requisite low THC content, and make their fields accessible to state inspectors for monitoring and testing.⁴⁶ Interestingly, Kolosov notes industrial hemp and marijuana are harvested five to six weeks apart.⁴⁷ Moreover, she further notes cross-pollination between hemp and marijuana *reduces* the potency of marijuana.⁴⁸

Second, Kolosov examines prior criminal history under section 823(a)(4).⁴⁹ Preventing diversion is inextricably linked to section 823(a)(4), which requires the Attorney General to consider an applicant's prior conviction under state or federal law *as it relates to* controlled substances violations.⁵⁰ In contrast, North Dakota's statute unequivocally

41. 21 U.S.C. § 823(a)(1) to (6) (2014).

42. See Christine A. Kolosov, Comment, *Evaluating the Public Interest: Regulation of Industrial Hemp Under the Controlled Substances Act*, 57 UCLA L. REV. 237, 249-59 (2009).

43. See Cole Memo, *supra* note 1, at 2; see also Wilkinson Memo, *supra* note 5, at 2.

44. 21 U.S.C. § 823(a)(1) (2014); Kolosov, *supra* note 42, at 249-50; see also Cole Memo, *supra* note 1, at 2.

45. 21 U.S.C. § 823(a)(1) (2014). The Cole Memo is consistent with this statutory provision via the anti-diversion mechanism. See Cole Memo, *supra* note 1, at 2.

46. Kolosov, *supra* note 42, at 250. Moreover, Kolosov observes that other countries that have enacted hemp-permit systems like North Dakota do not experience diversion issues. *Id.* at 256. According to one expert, this is likely due to the fact that under such systems, inspectors are permitted to enter fields without notice to test hemp plants for THC levels. *Id.*; see also N.D. CENT. CODE § 4-41-02(3) (2013).

47. Kolosov, *supra* note 42, at 250. Hemp is typically planted between late March and early May. *Hemp Defined*, N. AM. INDUS. HEMP COUNCIL, INC., <http://www.naihc.org/hemp-information/289-hemp-defined>.

48. *Hemp Defined*, *supra* note 47; see also Nicole M. Keller, Note, *The Legalization of Industrial Hemp and What it Could Mean for Indiana's Biofuel Industry*, 23 IND. INT'L & COMP. L. REV. 555, 557 (2013) (explaining that industrial hemp's high cannabidiol concentration in fact *blocks* the psychoactive effects of THC).

49. Kolosov, *supra* note 42, at 255.

50. 21 U.S.C. § 823(a)(4) (2014).

states “[a]ny person with a prior criminal conviction is not eligible for licensure.”⁵¹

North Dakota’s regulatory scheme is unquestionably more stringent in this regard. Preclusion of *any* person with a criminal history from the industrial hemp market adequately screens out undesirable applicants within the letter and spirit of section 823(a)(4). As applied to the Cole Memo’s guidance, this type of state regulation and oversight would severely deter and even prevent attempts at illegal drug trafficking altogether.⁵²

Third, section 823(a) requires the Attorney General to determine compliance with state law.⁵³ North Dakota’s regulatory setup⁵⁴ speaks for itself in this regard. North Dakota legalized industrial hemp in 1999.⁵⁵ In fact, North Dakota’s requirements for industrial hemp licensure are more stringent than the DEA’s.⁵⁶ Therefore, the cultivation of industrial hemp not only complies with North Dakota state law, but the safeguards enacted by North Dakota for the cultivation of industrial hemp are more exacting than those of the DEA.

The significant difference in registration fees bears further highlighting. The DEA charges a registration fee of approximately \$3,000 for a one-year industrial hemp license.⁵⁷ In comparison, North Dakota charges an industrial hemp applicant \$5.00 per acre, with a minimum fee of \$150.⁵⁸ Thus, in order to match the DEA’s registration fee, a North Dakota hemp farmer would need to farm approximately 580 acres of hemp.⁵⁹ Therefore, North Dakota’s regulatory scheme is fully within the parameters of state law, is less expensive than the federal scheme, and provides funding for oversight of the program.⁶⁰

In light of these three factors highlighted by Kolosov, one is left wondering why DEA oversight of industrial hemp production in North

51. N.D. CENT. CODE § 4-41-02(1) (2013).

52. See Cole Memo, *supra* note 1, at 2; see also discussion *supra* note 46 (discussing anti-diversion under hemp permit systems, such as North Dakota’s).

53. 21 U.S.C. § 823(a)(2) (2014); see also Kolosov, *supra* note 42, at 252-53.

54. See discussion *supra* notes 34-39; see also Kolosov, *supra* note 42, at 252-53 (“[I]t is North Dakota’s express intention to eliminate barriers to hemp production for industrial purposes.”).

55. N.D. CENT. CODE § 4-41-01 (2013).

56. Compare N.D. CENT. CODE § 4-41-02 (2013), with 21 C.F.R. § 1309.11(a) (2009).

57. 21 C.F.R. § 1301.13(e)(1)(i) (2009).

58. See N.D. CENT. CODE § 4-41-02(3) (2013).

59. *Id.* The acreage figure was arrived at by subtracting North Dakota’s \$150 minimum fee from the DEA’s fee of \$3,047. This results in \$2,897, which, when divided by North Dakota’s acreage fee of \$5 per acre, equals 579.4 acres.

60. *Id.* (explicitly providing for program funding via the statutory fee schedule).

Dakota is necessary. Indeed, North Dakota's system of safeguards more than satisfies the Cole Memo's anti-diversion mechanism and comports with the purpose of section 823(a). No conceivable deficiency exists within North Dakota's regulatory scheme. Unfortunately, a reluctant DEA stands in the way of a lucrative state industry.⁶¹ The Attorney General is empowered to add or remove substances from the lists of controlled substances should he or she find evidence warranting such removal. In fact, the biochemical composition of industrial hemp, as opposed to marijuana, serves as strong evidence the Attorney General *should* remove hemp containing less than a 0.3% THC concentration from Schedule I.⁶²

2. *Implications of the DOJ's Current Policy Stance for North Dakota Indian Tribes*

The memo regarding the DOJ's policy stance on marijuana cultivation in Indian Country stated "[t]he eight priorities in the Cole Memorandum will guide United States Attorneys' marijuana enforcement efforts in Indian Country, including in the event that sovereign Indian Nations seek to legalize the cultivation or use of marijuana in Indian Country."⁶³ The third enforcement trigger, which states an enforcement priority is "[p]reventing the diversion of marijuana from states where it is legal under state law in some form to other states," muddies the waters in states such as North Dakota.⁶⁴ In North Dakota, medical and recreational marijuana has not yet been legalized,⁶⁵ industrial hemp *is* legal,⁶⁶ and federal law still criminalizes the cultivation of marijuana.⁶⁷

Recently, the United States District Court for the District of North Dakota ruled that the CSA unequivocally designates any material with any quantity of THC as a Schedule I controlled substance.⁶⁸ Furthermore, it is illegal under federal law to distribute a controlled substance.⁶⁹ This position was reinforced by the DEA in 2001 when it issued a rule interpretation that categorically applied the CSA's blanket prohibition on

61. See discussion *supra* note 16; Johnson, *supra* note 24, at 13 ("Most reports indicate that the DEA has not granted any current licenses to grow hemp, even for research purposes.")

62. See discussion *infra* Part II.B; see also The Agricultural Act of 2014, Pub. L. No. 113-79, § 7606, 128 Stat. 649, 913 (providing for the cultivation of hemp for research purposes as long as the THC concentration is less than 0.3%).

63. Wilkinson Memo, *supra* note 5, at 2.

64. *Id.* (the anti-diversion mechanism).

65. See N.D. CENT. CODE §§ 19-03.1-05(5)(h), (n) (2013).

66. See generally N.D. CENT. CODE ch. 4-41 (2013).

67. See generally 21 U.S.C. § 841(a) (2014).

68. *Monson v. Drug Enforcement Admin.*, 522 F. Supp. 2d 1188, 1198 (D.N.D. 2007).

69. 21 U.S.C. § 841(a) (2014).

any substance containing THC.⁷⁰ Under the strict textualist approach to the CSA taken by North Dakota, the DEA's present interpretation of Schedule I,⁷¹ and the anti-diversion provision of the DOJ memo,⁷² it is unlikely that North Dakota Indian tribes would be permitted to transport hemp products off of the reservation.⁷³

The Eight Circuit Court of Appeals' ruling in *United States v. White Plume*⁷⁴ is illustrative of the issue. In 2000, Alex White Plume, a member of the Oglala Sioux Tribe on the Pine Ridge Indian Reservation,⁷⁵ cultivated hemp on tribal lands.⁷⁶ White Plume's intention was to raise hemp as a cash crop to supplement his family's income.⁷⁷

Regardless of his stated intentions, the court deemed White Plume's actions illegal because he had not obtained a DEA Certificate of Registration.⁷⁸ Consequently, the government obtained a search warrant and destroyed the crop.⁷⁹ In 2002, White Plume once again began cultivating hemp without a DEA Certificate of Registration.⁸⁰ The government asked the United States District Court for the District of South Dakota to permanently enjoin White Plume from manufacturing or distributing hemp due to his violation of the CSA.⁸¹ The district court granted the government's request.⁸²

On appeal, White Plume first attempted to argue "industrial hemp and marijuana are really different species of Cannabis, and the drug 'marijuana' that Congress sought to regulate in the CSA is Cannabis indicus."⁸³ The Eighth Circuit, however, disagreed and ruled "Congress clearly defined 'marijuana' as Cannabis sativa L. in the CSA . . . believing it to be the term

70. Interpretation of Listing of "Tetrahydrocannabinols" in Schedule I, 66 Fed. Reg. 51530-01 (Oct. 9, 2001).

71. *See id.*

72. Wilkinson Memo, *supra* note 5, at 2.

73. *See* Andrew Sheeler, *Tribal marijuana could not legally be transported*, BISMARCK TRIB. (Dec. 12, 2014), http://bismarcktribune.com/news/local/govt-and-politics/tribal-marijuana-could-not-be-legally-transported/article_94cd90ac-8234-11e4-9264-2ffcef2d1afe.html (opining that Indian tribes would likely not be allowed to transport marijuana to jurisdictions in which it remains illegal).

74. 447 F.3d 1067 (8th Cir. 2006).

75. The Pine Ridge Indian Reservation is located in the southwest corner of South Dakota.

76. *Id.* at 1069.

77. Jon Bonné, *Sioux fights Feds, this time over hemp*, TODAY NEWS (Sept. 7, 2001), http://www.today.com/id/3073419/ns/today-today_news/t/sioux-fight-feds-time-over-hemp/.

78. *White Plume*, 447 F.3d at 1069-70.

79. *Id.* at 1070.

80. *Id.*

81. *Id.*

82. *Id.*

83. *Id.* at 1071.

that scientists used to embrace all marijuana producing Cannabis; [and] the other named sorts were not seen as separate Cannabis species.”⁸⁴

This issue came before the Eighth Circuit once again on appeal in *Monson v. DEA*.⁸⁵ Monson attempted to argue Congress could not regulate a purely intrastate activity—i.e., the cultivation of industrial hemp—under the Commerce Clause.⁸⁶ The Eighth Circuit disagreed and explained in light of *Gonzales v. Raich*,⁸⁷ Monson’s argument fell *more* within the scope of Congress’s Commerce Clause power than was the situation in *Raich*.⁸⁸ The court explained the respondents in *Raich* were attempting to grow marijuana plants for personal medical use, whereas Monson sought to grow it on a large scale for commercial use with the intent of selling hemp-based products in interstate commerce.⁸⁹ Therefore, under the Eighth Circuit’s present interpretation of the CSA and Congress’s authority to regulate industrial hemp under the Commerce Clause, it remains unlikely that Indian tribes in North Dakota would be permitted to cultivate and subsequently transport hemp products off of reservations.

B. THE DEA’S RULEMAKING AUTHORITY TO CHANGE THE CLASSIFICATION

The DEA, as a federal agency, has rulemaking power with which it could rectify the present situation. President Nixon created the DEA through executive order⁹⁰ in July 1973.⁹¹ The DEA was created to establish a unified command at the forefront of the federal government’s drug control efforts.⁹² The DEA Administrator is the official in charge of the agency’s operations, both foreign and domestic.⁹³ Ultimately, the agency is an arm of the United States Department of Justice.⁹⁴ As such, the United States

84. *Id.* (citations omitted).

85. 589 F.3d 952 (8th Cir. 2009).

86. *Id.* at 962.

87. 545 U.S. 1 (2005).

88. *Monson*, 589 F.3d at 963.

89. *Id.* at 963-64 (footnote omitted).

90. *DEA History*, U.S. DRUG ENFORCEMENT ADMIN., <http://www.dea.gov/about/history.shtml>.

91. *Id.*

92. *Drug Enforcement Administration 1970-1975*, U.S. DRUG ENFORCEMENT ADMIN., <http://www.dea.gov/about/history/1970-1975.pdf>.

93. *DEA Leadership*, U.S. DRUG ENFORCEMENT ADMIN., <http://www.dea.gov/about/leadership.shtml>. Interestingly, the current Administrator is a native of Minnesota and a graduate of Bemidji State University, located in Bemidji, Minnesota. *See Bemidji State University - Outstanding Alumni 2009 - Michele Leonhart*, BEMIDJI STATE UNIV., http://www.bsualumni.org/alumni/awards/outstanding_alumni/2009/michele_leonhart.cfm.

94. *Agencies*, U.S. DEP’T OF JUSTICE, <http://www.justice.gov/agencies>.

Attorney General has authority to add or remove items from schedules of controlled substances,⁹⁵ subject to the Administrative Procedures Act.⁹⁶

A controlled substance is classified as Schedule I based upon three criteria. First, the substance must have a high potential for abuse.⁹⁷ Second, the substance must have no accepted medical use in the United States.⁹⁸ Lastly, there must be “a lack of accepted safety for use of the drug or other substance under medical supervision.”⁹⁹ The Attorney General determines such scheduling.¹⁰⁰

Presently, the DEA has interpreted the CSA as prohibiting any material that contains any quantity of THC—as opposed to interpreting it to prohibit marijuana by definition.¹⁰¹ The definition of marijuana under the CSA is identical to the definition of marijuana under the Marijuana Tax Act of 1937.¹⁰² Nonetheless, the DEA explained that Congress’s protection of industrial hemp lay not in the definition of marijuana, but instead in tax scheme.¹⁰³ The previously existing tax structure under the Marijuana Tax Act of 1937 was ultimately replaced with a broad criminal ban on all substances containing THC.¹⁰⁴

Moreover, because the importation, distribution, and sale of marijuana is not a fundamental right, its classification as Schedule I is reviewed under a rational basis standard.¹⁰⁵ What is more, Congress gave no indication there should be a distinction drawn between recreational marijuana and industrial hemp.¹⁰⁶ Therefore, under *Chevron* deference, the DEA and the courts must defer to the “unambiguously expressed intent of Congress”¹⁰⁷ and enforce 21 United States Code § 812 as is.

95. See 21 U.S.C. § 811(a) (2014).

96. *Id.*

97. 21 U.S.C. § 812(1)(A) (2014).

98. 21 U.S.C. § 812(1)(B) (2014).

99. 21 U.S.C. § 812(1)(C) (2014).

100. 21 U.S.C. §§ 811(a)(1)(A), (B) (2014).

101. Interpretation of Listing of “Tetrahydrocannabinols” in Schedule I, *supra* note 70.

102. *Id.*; see also The Marijuana Tax Act of 1937, Pub. L. No. 75-238, 50 Stat. 551 (repealed 1956); Thomas A. Duppong, Note, *Industrial Hemp: How the Classification of Industrial Hemp as Marijuana Under the Controlled Substances Act Has Caused the Dream of Growing Industrial Hemp in North Dakota to Go Up in Smoke*, 85 N.D. L. REV. 403, 416 (2009).

103. Interpretation of Listing of “Tetrahydrocannabinols” in Schedule I, *supra* note 70. (citing N.H. Hemp Council, Inc. v. Marshall, 203 F.3d 1, 7 (1st Cir. 2000)).

104. *Id.*

105. *United States v. Fogarty*, 692 F.2d 542, 547 (8th Cir. 1982) (citations omitted).

106. Interpretation of Listing of “Tetrahydrocannabinols” in Schedule I, *supra* note 70.

107. See *Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 842-43 (1984) (holding that a court reviewing an agency’s decision must ask two questions: first whether congressional intent on the matter is clear. If so, the court and the agency must defer to “the unambiguously expressed intent of Congress. However, if the statute is ambiguous, a court must determine whether an agency has permissibly construed the statute).

In *Hemp Industries Association v. DEA*,¹⁰⁸ however, the Ninth Circuit held the definition of THC under the CSA was limited to synthetic forms of THC only.¹⁰⁹ Accordingly, the Ninth Circuit held it owed the DEA no deference under the *Chevron* standard.¹¹⁰ The court relied on its earlier holding on the matter from *Hemp Industries v. DEA*,¹¹¹ which explained a regulation change in 1971 excluded organic THC from the definition of Schedule I.¹¹² The current provision of the Code of Federal Regulations, however, defines THC as “[m]eaning tetrahydrocannabinols *naturally* contained in a plant of the genus *Cannabis* (*cannabis* plant), *as well as* synthetic equivalents of the substances contained in the cannabis plant.”¹¹³

The Attorney General is allowed by statute to “remove any drug or other substance from the schedules if he finds that the drug or other substance does not meet the requirements for inclusion in any schedule.”¹¹⁴ The Attorney General may take such action pursuant to his or her own initiative, at the request of the Secretary,¹¹⁵ or upon the petition of an interested party.¹¹⁶ In light of the distinctive biochemical differences between recreational marijuana and industrial hemp¹¹⁷ and the ratification of the Agricultural Act of 2014,¹¹⁸ which permits industrial hemp pilot programs, the Attorney General should remove substances containing a THC concentration of less than 0.3% from Schedule I controlled substances.

III. THE SCIENTIFIC CASE AGAINST THE CSA’S BLANKET CLASSIFICATION OF CANNABIS AS A SCHEDULE I CONTROLLED SUBSTANCE AND THE TAX CONSEQUENCES OF INACTION

The CSA classifies as a Schedule I controlled substance “any material, compound, mixture, or preparation, which contains *any quantity* of the following hallucinogenic substances . . . (10) Marijuana . . . (17)

108. 357 F.3d 1012, 1017 (9th Cir. 2004).

109. *Id.*

110. *Hemp*, 357 F.3d at 1016. *See also Chevron*, 467 U.S. at 842-43.

111. 333 F.3d 1082, 1090-91 (9th Cir. 2003).

112. *Id.*

113. 21 C.F.R. § 1308.11(d)(31) (emphasis added).

114. 21 U.S.C. § 811(a)(2) (2014).

115. 21 U.S.C. § 802(24) (2014) (defining “Secretary” as the Secretary of Health and Human Services).

116. 21 U.S.C. § 811(a)(2) (2014).

117. *See discussion infra* Part III.A.

118. Agricultural Act of 2014, Pub. L. No. 113-79, 121 Stat. 649.

Tetrahydrocannabinols . . . ”¹¹⁹ This blanket classification ignores the fact that the quantum of THC varies significantly between recreational marijuana and industrial hemp. Recreational marijuana typically has a THC content of 5-10%, although levels of 25% have been reported.¹²⁰

In fact, a THC concentration of 1% is reported to be the minimum concentration necessary for intoxication.¹²¹ Hemp, containing THC levels of about 0.3%, is generally considered too low to be an intoxicant.¹²² Indeed, 0.3% is the maximum concentration of THC allowable for industrial hemp under North Dakota law.¹²³ North Dakota is one of thirteen states that permit industrial hemp for research and commercial purposes.¹²⁴ “The large disparity in THC levels between marijuana and industrial hemp has led many in the scientific community to contend that marijuana and industrial hemp should be differentiated by their biochemical, rather than physical, composition.”¹²⁵

A. THE NECESSITY FOR CLASSIFICATION OF MARIJUANA BASED ON BIOCHEMICAL COMPOSITION FOR PURPOSES OF THE CONTROLLED SUBSTANCE ACT

The term “hemp” generally refers to *Cannabis sativa* L., but it has also been generally applied to multiple fiber crops.¹²⁶ *Cannabis* itself contains a class of more than sixty chemicals, which are collectively known as “cannabinoids;” however, only a few contain psychoactive properties.¹²⁷ Of the psychoactive cannabinoids, delta-9 tetrahydrocannabinol (Δ^9 -THC) is the primary component in producing psychological effects on the brain.¹²⁸ On the other hand, cannabidiol (“CBD”) does not produce marijuana’s signature intoxicating effect; in fact, it counteracts the effects of THC.¹²⁹ Furthermore, the flowers or leaves of the plant are generally

119. 21 U.S.C. §§ 812(c)(10), (17) (2014) (emphasis added).

120. Ernest Small & David Marcus, *Hemp: A New Crop with New Uses for North America*, in *TRENDS IN NEW CROPS AND NEW USES* 292 (J. Janick and A. Whipkey eds., 2002).

121. *Id.*

122. *Id.*

123. N.D. CENT. CODE § 4-41-01 (2013).

124. Elizabeth Nolan Brown, *More States Moving to Legalize Industrial Hemp Farming*, REASON.COM (Apr. 29, 2014), <http://reason.com/blog/2014/04/29/industrial-hemp-legalization-in-states>. In addition to North Dakota, other states that allow hemp use in this manner include California, Colorado, Hawaii, Indiana, Kentucky, Maine, Montana, Nebraska, Oregon, Utah, Vermont, and West Virginia. As of 2014, some 25 states have considered industrial hemp legislation. *Id.*

125. Duppong, *supra* note 102, at 407.

126. Small & Marcus, *supra* note 120, at 284.

127. *Id.* at 291.

128. *Id.* at 292.

129. *What is CBD?*, PROJECT CBD, <http://www.projectcbd.org/about/introducing-cbd/>.

used to produce the drug marijuana; conversely, the stalk is used for industrial purposes.¹³⁰ Federal law provides an exception to the term “marijuana” that includes the plant’s mature stalks, fiber produced from the stalks, oil or cake made from the seeds, and “any other compound, manufacture, salt, derivative, mixture, or preparation of such mature stalks (except resin extracted therefrom), fiber, oil, or cake, or the sterilized seed of such plant which is incapable of germination.”¹³¹

The present circuit split between the Eighth and Ninth Circuit Courts of Appeals is indicative of the need for a refined classification of recreational marijuana and industrial hemp. Both the Eighth Circuit Court of Appeals and the United States District Court for the District of North Dakota have upheld the proposition *any* material containing *any* quantity of THC, regardless of intended use, is subject to the CSA.¹³² In contrast, the Ninth Circuit Court of Appeals held non-psychoactive hemp was *not* included as a Schedule I controlled substance.¹³³

Some authorities have recognized a distinction between two species of Cannabis, namely *C. sativa* subspecies *sativa* and *C. sativa* subspecies *indica*.¹³⁴ *C. sativa* subspecies *sativa* can generally be found growing north of 30° latitude¹³⁵ in places such as Europe and Canada.¹³⁶ This subspecies of cannabis is the variety primarily used for industrial purposes.¹³⁷ In fact, hemp was successfully cultivated in the southeastern portion of North Dakota during the 1940s.¹³⁸ On the other hand, *C. sativa* subspecies *indica* has poor fiber quality and is the type generally used for illicit drug use.¹³⁹ Ironically, high-fiber industrial hemp is incapable of producing marijuana’s intoxicating effect, whereas high-THC marijuana produces low-quality fiber.¹⁴⁰

130. Duppong, *supra* note 102, at 407.

131. 21 U.S.C. § 802(16) (2014).

132. *See* *Monson v. Drug Enforcement Admin.*, 522 F. Supp. 2d 1188, 1202 (D.N.D. 2007) (“Nevertheless, the Eighth Circuit has clearly and unequivocally held that *industrial hemp is subject to the Controlled Substances Act*”) (emphasis added); *see also* *United States v. White Plume*, 447 F.3d 1067, 1073 (8th Cir. 2006).

133. *Hemp Indus. Ass’n v. Drug Enforcement Admin.*, 357 F.3d 1012, 1018 (9th Cir. 2004).

134. Robert J. Hill, *Marijuana, Cannabis sativa L. - Moraceae, Cannaboidae*, 9, No. 1-2 PA. DEP’T OF AGRIC., BUREAU OF PLANT INDUS. Vol. 1, 3 (1983).

135. *Id.*; *see generally* *Industrial Hemp Production*, UNIV. OF KENTUCKY C. OF AGRIC., FOOD AND ENVIRONMENT (2014) <http://www.uky.edu/Ag/CCD/introsheets/hempproduction.pdf> (reporting that approximately 46°F is the ideal *minimal* soil temperature for hemp seedlings).

136. T. Mark Schisel, *Cannabis Sativa*, N.D. STATE UNIV., <http://www.ndsu.edu/pubweb/chiwonlee/plsc211/student%20papers/articles08/TSchisel/hard%20copy.html>.

137. *Id.*

138. Duppong, *supra* note 102, at 412.

139. Schisel, *supra* note 136.

140. Ballanco, *supra* note 20, at 1166.

The strongest argument for the federal government and the DEA to recognize the biochemical difference between recreational marijuana and hemp cultivated for industrial purposes comes from the text of the Agricultural Act of 2014 itself.¹⁴¹ The Act recognizes industrial hemp as “the plant *Cannabis sativa* L. and any part of such plant, whether growing or not, with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent on a dry weight basis.”¹⁴² Furthermore, the maximum amount of Δ^9 -THC allowed for industrial hemp is consistent with prior studies that indicate that a 0.3% THC concentration is too low for hemp to have an intoxicating effect.¹⁴³

Therefore, the federal government has implicitly acknowledged there is, in fact, a difference between recreational marijuana and industrial hemp based on THC content. Accordingly, the blanket classification of any substance containing any quantity of THC as a Schedule I controlled substance by the CSA must be amended. A reformed classification defining recreational marijuana as any substance with a THC concentration of *greater* than 0.3% and industrial hemp as any substance containing a THC concentration of 0.3% *or less* would create clarity in what is presently a muddled area of federal drug enforcement law.

B. INTERNAL REVENUE CODE SECTION 280E

Taxation also presents a detriment to hemp cultivation. In *James v. United States*, the United States Supreme Court stated all income, from both legal and illegal sources, is taxable.¹⁴⁴ The Internal Revenue Code precludes tax credits or deductions of any kind for income derived from trafficking in controlled substances prohibited by state or federal law.¹⁴⁵ Consequently, Section 280E of the Internal Revenue Code presents an enormous detriment to the production of industrial hemp.

Unfortunately, the plain language of the Act suggests only research endeavors—as opposed to commercial operations—are protected,¹⁴⁶ the legality of industrial hemp under state law notwithstanding.¹⁴⁷ Thus, there have been no changes to the Internal Revenue Code that would allow for any tax credits or exemptions. In fact, the IRS issued a letter to several state representatives in 2011 reiterating the federal government’s position

141. Agricultural Act of 2014, Pub. L. 113-79, 128 Stat. 649.

142. *Id.*

143. Small & Marcus, *supra* note 120, at 292.

144. 366 U.S. 213, 218 (1961).

145. 26 U.S.C. § 280E (2014).

146. Agricultural Act of 2014, Pub. L. No. 113-79, 128 Stat. 649.

147. *See, e.g.*, N.D. CENT. CODE § 4-41-01 (2013).

“the term controlled substances has the meaning provided in the Controlled Substances Act.”¹⁴⁸

IV. THE AGRICULTURAL ACT OF 2014

On February 7, 2014, the 113th Congress passed the Agricultural Act of 2014.¹⁴⁹ The Act only permits industrial hemp research by institutions of higher education pursuant to an agricultural pilot program.¹⁵⁰ These so-called “pilot programs” operate in states that permit industrial hemp and are subject to three requirements.¹⁵¹ First, only institutions of higher education and state departments of agriculture may cultivate industrial hemp.¹⁵² Second, sites used for cultivating industrial hemp must be registered with the state’s department of agriculture.¹⁵³ Lastly, state departments of agriculture must carry out these programs in accordance with the Act.¹⁵⁴

Although the Agricultural Act is unquestionably a step in the right direction in terms of federal policy regarding industrial hemp and its potential economic benefits, the federal government continues to drag its heels. First, the Act only allows industrial hemp to be cultivated for research purposes at institutions of higher education under state supervision.¹⁵⁵ In light of the body of research and law on industrial hemp from the past fifteen years, this provision of the Agricultural Act begs the question of whether more research is necessary.¹⁵⁶ Second, the Agricultural Act makes no provision for collaborative research because it says nothing about researchers’ ability to transport marijuana and hemp for those reasons. Indeed, high levels of productivity appear to be correlated to high

148. Letter from Andrew Keyso, Deputy Assoc. Chief Counsel of Income Tax & Accounting, Internal Revenue Service, to Fortney Pete Stark, U.S. House of Representatives (March 25, 2011) (on file with the IRS), *available at* <http://www.irs.gov/pub/irs-wd/11-0005.pdf>.

149. Agricultural Act of 2014, Pub. L. No. 113-79, 128 Stat. 649.

150. *Id.*; *see also* 20 U.S.C. §§ 1001(a)(1)-(5) (1998) (defining “institution of higher education”).

151. Agricultural Act of 2014, Pub. L. No. 113-79, 128 Stat. 649.

152. *Id.*

153. *Id.*

154. *Id.*

155. *Id.*

156. *See, e.g.*, N.D. CENT. CODE ch. 4-41 (2013) (statute allowing for the cultivation of industrial hemp in North Dakota passed in 1999); Small & Marcus, *supra* note 120, at 292 (academic article published in 2002 explaining that a THC concentration of 0.3% is too low for intoxication); David G. Kraenzel et al., *Industrial Hemp as an Alternative Crop in North Dakota*, THE INST. FOR NATURAL RES. AND ECONOMIC DEV. (INRED) N.D. STATE UNIV., *available at* <https://www.votehemp.com/PDF/aer402.pdf> (a study published in 1998 by researchers at North Dakota State University on the potential of growing hemp in North Dakota).

levels of collaboration among researchers.¹⁵⁷ However, with no exceptions in the Agricultural Act for transporting hemp for research purposes, the threat of federal criminal liability remains.¹⁵⁸ It is therefore reasonable to infer collaborative research efforts will be chilled as a result, thus defeating the initial purpose of the Agricultural Act's industrial hemp provisions, i.e., fostering research.

Last, the Agricultural Act does not provide guidance for states, such as North Dakota, that have already legalized industrial hemp,¹⁵⁹ nor does it provide guidance for the DEA in terms of licensing hemp growers in such states. Although a DEA permit is still required to begin cultivating hemp in North Dakota,¹⁶⁰ the Agricultural Act overlooks this fact and primarily focuses on state departments of agriculture and institutions of higher education as the forerunners of industrial hemp cultivation.¹⁶¹ The Agricultural Act, therefore, does not provide the DEA with guidance under the existing licensing scheme. Without further clarity, the stalemate between the DEA and state residents seeking industrial hemp licensure will most likely continue.¹⁶² States with sufficient existing regulatory schemes, such as North Dakota, will be handcuffed until the federal government definitively issues guidance. It could be a long wait.¹⁶³

V. THE BENEFITS OF INDUSTRIAL HEMP

As of 2012, the retail hemp industry witnessed sales of about \$500 million.¹⁶⁴ On average, sales have increased by an average of \$26 million per year since the 1990s.¹⁶⁵ It is estimated the worldwide hemp market encompasses some 25,000 products in nine markets.¹⁶⁶ Unfortunately, as of 2011, the United States still imported about \$11.5 million in hemp

157. J. Sylvan Katz & Ben R. Martin, *What is research collaboration?*, 26 RES. POLICY 1, 5 (1997).

158. See 21 U.S.C. § 841(a) (2014) (illegal to distribute or dispense a controlled substance).

159. N.D. CENT. CODE § 4-41-01 (2013) (legalizing industrial hemp).

160. See *Monson v. Drug Enforcement Admin.*, 522 F. Supp. 2d 1188, 1202 (D.N.D. 2007) (requiring a DEA permit, state law notwithstanding).

161. See Agricultural Act of 2014, Pub. L. No. 113-79, 128 Stat. 649.

162. See Johnson, *supra* note 24, at 1.

163. Christina Marcos & Ramsey Cox, *Historically unproductive Congress ends*, THE HILL (Dec. 16, 2014), <http://thehill.com/blogs/floor-action/senate/227365-historically-unproductive-congress-ends> (approval ratings for Congress reached an all-time low at 14% in 2013, followed by a 15% approval rating in 2014).

164. Anthony Serro, *Chapter 398: The Highly-Regulated Hemp Marketplace—Economic Powerhouse or Law Enforcement Nightmare?*, 45 MCGEORGE L. REV. 495, 495 (2014).

165. *Id.*

166. Johnson, *supra* note 24, at 4. Such markets include agriculture, textiles, recycling, automotive, furniture, food/nutrition/beverages, paper, construction materials, and personal care.

products.¹⁶⁷ The nation's leading suppliers of hemp include Hungary, Romania, India, and China, which is the United States' largest supplier of hemp.¹⁶⁸ However, studies conducted over the past two decades at land grant universities, including institutions located in Minnesota and North Dakota, are indicative of a positive market outlook for the future of the hemp industry.¹⁶⁹

A. HEMP USAGE IN THE UNITED STATES

Hemp's history as an agricultural commodity predates the country's founding. For example, in 1619, the Virginia Assembly *required* every farmer to grow hemp.¹⁷⁰ By the late 1800s, marijuana was openly sold in pharmacies.¹⁷¹ What is more, as recent as the 1940s, during World War II, the United States Department of Agriculture *encouraged* hemp cultivation through its so-called "Hemp for Victory" program.¹⁷² The Department even issued draft deferments to persons who would stay home and grow hemp.¹⁷³ By 1943, the program harvested 375,000 acres of hemp.¹⁷⁴ Indeed, hemp was grown in North Dakota during this time,¹⁷⁵ as well as during World War I.¹⁷⁶

B. HEMP POTENTIAL IN NORTH DAKOTA

Hemp is valued as a fiber source. This is primarily due to the sheer length of hemp fibers. "The primary bast fibers in the bark are 5-40mm long, and are amalgamated in fiber bundles which can be 1-5m long"¹⁷⁷ In addition to its length, hemp fibers also have a high tensile

167. Serro, *supra* note 164, at 495. This statistic was based on the importation of hemp seeds and fibers that were imported to be used in further manufacturing.

168. *Id.*

169. *Id.* at 7.

170. *Frontline*, PBS, <http://www.pbs.org/wgbh/pages/frontline/shows/dope/etc/cron.html>.

171. *Id.*

172. *Id.*

173. *Id.*

174. *Id.*

175. Duppong, *supra* note 102, at 412.

176. Small & Marcus, *supra* note 120, at 284.

177. *Id.* at 294.

strength,¹⁷⁸ approximately 80,000 pounds per square inch,¹⁷⁹ and a high wet strength.¹⁸⁰

Hemp is also a durable crop, able to grow in a variety of climates.¹⁸¹ As discussed above, hemp has been cultivated in North Dakota.¹⁸² A study by researchers at North Dakota State University found the ideal location for hemp cultivation would be the eastern one-third of the state.¹⁸³ This finding was due to the light to medium soils found in that region of North Dakota.¹⁸⁴ With irrigation improvements, cultivation is also feasible in the central and western parts of the state.¹⁸⁵

Hemp is also naturally resistant to most pests and is able to outcompete most weeds.¹⁸⁶ In addition, it requires no chemical pesticides.¹⁸⁷ Hemp, when grown for fiber, is always thickly seeded and “shades out” competing weeds.¹⁸⁸ In addition, the study by North Dakota State University’s Institute for Natural Resources and Economic Development found industrial hemp would complement existing North Dakota crops, such as wheat and potatoes.¹⁸⁹ What is more, “hemp has water and fertilizer requirements similar to corn and wheat.”¹⁹⁰

In fact, “[t]he hemp plant is also known to *improve* soil conditions for rotational crops”¹⁹¹ The positive impact of hemp on soil conditions

178. “Tensile strength” is “the maximum load that a material can support without fracture when being stretched, divided by the original cross-sectional area of the material.” *Tensile strength*, ENCYCLOPEDIA BRITANNICA, <http://www.britannica.com/EBchecked/topic/587505/tensile-strength>.

179. Kolosov, *supra* note 42, at 241. The tensile strength of hemp is twice that of cotton. *Id.*

180. Small & Marcus, *supra* note 120, at 295. *See also* D. Braga et al., *Recent Developments in Wet Strength Chemistry Targeting High Performance and Ambitious Environmental Goals*, PROFESSIONAL PAPERMAKING 30 (2009) (“Wet strength” is defined as “the mechanical strength of paper remaining after complete soaking in water”).

181. Logan Yonavjak, *Industrial Hemp: A Win-Win For The Economy And The Environment*, FORBES (May 29, 2013), <http://www.forbes.com/sites/ashoka/2013/05/29/industrial-hemp-a-win-win-for-the-economy-and-the-environment/>. In fact, hemp has been successfully cultivated in North Dakota and has even been found growing naturally in the state. *See* Duppong, *supra* note 102, at 412.

182. Duppong, *supra* note 102, at 412.

183. Kraenzel et al., *supra* note 156, at 8.

184. *Id.*

185. *Id.*

186. Yonavjak, *supra* note 181.

187. Kolosov, *supra* note 42, at 241.

188. Small & Marcus, *supra* note 120, at 315.

189. Kraenzel et al., *supra* note 156, at 8.

190. Ballanco, *supra* note 20, at 1168. North Dakota farmers harvested over 6 million acres of wheat and approximately 3.6 million acres of corn in 2013. *2013 State Agriculture Overview: North Dakota*, U.S. DEP’T OF AGRIC., http://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=NORTH%20DAKOTA.

191. Keller, *supra* note 48, at 561 (emphasis added).

cannot be overstated. Hemp was planted near Chernobyl¹⁹² due to its ability to remove contaminants from the soil.¹⁹³ This process is known as “phytoremediation.” “Phytoremediation is a process that takes advantage of the fact that green plants can extract and concentrate certain elements within their ecosystem.”¹⁹⁴ Some plants are even able to extract metal from the soil via their root system and absorb such metals without being damaged.¹⁹⁵

Yet another exciting potential for hemp is its use as biofuel. Hemp is capable of producing ten tons of biofuel per acre in four months.¹⁹⁶ The source of this potential fuel is contained in the seeds of the hemp plant.¹⁹⁷ Moreover, researchers at the University of Connecticut reported a 97% conversion rate from hemp oil to biodiesel.¹⁹⁸ Hemp’s energy gain was estimated at 540%.¹⁹⁹ In comparison, corn used for ethanol was found to have a 34% energy gain.²⁰⁰

V. CONCLUSION

Hemp, despite its enormous potential for North Dakota’s economy, is still illegal under federal law.²⁰¹ Any substance containing any amount of THC is considered a Schedule I controlled substance.²⁰² Scientific evidence, however, clearly demonstrates this classification is over simplified and arguably nets two different plants.²⁰³ In light of these considerations, the United States Attorney General should follow North

192. On April 26, 1986, an accident at the nuclear power station at Chernobyl, Ukraine released enormous amounts of radioactive material. As a result, large areas of Belarus, Russia, and Ukraine were contaminated affecting millions of people. *Background on Chernobyl Nuclear Power Plant Accident*, U.S. NUCLEAR REG. COMMISSION (Dec. 12, 2014), <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/chernobyl-bg.html>.

193. *Phytoremediation: Using Plants to Clean Soil*, BOTANY – GLOBAL ISSUES MAP, MCGRAW HILL (Feb. 2000), http://www.mhhe.com/biosci/pae/botany/botany_map/articles/article_10.html.

194. *Id.*

195. *Id.*

196. Keller, *supra* note 48, at 560.

197. Christine Buckley, *Hemp Produces Viable Biodiesel, UConn Study Finds*, UCONN TODAY (Oct. 6, 2010), http://today.uconn.edu/blog/2010/10/hemp-produces-viable-biodiesel-uconn-study-finds/?utm_campaign=Tiers&utm_source=Tier2&utm_medium=Frontpage.

198. *Id.*

199. Keller, *supra* note 48, at 577.

200. *Id.*

201. 21 U.S.C. § 841(a) (2014).

202. 21 U.S.C. §§ 812 Schedule 1(c)(10), (17) (2014); *see also* United States v. White Plume, 447 F.3d 1067, 1072 (8th Cir. 2006).

203. Ballanco, *supra* note 20, at 1166; *see also* Small & Marcus, *supra* note 120, at 292 (discussing the significant difference in THC concentration in marijuana vs. industrial hemp).

Dakota's lead and remove plants containing 0.3% or less of THC from Schedule I.²⁰⁴

Congress appears to be leaning in this direction with the passage of the Agricultural Act.²⁰⁵ Yet, despite the contemplation of industrial hemp cultivation in the Act, no guidance is given to states, like North Dakota, that have already legalized industrial hemp.²⁰⁶ Another consequence of Congress's failure to act on industrial hemp is the tax liability hemp producers will incur.²⁰⁷ Internal Revenue Code section 280E prohibits any tax credits or deductions from businesses that derive revenue from trafficking in controlled substances.²⁰⁸ Unfortunately, the IRS has stated reforming this provision of the Internal Revenue Code is Congress's prerogative.²⁰⁹ As a result, even if the DEA were to issue permits to hemp growers,²¹⁰ entering the market is cost-prohibitive.

North Dakota was the first state to create a licensing system for industrial hemp.²¹¹ This licensing system effectively defends against illegal drug activity.²¹² In terms of preventing those inclined to engage in illegal drug trafficking, North Dakota maintains stricter standards than the DEA.²¹³ In light of North Dakota's strict regulatory scheme, the need for DEA oversight is questionable. With the DOJ's present policy stance on marijuana, the last hurdle for the state to clear is the DEA's licensing requirements.²¹⁴ To say the least, North Dakota presents a strong case for a DEA rubber stamp on hemp growers statewide due to its rigorous licensing requirements.

204. 21 U.S.C. § 811(a)(2) (2014). The Attorney General is permitted to use his or her rulemaking authority to conduct hearings, listen to testimony, and ultimately decide whether to add or remove a substance from a drug schedule. *Id.*

205. Agricultural Act of 2014, Pub. L. No. 113-79, § 7606, 128 Stat. 648, 912 (industrial hemp grown for research purposes may have a THC concentration of 0.3% or less).

206. *See generally id.*; N.D. CENT. CODE § 4-41-01 (2013); Brown, *supra* note 124 (listing the thirteen states which currently allow industrial hemp).

207. 26 U.S.C. § 280E (2014).

208. *Id.*

209. Keyso, *supra* note 148.

210. Johnson, *supra* note 24, at 3 (noting that the DEA has not granted any current licenses to grow hemp, even for research purposes).

211. Rogers, *supra* note 28, at 487-88.

212. *See* Kolosov, *supra* note 42, at 250; *see generally* Cole Memo, *supra* note 1, at 2 (delineating eight activities that will cause the federal government to enforce federal drug laws regardless of state law).

213. *Compare* 21 U.S.C. § 823(a)(4) (2014) (screening out applicants with prior convictions under the CSA), *with* N.D. CENT. CODE § 4-41-02(1) (2013) (screening out applicants with any prior *criminal* conviction).

214. 21 C.F.R. § 1309.11(a) (2009); *see also* Cole Memo, *supra* note 1, at 1-2.

In 1938, *Popular Mechanics* referred to hemp as “the new billion dollar crop” that could be used to produce over 25,000 products.²¹⁵ The hemp industry, as of 2012, was said to net approximately \$500 million.²¹⁶ Fortunately for North Dakota, hemp was once cultivated in the state.²¹⁷ In fact, a study by North Dakota State University held hemp could grow in North Dakota again and even positively complement existing crops.²¹⁸ Most importantly, hemp demonstrated great potential as an alternative fuel source.²¹⁹

Oil booms come and go.²²⁰ North Dakota saw oil booms in the 1950s, the 1980s, and most recently, the mid-2000s to the present.²²¹ Recently, oil has been on a downturn.²²² Whether oil prices will continue to decline or again increase is anyone’s guess. However, one thing is certain. North Dakota has the tools, land space, and proper climate to capitalize on an untapped energy source—not to mention the ever-increasing market for hemp-based products.²²³

North Dakota’s petroleum-based resources are abundant.²²⁴ Indeed, the positive effects of the current boom on the state’s economy should not be understated.²²⁵ However, North Dakota’s economy continues to be dominated by the state’s agricultural roots.²²⁶ With comprehensive

215. See Johnson, *supra* note 24, at 4 (estimating that the number of product derivatives is still at 25,000).

216. Serro, *supra* note 164, at 495.

217. Duppong, *supra* note 102, at 412.

218. Kraenzel et al., *supra* note 156, at 8.

219. See Buckley, *supra* note 197.

220. Steven Mufson, *In North Dakota, the gritty side of an oil boom*, WASH. POST (July 18, 2012), http://www.washingtonpost.com/business/economy/in-north-dakota-the-gritty-side-of-an-oil-boom/2012/07/18/gJQAZk5ZuW_story.html.

221. *Id.*

222. Jennifer Brooks, *Hard times could be ahead for North Dakota’s oil boom towns*, THE STAR TRIB. (Jan. 4, 2015), <http://www.startribune.com/lifestyle/health/287422241.html>.

223. See Johnson, *supra* note 24, at 4-6.

224. Zachary R. Eiken, *The Dark Side of the Bakken Boom: Protecting the Importance of an Oil and Gas Lease’s Bonus Payment Through a Proposed Legislative Amelioration of Irish Oil and Gas, Incorporated v. Riemer*, 89 N.D. L. REV. 679, 680-81 (2013) (noting that the Bakken shale formation contains over 500 billion barrels of oil, with 4 billion barrels being recoverable with contemporary technology).

225. See Selam Gebrekidan, *Shale boom turns North Dakota into No. 3 oil producer*, REUTERS (Mar. 8, 2012), <http://www.reuters.com/article/2012/03/08/us-oil-output-bakken-idUSBRE82714V20120308> (reporting that North Dakota had the lowest unemployment rate nationwide as a result of the boom); *North Dakota sees increases in real GDP per capita following Bakken production*, U.S. ENERGY INFO. ADMIN. (July 12, 2013), <http://www.eia.gov/todayinenergy/detail.cfm?id=12071> (reporting North Dakota’s real per capita GDP was 29% above the national average as of 2012).

226. *North Dakota Legendary – Quick Facts*, N.D. STUDIES, <http://www.ndstudies.org/resources/legendary/quick-facts.html>. Agriculture in the state is a \$5.8 billion per year industry. See *id.*

regulatory structures already in existence for cultivating industrial hemp, a proven cash crop,²²⁷ North Dakota is in a unique position to lead the way into a new agriculture and energy frontier. Unfortunately, antiquated federal drug policy continues to prevent the state from capitalizing on the economic potential of industrial hemp farming.²²⁸ Congress or the Attorney General should act now to remove the barriers and allow an old industry to flourish again.²²⁹

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227. Serro, *supra* note 164, at 495. The retail hemp market generated nearly \$500 million in 2012. *Id.*

228. See Brown, *supra* note 124 (listing the thirteen states which have legalized industrial hemp).

229. See Small & Marcus, *supra* note 120, at 284 (“Hemp is one of the oldest sources of textile fiber, with extant remains of hempen cloth trailing back 6 millenia.”); see also *Frontline*, *supra* note 170 (detailing the timeline of hemp production in the United States, from its heyday, to the outright ban of marijuana by the mid-20th century, to the legalization of medical marijuana in California in 1996).

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