

OLD MACDONALD HID A FARM: EXAMINING ARIZONA’S PROSPECTS FOR LEGALIZING INDUSTRIAL HEMP

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“A main concern among legislators looking into the debate over legalization of industrial hemp is the fear that hemp fields might hide marijuana plants.”¹
“Because Arizona has a long growing season and many remote areas for hiding farms, it is . . . a source state for marijuana.”²

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1. Robin Lash, Comment, *Industrial Hemp: The Crop for the Seventh Generation*, 27 AM. INDIAN L. REV. 313, 318 (2003); see also Vanessa Rogers, Note, *The Future of Hemp in Kentucky*, 4 KY. J. EQUINE, AGRIC. & NAT. RESOURCES L. 479, 497 (2012) (“Legislators fear that hemp fields might hide illegal marijuana plants.”).

2. *State v. Maddox*, No. 07-09-0124, 2013 WL 3367850, at *10 (N.J. Super. Ct. App. Div. July 8, 2013). The lengths to which marijuana growers will go to conceal their activities is illustrated by the following example:

Defendant’s farm is located . . . in the “boondocks.” The only road to the farm ends at the curtilage, and most of the property is inaccessible except on foot. The edge of a forest borders much of the property, walling off parts of the field where defendant’s

I. INTRODUCTION

Industrial hemp is a variety of the plant species *cannabis sativa*,³ which also produces the hallucinogenic street drug commonly known as marijuana⁴ (or marihuana,⁵ as it is also occasionally spelled).⁶ Industrial hemp (often simply referred to as hemp)⁷ and marijuana differ in the amount of the cannabinoid known as delta-9-tetrahydrocannabinol,⁸ or THC,⁹ they contain,¹⁰ with hemp containing

marijuana crop allegedly was located. The marijuana crop was surrounded on other sides by barley, alfalfa, or corn, designed to keep it hidden from view . . . Defendant also had posted around the farm, at regular intervals, signs forbidding trespassing, as well as a fence.

United States v. DeBacker, 493 F. Supp. 1078, 1079 (W.D. Mich. 1980).

3. See *VoteHemp, Inc. v. DEA*, 237 F. Supp. 2d 55, 56 n.1 (D.D.C. 2002); *State v. Wright*, 588 N.W.2d 166, 169 n.2 (Minn. Ct. App. 1988); DAVID G. KRAENZEL ET AL., N.D. STATE UNIV. INST. FOR NAT. RES. & ECON. DEV., *INDUSTRIAL HEMP AS AN ALTERNATIVE CROP IN NORTH DAKOTA* 5 (1998).

4. See *State v. Bollander*, 515 P.2d 329, 332 (Ariz. 1973) (“[T]he term ‘marijuana’ as it is commonly understood is the green, leafy substance . . . composed primarily of the leaves of the *cannabis sativa* plant in its natural state.”). Marijuana is considered a street drug because it “‘cannot be dispensed under a prescription’ by a medical practitioner.” *Dobson v. McClennan*, 337 P.3d 568, 573 (Ariz. Ct. App. 2014); see also *United States v. Bindley*, 157 F.3d 1235, 1243 (10th Cir. 1998) (“[L]ike any street drug, marijuana is not subject to any governmental standard which would insure the potency or purity of any given quantity of marijuana.”); *Speer v. United States*, 512 F. Supp. 670, 672 (N.D. Tex. 1981) (Street drugs are “drugs not prescribed by treating physicians.”), *aff’d*, 675 F.2d 100 (5th Cir. 1982); *People v. O’Shaughnessy*, 430 N.E.2d 325, 329 (Ill. App. Ct. 1981) (distinguishing “legitimate drugs prescribed by physicians and ‘street drugs’ . . . procured illegally”).

5. See *State v. Anonymous* (1976-3), 355 A.2d 729, 733 (Conn. Super. Ct. 1976) (“Marihuana comes from the hemp plant, *cannabis sativa*. It is a psychoactive drug . . .”).

6. See *United States v. McMahon*, 673 F. Supp. 8, 11 n.4 (D. Me. 1987) (“The alternate spellings ‘marihuana’ and ‘marijuana’ refer to the same substance.”), *aff’d*, 861 F.2d 8 (1st Cir. 1988); *People v. Redden*, 799 N.W.2d 184, 199 n.1 (Mich. Ct. App. 2010) (O’Connell, P.J., concurring) (“‘Marijuana’ and ‘marihuana’ are both acceptable spellings for the name of this drug.”).

7. See, e.g., RENÉE JOHNSON, CONG. RESEARCH SERV., RL 32725, *HEMP AS AN AGRICULTURAL COMMODITY* 1 (2015); see also Allison E. Don, Note, *Lighten Up: Amending the Single Convention on Narcotic Drugs*, 23 MINN. J. INT’L L. 213, 243 n.9 (2014) (“For purposes of this Article, ‘hemp’ will be used to refer to industrial uses of the plant while ‘marijuana’ will be used to refer to the physical plant and all other uses.”).

8. See generally *Andrews v. Webb*, 685 F. Supp. 579, 583 n.6 (E.D. Va. 1988) (“Marijuana contains fifty chemical substances peculiar to it which are collectively termed ‘cannabinoids.’ Among these is tetrahydrocannabinol (THC), the predominant psychoactive cannabinoid metabolite.”); E.P.M. de Meijer et al., *Characterisation of Cannabis Accessions With Regard to Cannabinoid Content in Relation to Other Plant Characters*, 62 EUPHYTICA 187, 188 (1992) (“The concentration of cannabinoids . . . is considered to be the most direct measure to classify *Cannabis* according to psychoactive potency. Of the major cannabinoids, del-

insufficient THC – the principal psychoactive component of the cannabis plant¹¹ – to produce the “high” associated with the ingestion of marijuana.¹² Thus, unlike marijuana, which is typically (and at least under current federal law, illegally)¹³ grown for recreational or medicinal use as a drug,¹⁴ hemp typically is grown for use as a food product,¹⁵ or as a component for manufacturing purposes.¹⁶ As

ta-9-tetrahydrocannabinol (THC) is generally accepted to cause the psychoactive properties of *Cannabis* preparations.”).

9. See *United States v. Dolan*, 544 F.2d 1219, 1222 n.7 (4th Cir. 1976) (“‘THC’ is an abbreviation for tetrahydrocannabinol [sic], the hallucinogenic agent in marijuana”); *Sullivan v. Ford*, 828 F. Supp. 480, 481 n.1 (E.D. Mich. 1993) (“THC is an acronym for tetrahydrocannabinol, the active, intoxicating, ingredient in marijuana.”).

10. See *State v. Lucero*, 85 P.3d 1059, 1060-61 (Ariz. Ct. App. 2004); *Commonwealth v. Harrelson*, 14 S.W.3d 541, 549 (Ky. 2000); *Hearing on S.B. 1431 Before the H. Comm. on Educ.*, 45th Leg., 2d Sess. (Ariz. 2002) (statement of Robert Bogatin, Arizona Industrial Hemp Council); T. Randall Fortenbery & Michael Bennett, *Opportunities for Commercial Hemp Production*, 26 REV. AGRIC. ECON. 97, 99 (2004); Justin M. Holler et al., Δ^9 -Tetrahydrocannabinol Content of Commercially Available Hemp Products, 32 J. ANALYTICAL TOXICOLOGY 428, 428 (2008).

11. See *State ex rel. Montgomery v. Harris*, 346 P.3d 984, 985 n.1 (Ariz. 2014); *People v. Rigo*, 81 Cal. Rptr. 2d 624, 627 (Ct. App. 1999); *Few v. State*, 588 S.W.2d 578, 581 (Tex. Crim. App. 1979); ERIC C. THOMPSON ET AL., ECONOMIC IMPACT OF INDUSTRIAL HEMP IN KENTUCKY 1 (1998).

12. See *Hemp Indus. Ass’n v. DEA*, 357 F.3d 1012, 1013 n.2 (9th Cir. 2004) (noting that “industrial hemp plants . . . contain only a trace amount of the THC contained in marijuana varieties grown for psychoactive use.”); *Cockrel v. Shelby Cty. Sch. Dist.*, 270 F.3d 1036, 1042 (6th Cir. 2001) (“Unlike marijuana, the industrial hemp plant is only comprised of between 0.1 and 0.4 percent THC, an insufficient amount to have any narcotic effect.”).

13. See *United States v. Ellis*, 910 F. Supp. 2d 1008, 1013 (W.D. Mich. 2012) (“The federal law criminalizing marijuana manufacture is not subject to any exceptions; growing even a single marijuana plant is, *per se*, a federal offense.”); *People v. Redden*, 799 N.W.2d 184, 208 n.16 (Mich. Ct. App. 2010) (O’Connell, P.J., concurring) (“[U]nder federal law, cultivating marijuana is illegal.”); Op. Ark. Att’y Gen., No. 2013-117, 2013 WL 5521869, at *4 (Oct. 2, 2013) (noting that “the cultivation of cannabis for medicinal and recreational purposes is flatly prohibited under federal law”).

14. See *Raich v. Gonzales*, 500 F.3d 850, 864-65 (9th Cir. 2007) (“It is beyond dispute that marijuana has a long history of use – medically and otherwise – in this country.”); Michael M. O’Hear, *Federalism and Drug Control*, 57 VAND. L. REV. 783, 829 (2004) (“Marijuana has long been used for medicinal, as well as recreational, purposes.”); 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) (“The type of Cannabis known as marijuana has long been recognized for its medicinal and recreational properties.”).

15. See Holler et al., *supra* note 10, at 430 (“Hemp products have expanded from mainly oil to many different products since the mid-1990s. The range of products include several different beverages, nutritional bars, snacks, and candies.”); JOHNSON, *supra* note 7, at 5 (“Hemp seed and oilcake are used in a range of foods and beverages, and can be an alternative protein source.”).

one commentator explained, “the industrial variety of cannabis is not a drug for either medicinal or recreational purposes.”¹⁷

Despite hemp’s perceived environmental benefits and intriguing economic potential,¹⁸ cultivating industrial hemp essentially has been illegal in the United States since 1970,¹⁹ when Congress enacted the Controlled Substances Act (“CSA”).²⁰ In fact, there actually has been very little commercial hemp production in this country since the end of World War II,²¹ and apart from a few modest

16. California Industrial Hemp Farming Act, 97 Op. Cal. Att’y Gen. 21, 22 (2014) (“[U]nlike marijuana, industrial hemp is used for manufacturing purposes rather than for its psychoactive or therapeutic effects.”); Lash, *supra* note 1, at 323 (“Industrial hemp is grown for industrial purposes not medical or psychoactive purposes.”).

17. Seaton Thedinger, Note, *Prohibition in the United States: International and U.S. Regulation and Control of Industrial Hemp*, 17 COLO. J. ENVTL. L. & POL’Y 419, 422 (2006); *see also* Lash, *supra* note 1, at 323 (“Industrial hemp is grown for industrial purposes not medical or psychoactive purposes.”); Jessica Lee, Opinion, *Soil to Market: High Time to Lift the Hemp Ban*, ARIZ. DAILY WILDCAT ONLINE (Nov. 14, 2002), http://wc.arizona.edu/papers/96/57/03_3.html (“Hemp has never been grown for any psychoactive effects, but rather for its fiber.”).

18. *See* Fortenbery & Bennett, *supra* note 10, at 97 (“Those advocating [hemp’s] legalization have cited environmental benefits – low pesticide and herbicide requirements and adaptability to a wide range of agronomic conditions – and an array of current and potential uses as evidence of its value as an alternative cash crop for U.S. farmers.”).

19. *See* Hemp Indus. Ass’n v. DEA, 333 F.3d 1082, 1085 n.2 (9th Cir. 2003) (“The industrial hemp plant . . . may not be grown in the United States.”); *State v. Wright*, 588 N.W.2d 166, 169 n.2 (Minn. Ct. App. 1988) (stating that industrial hemp is “illegal to grow in the United States”). Between 1937 and 1970, “marijuana was repressed by the federal government . . . through a stamp tax so burdensome both financially and procedurally that it virtually eliminated any legal medicinal, industrial or recreational use of marijuana.” *Seeley v. State*, 940 P.2d 604, 627 n.10 (Wash. 1997) (Sanders, J., dissenting) (discussing the Marihuana Tax Act of 1937, 26 U.S.C. § 4741 (1964), *repealed by* Comprehensive Drug Abuse Prevention and Control Act of 1970, Pub. L. No. 91-513, tit. III, § 1101(b)(3)(A), 84 Stat. 1292); *see also* Lee, *supra* note 17 (“Due to the red tape that was created by the . . . Marihuana Tax Act of 1937, cultivating industrial hemp became nearly impossible.”).

20. *See* *United States v. White Plume*, 447 F.3d 1067, 1072 (8th Cir. 2006) (“[T]he CSA . . . criminalized the growing of marijuana whether it was intended for industrial-use or drug-use.”); Yonatan Even, *Appropriability and Property*, 58 AM. U. L. REV. 1417, 1470 n.166 (2009) (“The prohibition against cultivation of cannabis varieties, including hemp, can now be found in the Federal Controlled Substances Act, 21 U.S.C. §§ 801-971 (2006).”).

21. *See* *United States v. Adams*, 293 F. Supp. 776, 779 (S.D.N.Y. 1968) (“[A]t least since as long ago as the end of World War II, the legitimate cultivation and use of the plant have ceased almost completely.”); Lucien J. Dhooge, *The North American Free Trade Agreement and Hemp: America’s War on Drugs Gets Nipped in the Bud*, 21 WIS. INT’L L.J. 65, 83-84 (2003) (“During World War II, hemp enjoyed a brief renaissance in the United States as a substitute for jute and abaca, but it suffered a rapid decline after the resumption of imports and reimposition of legal restrictions at the end of hostilities.”); Lash, *supra* note 1, at 322 (“Following the war . . . the hemp mills shut down and farmers chose to produce crops

recent ventures,²² none whatsoever since the late 1950s,²³ when the last recorded industrial hemp crop was harvested in the state of Wisconsin.²⁴

Nevertheless, there is a renewed nationwide interest in industrial hemp,²⁵ which has triggered a modest but persistent movement to legalize (or more accurately, relegalize)²⁶ its production in a number of states.²⁷ As one pair of com-

without oppressive operating regulations.”).

22. See Kristen Wyatt, *Agricultural Buzz: Farmers Harvest Hemp*, USA TODAY (Oct. 20, 2013, 12:04 PM), http://usatoday30.usatoday.com/USCP/PNI/Business/2013-10-20-PNI1020biz-food-and-farm-industrial-hemp_ST_U.htm (“About two dozen Colorado farmers . . . raised industrial hemp [in 2013], . . . bringing in the nation’s first acknowledged crop in more than five decades.”). Despite Colorado’s legalization of industrial hemp through a voter-initiated constitutional amendment in 2012, production has been limited because “almost no industrial hemp has been cultivated to produce seed nor has viable hemp seed of known or documented origin been legally imported in decades.” COLO. DEP’T OF AGRIC., AVAILABILITY OF INDUSTRIAL HEMP SEED 1 (2015).

23. See JOHNSON, *supra* note 7, at 9 (referring to “the absence since the 1950s of any commercial and unrestricted hemp production in the United States”); Wyatt, *supra* note 22 (“The U.S. Department of Agriculture last recorded an industrial hemp crop in the late 1950s . . .”).

24. See Catherine Cowan, *Banned in the USA*, ST. GOV’T NEWS, Apr. 2002, at 28 (“[I]n 1958 the last industrial hemp crop was grown in Wisconsin.”); SKAIDRA SMITH-HEISTERS, REASON FOUND., ILLEGALLY GREEN: ENVIRONMENTAL COSTS OF HEMP PROHIBITION 4 (2008) (noting that “the last hemp crop was planted in Wisconsin” in 1958); ERIC WALKER, U. OF TENN. INST. OF AGRIC., STATUS OF INDUSTRIAL HEMP PRODUCTION IN TENNESSEE IN 2015 1 (2015) (“After the war, industrial hemp production significantly decreased with the last reported crop in the United States being produced in Wisconsin in 1958.”).

25. See *United States v. White Plume*, No. CIV 02-5071-JLV, 2016 WL 1228585, at *7 (D.S.D. Mar. 28, 2016) (acknowledging “the shifting national focus on industrial hemp as a viable agricultural crop”); Cowan, *supra* note 24, at 26 (“[A]n increasing number of states are showing interest in [hemp’s] industrial and agricultural potential to shore up their economies.”); JOHNSON, *supra* note 7, at 21 (“Since the mid-1990s, there has been a resurgence of interest in the United States in producing industrial hemp.”); 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, 425 (2009) (“Across America, farmers and business people have expressed excitement over the economic potential of industrial hemp.”).

26. See Ann Hassenpflug, *Sixth Circuit Court Decision Expands Teacher’s Role in the Classroom*, 171 EDUC. L. REP. 679, 680 (2003) (“Growing hemp was not always illegal in the U.S.”); Keller, *supra* note 14, at 561 (“Industrial hemp was not always illegal in the United States. In fact, before 1937 it was grown and manufactured into many products.”) (footnotes omitted).

27. See *State v. Wright*, 588 N.W.2d 166, 169 n.2 (Minn. Ct. App. 1988) (“[T]here is a movement to legalize the growth of industrial hemp”); ANTHONY CORTILET, MINN. DEP’T OF AGRIC., INDUSTRIAL HEMP REPORT 8 (2010) (“There are many advocates for the legalization of hemp in the United States”); Hassenpflug, *supra* note 26, at 680 (“A growing movement to legalize industrial hemp farming in the U.S. is developing.”).

mentators observed:

With far less fanfare than the medical marijuana movement, advocates of industrial hemp have also demonstrated a willingness to take on the federal government. Despite a federal ban on growing hemp because the plant contains THC, the North Dakota legislature . . . passed a bill permitting farmers to cultivate hemp. Maine, Montana, West Virginia, and other states have passed similar measures.²⁸

This article explores this movement's prospects in Arizona,²⁹ which is not among the states that have enacted legislation purporting to legalize industrial hemp.³⁰ Part I of the Article examines Arizona's current and historical legalization efforts. In Part II, the Author discusses the longstanding federal opposition to industrial hemp, and the impediment this opposition poses to legalization at the state level. The Author explores the principal reasons for the federal opposition in Part III of the article. In Part IV, the Author discusses some recent changes in federal law and policy that may prompt additional state legalization efforts. Part V briefly considers the economic feasibility of reviving the industrial hemp industry. The Author ultimately concludes that unless the federal government removes the remaining federal barriers to the production of hemp, further efforts to legalize production as a matter of state law are likely to be futile.

II. EFFORTS TO LEGALIZE INDUSTRIAL HEMP IN ARIZONA

A. Recent Legalization Efforts

Hemp has not always been an illegal commodity in Arizona,³¹ and in recent

28. Ruth C. Stern & J. Herbie DiFonzo, *The End of the Red Queen's Race: Medical Marijuana in the New Century*, 27 QUINNIPIAC L. REV. 673, 759-60 (2009); see also JOHNSON, *supra* note 7, at 22 ("Beginning around 1995, an increasing number of state legislatures began to consider a variety of initiatives related to industrial hemp.").

29. For the Author's view of the prospects for more comprehensive reform, see generally, Michael D. Moberly & Charitie L. Hartsig, *Reaching the End of Our Rope? An Appraisal of the Movement to Legalize Industrial Hemp*, 3 ACCORD 1 (2014).

30. See 2014 Tenn. Pub. Acts 916 ("[T]he states of California, Colorado, Kentucky, Maine, Montana, North Dakota, Oregon, Vermont, Washington and West Virginia have defined industrial hemp as a distinct agricultural crop and removed barriers to its production . . ."); Melanie Reid, *The Quagmire That Nobody in the Federal Government Wants to Talk About: Marijuana*, 44 N.M. L. REV. 169, 205 n.213 (2014) ("Colorado, Kentucky, Maine, Montana, North Dakota, Oregon, Vermont, Washington, and West Virginia have all legalized industrial hemp production in their respective states.").

31. See *Hearing on S.B. 1431 Before the H. Comm. On Educ.*, 45th Leg., 2d Sess. (Ariz. 2001) (statement of Senator Darden Hamilton, Sponsor) ("Arizona . . . now has irrigation and many advantages that did not exist when industrial hemp was last legally grown in the state.");

years the state's legislature occasionally has considered relegalizing its production.³² The most recent legislative effort, known as Arizona Senate Bill 1122,³³ would have excluded cannabis containing a THC concentration of "not more than 0.3 per cent" from the state statutory definition of marijuana.³⁴ The bill was rejected by the Arizona Senate Judiciary Committee in early 2014,³⁵ signaling at least a temporary halt to state legislative efforts to legalize industrial hemp.³⁶

However, Arizona's state constitution reserves to the people "the power to propose laws through the initiative process,"³⁷ and this process offers another po-

cf. *Stoudamire v. Simon*, 141 P.3d 776, 778 (Ariz. Ct. App. 2006) (noting that "marijuana was not illegal at the time of statehood").

32. See JOHNSON, *supra* note 7, at 22 (listing Arizona among the states that "have introduced . . . industrial hemp legislation").

33. S. 1122, 51st Leg., 2d Reg. Sess. (Ariz. 2014).

34. See generally *id.* § 1 (proposed amendment of Arizona Revised Statutes Annotated section 13-3401.19(b)(ii)). The proposed legislation reflected the fact that Arizona "criminalizes the production of marijuana." *State v. 1810 E. Second Ave.*, 969 P.2d 166, 171 (Ariz. Ct. App. 1998); see ARIZ. REV. STAT. ANN. § 13-3405. Excluding low-THC cannabis from the statutory definition of marijuana is a common means of attempting to legalize industrial hemp. See Matthew R. Rheingans, Note, *Impact of the Tobacco Settlement on Kentucky: Is Industrial Hemp a Viable Alternative for the Commonwealth?*, 14 J. NAT. RESOURCES & ENVTL. L. 115, 126 (1999) ("Perhaps the easiest way to legalize industrial hemp is to submit a bill to a state's legislature that would amend the definition of marijuana, as used in the criminal statutes of that state, to exclude industrial hemp and provide for monitoring of its growth.").

35. See Matthew Hendley, *Arizona Hemp-Farming Bill Voted Down by Senate Committee*, PHX. NEW TIMES BLOG (Feb. 19, 2014, 6:00 AM), http://blogs.phoenixnewtimes.com/valleyfever/2014/02/arizona_hemp-farming_bill_vote.php ("Arizona's Senate Judiciary Committee voted against a bill that would allow industrial hemp farming in the state.").

36. In early 2015, State Senator Lynne Pancrazi introduced a bill that would have established a committee to study the economic prospects for industrial hemp production in Arizona. See S. 1225, 52d Leg., 1st Reg. Sess. (Ariz. 2015); see also Travis Arbon, *Interest in Hemp Grows at Arizona Legislature; Senate Passes Study Committee Bill*, PHX. BUS. J. (Mar. 17, 2015, 7:25 AM), <http://www.bizjournals.com/phoenix/news/2015/03/16/interest-in-hemp-grows-at-arizona-legislature.html>. Even this modest proposal failed, as at least one observer had predicted. See, e.g., Maria Inés Taracena, *Hemp Time: State Lawmaker Is Interested in Growing Industrial Hemp in Arizona*, TUCSON WEEKLY (Feb. 5, 2015), <http://www.tucsonweekly.com/tucson/hemp-time/Content?oid=4914238> (asserting that the bill would "likely not survive . . . in our very conservative state legislature"). However, Senator Pancrazi's bill did garner the support of the Arizona Farm Bureau. See *Hearing on S.B. 1225 Before the S. Comm. On Nat. Res.*, 52d Leg., 1st Reg. Sess. 3 (Ariz. 2015) (noting testimony of Joe Sigg, Dir. of Gov't Relations, Ariz. Farm Bureau).

37. *Pederson v. Bennett*, 288 P.3d 760, 762 (Ariz. 2012); see ARIZ. CONST. art. 4, pt. 1, § 1; see also *Transp. Infrastructure Moving Ariz. Econ. v. Brewer*, 196 P.3d 229, 230 (Ariz. 2008) ("Our constitution reserves to the people the legislative power of initiative. That right is exercised by filing an initiative petition with the Secretary of State not less than four months before the date of a general election."); see ARIZ. CONST. art. 4, pt. 1 §§ 1(2), (4). For a com-

tential means of legalizing industrial hemp.³⁸ In late 2014, an entity identifying itself as “HOW Arizona”³⁹ informed the Arizona Secretary of State of its intent to gather the signatures necessary to place an industrial hemp initiative on the ballot for consideration by the voters in the 2016 general election.⁴⁰ If this measure qualifies for the ballot⁴¹ and ultimately is approved by the voters,⁴² it would

prehensive discussion of Arizona’s initiative process, see Lisa T. Hauser, *The Powers of Initiative and Referendum: Keeping the Arizona Constitution’s Promise of Direct Democracy*, 44 ARIZ. ST. L.J. 567 (2012).

38. Cf. John Dinan, *Policy Provisions in State Constitutions: The Standards and Practice of State Constitution-Making in the Post-Baker v. Carr Era*, 60 WAYNE L. REV. 155, 189 (2014) (“[L]egislative resistance to marijuana decriminalization policies in the late 1990s and early 2000s led supporters to resort to the initiative process on a number of occasions.”). However, some voter-initiated efforts to legalize industrial hemp have been unsuccessful. See, e.g., O’Hear, *supra* note 14, at 836 (noting that South Dakota voters rejected an initiative in 2002 that “sought to legalize ‘industrial hemp’ with a THC content of 1 percent or less”); UNIV. OF CAL., HASTINGS COLL. OF THE LAW, UC HASTINGS SCHOLARSHIP REPOSITORY, INDUSTRIAL USE OF HEMP (MARIJUANA) (1997), http://repository.uchastings.edu/cgi/viewcontent.cgi?article=1941&context=ca_ballot_inits (in 1997, an initiative for industrial use of hemp failed to qualify for the ballot).

39. See Application for Initiative or Referendum Petition Serial Number, No. I-04-2016 (Ariz. Sec’y of State Dec. 18, 2014).

40. See generally *id.* Marijuana legalization advocates also are gearing up for a ballot initiative in 2016 that would seek voters’ approval for full legalization modeled after Colorado’s law that allows adults 21 and over to carry 1 ounce of marijuana. Ken Alltucker, *Arizona on a Roll With Pot-Growing Permits*, ARIZ. REPUBLIC, Mar. 22, 2015, at A6. The implications of the latter initiative are beyond the scope of this article. However, some observers “see the push for industrial hemp as a cover for legalizing marijuana.” Susan David Dwyer, Note, *The Hemp Controversy: Can Industrial Hemp Save Kentucky?*, 86 KY. L.J. 1143, 1180 (1998); see also Thomas Richard Poole, Note, *Silly Rabbit, Farm Subsidies Don’t Help America*, 31 WM. & MARY ENVTL. L. & POL’Y REV. 183, 208-09 (2006) (“[S]ome would argue that legalizing industrial hemp is just one step in the overall campaign to legalize the drug variety of marijuana.”). For an assessment of Colorado’s legalization of marijuana and industrial hemp, see David Blake & Jack Finlaw, *Marijuana Legalization in Colorado: Learned Lessons*, 8 HARV. L. & POL’Y REV. 359 (2014).

41. In order for an initiative measure to be placed on the ballot, its proponents must obtain “the signatures of qualified electors equal to or exceeding ten percent of the votes cast for all candidates for governor at the general election last preceding the filing of the petition[.]” *Iman v. Bolin*, 404 P.2d 705, 708 (Ariz. 1965) (summarizing ARIZ. CONST. art. IV, pt. 1, § 1(2), (7)). The task can be daunting. See Joseph Kanefield, *Election Law in Arizona*, 43 ARIZ. ATT’Y 10, 14 (Nov. 2006) (“[I]t is no easy task to qualify one of these measures for the ballot. Tens of thousands of signatures must be gathered at a high cost of time and money. There is also the risk that this effort could be cut short by a legal snag.”). In this instance, Hemp Our World Arizona “needs 150,642 valid signatures on petitions by July 7, 2016 to put [its initiative measure] on the general election ballot that year.” Howard Fischer, *Initiative Measure Seeks Voter Approval to Allow Farmers to Grow Industrial Hemp*, VERDE INDEP. (Dec. 20, 2014),

authorize, as a matter of state law,⁴³ the cultivation of industrial hemp for both research and commercial purposes.⁴⁴

B. Unenacted 2001 Legislation

In considering the pending initiative's viability,⁴⁵ it is useful to note that the Arizona legislature nearly legalized the cultivation of industrial hemp for research purposes in 2001,⁴⁶ not long after North Dakota became the first state in

<http://verdenews.com/print.asp?SectionID=1&SubsectionID=1&ArticleID=63726> [hereinafter Fischer, *Initiative Measure*].

42. An initiative measure that has qualified for the ballot in Arizona becomes law if “approved by a majority of the votes cast thereon[.]” ARIZ. CONST. art. IV, pt. 1, § 1(6); *see also* Soto v. Superior Ct., 949 P.2d 539, 541 (Ariz. Ct. App. 1998) (discussing ARIZ. CONST. art. IV, pt. 1, § 1(13)). Obtaining such approval is also no easy task. *See* Justin Henderson, Comment, *The Tyranny of the Minority: Is It Time to Jettison Ballot Initiatives in Arizona?*, 39 ARIZ. ST. L.J. 963, 969-70 (2007) (“Simply getting a measure on the ballot is only the first hurdle that must be cleared Lack of funding can sound the death knell for a ballot initiative, because massive advertising campaigns can be critical to success.”).

43. Once approved, initiative measures “are as much ‘law’ as those enacted by the legislature.” *Iman v. S. Pac. Co.*, 435 P.2d 851, 855 (Ariz. Ct. App. 1968). However, like laws enacted by the state legislature, “a state initiative cannot overrule federal laws.” *United States v. Epis*, 332 F. App’x 409, 412 (9th Cir. 2009) (internal punctuation omitted); *cf.* *Rosette, Inc. v. United States*, 169 P.3d 704, 721 (N.M. Ct. App. 2007) (“[T]here is no basis for concluding that a state statute could trump federal law.”).

44. *See* Mike Sunnocks, *Measure Would Legalize Hemp Farming in Arizona*, PHX. BUS. J. (Dec. 22, 2014, 2:58 PM), <http://www.bizjournals.com/phoenix/news/2014/12/22/measure-would-legalize-hemp-farming-in-arizona.html> (“[The initiative measure] would allow for industrial hemp farming in the state by permitted and regulated producers. It would allow for hemp farming research grants to [be] administered by the Arizona Department of Agriculture.”).

45. One perceived advantage of attempting to legalize industrial hemp through the initiative process is that initiatives face no risk of gubernatorial veto. *See* ARIZ. CONST. art. IV, pt. 1, § 1(6)(A) (“The veto power of the governor shall not extend to an initiative measure approved by a majority of the votes cast thereon”). One commentator noted this distinction in observing that the “viability of an end-run around the legislature via initiative might make the process more attractive in Arizona than other states.” Henderson, *supra* note 42, at 970. However, not everyone views the veto-proof nature of initiatives as a benefit of the initiative process. *See, e.g.*, Elizabeth Garrett & Matthew D. McCubbins, *The Dual Path Initiative Framework*, 80 S. CAL. L. REV. 299, 328 n.70 (2007) (“[T]he legislative process provides checks and balances – including the executive’s veto power – that the initiative process simply lacks.”).

46. *See* Howard Fischer, *Lawmakers Push Bill to Allow Hemp Farming in Arizona*, ARIZ. DAILY SUN (Jan. 28, 2014, 3:30 AM), http://azdailysun.com/news/local/state-and-regional/lawmakers-push-bill-to-allow-hemp-farming-in-arizona/article_4dfd6384-87dd-11e3-a99d-001a4bcf887a.html (“The Legislature actually approved a measure in 2001 to allow the state’s three universities [to] study whether hemp production makes sense in Arizo-

more than six decades to legalize hemp production at the state level.⁴⁷ Rather than legalizing the commercial production of hemp as North Dakota had done,⁴⁸ the proposed Arizona legislation, known as Senate Bill 1519,⁴⁹ merely would have enabled the state's public universities "to conduct publicly and privately funded research on industrial hemp oriented . . . to the evaluation of its ultimate regulation sufficient for growth in Arizona."⁵⁰

In a letter to the state legislature supporting the bill, Dr. Richard Gordon, Professor Emeritus at Arizona State University, indicated that the university's School of Agribusiness and Resource Management had "the facility, staff and personnel to give this project the full quality of attention it deserves, and to coordinate . . . any research being done at other Arizona universities."⁵¹ Dr. Gordon also indicated that his review of the available literature led him to conclude that the research contemplated by the bill "should be undertaken as soon as practical," and he offered to oversee that research in order to "insure top quality results."⁵²

na.") [hereinafter Fischer, *Lawmakers Push Bill*]. The ultimately unsuccessful 2001 legislative effort is recounted in fragmentary form in TIM CASTLEMAN, "DITCH WEED": ONE SIGNATURE AWAY FROM LEGAL HEMP IN ARIZONA (2006).

47. See Christine A. Kolosov, Comment, *Evaluating The Public Interest: Regulation of Industrial Hemp Under the Controlled Substances Act*, 57 UCLA L. REV. 237, 247 (2009) ("In 1999, North Dakota became the first state to authorize and create a licensing scheme for industrial hemp production."); Lash, *supra* note 1, at 326 ("In 1999, North Dakota became the first state since 1937 to legalize and set guidelines for cultivation of industrial hemp.")

48. See *Monson v. DEA*, 589 F.3d 952, 957 (8th Cir. 2009) ("In 1999, the North Dakota Legislative Assembly legalized the growth, possession, and sale of 'industrial hemp.'"); see also N.D. CENT. CODE § 4-41-01 (2015).

49. S. 1519, 45th Leg., 1st Reg. Sess. (Ariz. 2001).

50. CASTLEMAN, *supra* note 46, at 8. By "excluding industrial hemp from the statutory definition of marijuana," an early draft of Senate Bill 1519 would have "legalize[d] industrial hemp in Arizona." *Hearing on S.B. 1519 Before the S. Comm. on Nat. Res., Agric. & Env't*, 45th Leg., 1st Reg. Sess. (Ariz. 2001) (statement of Susan Anable, Senior Research Director). However, this provision was "stripped . . . out of the bill" during the legislative process. *Senate Committee Rejects Legal Hemp, But Would Let ASU Study Uses*, ARIZ. DAILY WILDCAT ONLINE (Mar. 9, 2001), http://wc.arizona.edu/papers/94/116/01_95_m.html.

51. Letter from Dr. Richard Gordon, Professor Emeritus, Ariz. State Univ., to both Houses of the Arizona Legislature, and Appropriate Committees Therein (March 12, 2001), reprinted in CASTLEMAN, *supra* note 46, at 7 [hereinafter Letter From Dr. Richard Gordon].

[T]he Morrison School of AgriBusiness would be ideal to head up the study because it has a marketing division and needs a good project. The University of Arizona is needed to actually grow the product because it has fields in the Maricopa Extension, and Northern Arizona University should be involved because of the higher climate.

Hearing on S.B. 1431 Before the H. Comm. On Educ., 45th Leg., 2d Sess. (Ariz. 2001) (statement of Tim Castleman, Arizona Industrial Hemp Council).

52. Letter from Dr. Richard Gordon, *supra* note 51; cf. Fortenbery & Bennett, *supra* note

With the support of Dr. Gordon and others in the Arizona academic community,⁵³ hemp advocates ultimately persuaded the legislature to pass Senate Bill 1519.⁵⁴ The bill, which would have authorized any of the state's three public universities to study the feasibility of industrial hemp production,⁵⁵ was sent to Governor Jane Hull for signature on April 20, 2001.⁵⁶ To the dismay of its proponents,⁵⁷ Governor Hull vetoed the bill.⁵⁸ In a letter to the President of the Arizona Senate explaining her veto,⁵⁹ the governor cited legislative hearing testimony suggesting that conducting the research provided for in the bill might put university representatives "in the position of violating both federal and state laws against the possession and production of cannabis, which includes hemp."⁶⁰

With respect to the bill's alleged conflict with other state laws,⁶¹ Governor Hull explained that "grow[ing] varieties of cannabis plants . . . may be in viola-

10, at 116 ("The greatest research need for the commercialization of hemp appears to be in the development of harvesting and processing technology.").

53. See CASTLEMAN, *supra* note 46, at 4 (asserting that proponents of Senate Bill 1519 received "support from . . . the University system"); *Hearing on S.B. 1431 Before the H. Comm. on Educ.*, 45th Leg., 2d Sess. (Ariz. 2001) (statement of Robert Bogatin, Arizona Industrial Hemp Council) (asserting that "faculty and students wish[ed] to pursue this project").

54. See CASTLEMAN, *supra* note 46, at 45; Fischer, *Lawmakers Push Bill*, *supra* note 46.

55. S. 1519, 45th Leg., 1st Reg. Sess. § 1(A) (Ariz. 2001) ("Any university under the jurisdiction of the Arizona board of regents may study the feasibility and desirability of industrial hemp production in this state.").

56. CASTLEMAN, *supra* note 46, at 4, 45.

57. See, e.g., *id.* at 4 (characterizing Governor Hull's veto of Senate Bill 1519 as "mindless").

58. See *Hearing on S.B. 1431 Before the H. Comm. on Educ.*, 45th Leg., 2d Sess. (Ariz. 2001) (testimony of Senator Darden Hamilton, Sponsor); CASTLEMAN, *supra* note 46, at 4, 61-63.

59. Governor Hull sent a similar explanatory letter to proponents of the bill shortly after informing the Senate President of her veto. See Letter from Jane Dee Hull, Governor, State of Ariz., to Ariz. Hemp Council (Apr. 28, 2001), *reprinted in* CASTLEMAN, *supra* note 46, at 61.

60. Letter from Jane Dee Hull, Governor, State of Ariz., to Randall Gnant, President, Ariz. State Senate (Apr. 25, 2001), *reprinted in* 2001 ARIZ. SESS. LAWS 2233 [hereinafter Letter to Randall Gnant]; *cf.* State v. Reis, 322 P.3d 1238, 1243 n.13 (Wash. Ct. App. 2014) (discussing a veto of medical marijuana legislation that would have required state employees "to violate federal criminal law and expose them to federal prosecution"). See generally Tara Christine Brady, Comment, *The Argument for the Legalization of Industrial Hemp*, 13 SAN JOAQUIN AGRIC. L. REV. 85, 108 (2003) (asserting that "universities . . . are hesitant to grow a crop that the Federal Government deems illegal").

61. See Fact Sheet, S. 1519, 45th Leg., 1st Reg. Sess., at 1 (Ariz. 2001) ("[H]emp is currently an illegal substance under Arizona drug laws."); Kelly Lotz, *Legislature Proposes Legalizing Privately Funded Hemp Research*, ARIZ. DAILY WILDCAT ONLINE, (Apr. 9, 2002), http://wc.arizona.edu/papers/95/133/01_3.html ("Hemp . . . is illegal under Arizona's drug laws.").

tion of . . . Arizona's Title 13 criminal statutes."⁶² This concern seems unwarranted.⁶³ Like the laws of most other states,⁶⁴ Arizona statutes make the production of marijuana a criminal offense,⁶⁵ and define such production to encompass the cultivation⁶⁶ of "any plant of the genus cannabis,"⁶⁷ including industrial hemp.⁶⁸ Hemp cultivation also is effectively prohibited by the Arizona legislature's classification of all cannabis "except the synthetic isomer of delta-9-tetrahydrocannabinol"⁶⁹ as a Schedule I controlled substance.⁷⁰ In Arizona,

62. Letter to Randall Gnant, *supra* note 60.

63. CASTLEMAN, *supra* note 46, at 62-63; Letter from Tim Castleman, President, Ariz. Indus. Hemp Council, to The Honorable Jane Hull, Governor, State of Ariz. (Apr. 30, 2001) ("[T]he statute that would be created by this bill is . . . what is needed for a state university to . . . perform [industrial hemp] studies *without violating state law* . . .") (emphasis added); *cf.* City of Bisbee v. Cochise Cnty., 36 P.2d 559, 562 (Ariz. 1934) ("It is the universal rule of statutory construction that when a subsequent act of the legislature is in conflict with a prior act, it by implication repeals so much of the prior act as is in conflict with the latter law.").

64. See Robert A. Mikos, *On the Limits of Supremacy: Medical Marijuana and the States' Overlooked Power to Legalize Federal Crime*, 62 VAND. L. REV. 1421, 1427 (2009) ("Since the 1930s, every state has banned the cultivation, distribution and possession of marijuana for non-medical purposes. In most cases, a violation of one of these bans constitutes a criminal offense.").

65. State v. White, 701 P.2d 1230, 1233 (Ariz. Ct. App. 1985) (discussing Arizona Revised Statutes Annotated section 13-3405). The Navajo Nation, whose tribal lands are located largely within Arizona's borders, also prohibits the production of marijuana. NAVAJO NATION CODE ANN. tit., 17 § 392(a) (2015). However, the Navajos exclude industrial hemp from this prohibition by defining marijuana as "those Cannabis plants that contain an amount equal to or more than one and four-tenths percent (1.4%) tetrahydrocannabinol." *Id.* § 390(b). Industrial hemp test plots reportedly "were planted on Navajo land in March 1996," five years before the Arizona legislature passed – and Governor Hull vetoed – Senate Bill 1519. DENNIS PROUTY, IOWA LEGIS. FISCAL BUREAU, ISSUE REVIEW: INDUSTRIAL HEMP 3 (1998); see also Lash, *supra* note 1, at 326-27 ("States are not the only governments interested in revitalizing industrial hemp cultivation. Tribal governments are also interested in industrial hemp production and the potential economic benefits that hemp would bring to their people and their tribal economy.").

66. "Produce" is statutorily defined to mean "grow, plant, cultivate, harvest, dry, process or prepare for sale." ARIZ. REV. STAT. ANN. § 13-3401.29 (2015); see also White, 701 P.2d at 1233.

67. ARIZ. REV. STAT. ANN. § 13-3401.19; *cf.* State v. Rios, 592 P.2d 1299, 1302 (Ariz. Ct. App. 1979) (rejecting the contention "that 'marijuana' is restricted to the leaves of the sativa plant to the exclusion of other species of cannabis").

68. See S.B. 1519, 45th Leg., 1st Reg. Sess. (Ariz. 2001) ("Hemp is a variety of the cannabis plant . . ."). Arizona's statutory definition of marijuana effectively prohibits "growing plants of cannabis sativa L. . . . without distinction as to their content of active compounds." State v. Anderson, 489 P.2d 722, 725 (Ariz. Ct. App. 1971).

69. ARIZ. REV. STAT. ANN. § 36-2512.A.3(w) (2015). The exception refers to dronabinol, a synthetic form of THC that can be prescribed by physicians when dispensed and sold under the trade name Marinol. See Unimed, Inc. v. Quigg, 888 F.2d 826, 827 (Fed. Cir.

Schedule I controlled substances can be lawfully manufactured (*i.e.*, grown or cultivated)⁷¹ only by “a registrant under the federal controlled substances act,”⁷² and there were (and still are)⁷³ no such registrants in Arizona.⁷⁴ Nevertheless, the Arizona legislature undoubtedly intended by its enactment of Senate Bill 1519 to immunize university researchers from prosecution under these laws,⁷⁵ although it

1989); *Kuromiya v. United States*, 37 F. Supp. 2d 717, 728 n.11 (E.D. Pa. 1999). Like marijuana, dronabinol originally was (and generally continues to be) classified as a Schedule I controlled substance under the CSA. *John Doe, Inc. v. DEA*, 484 F.3d 561, 563 (D.C. Cir. 2007). However, the specific form of dronabinol marketed as Marinol has been rescheduled, initially as a Schedule II and ultimately as a Schedule III controlled substance. *See John Doe, Inc.*, 484 F.3d at 564; *Novelty Distribs., Inc. v. Leonhart*, 562 F. Supp. 2d 20, 25 (D.D.C. 2008) (“thereby reducing the restrictions on its production and distribution”); Schedule III, 21 C.F.R. § 1308.13(g)(1) (2015); *see also Kuromiya*, 37 F. Supp. 2d at 728 n.11. Dronabinol, as an FDA approved drug, is classified as a Schedule III controlled substance under Arizona law. *See ARIZ. REV. STAT. ANN.* § 36-2514.A.7.

70. *See ARIZ. REV. STAT. ANN.* § 36-2512; *State v. Cramer*, 851 P.2d 147, 149 (Ariz. 1993) (noting that the Arizona legislature “classified cannabis (marijuana) as a Schedule I controlled substance”).

71. *See United States v. 5 Reynolds Lane*, 895 F. Supp. 2d 305, 315 (D. Conn. 2012) (“‘To manufacture’ marijuana means, in more common parlance, to grow and cultivate marijuana plants.”); *Maness v. State*, 593 S.E.2d 698, 700 (Ga. Ct. App. 2004) (“[I]t is unlawful for any person to manufacture any controlled substance. Cultivating or planting marijuana is a violation.”).

72. *ARIZ. REV. STAT. ANN.* § 36-2522.A.2. The reference to a federal registrant reflects the fact that “[u]nder the CSA, any person seeking to manufacture a Schedule I controlled substance must obtain a registration” from the Drug Enforcement Administration, or DEA. *Monson v. DEA*, 589 F.3d 952, 956 (8th Cir. 2009) (discussing 21 U.S.C. §§ 822-23 (2006)); *cf. Breeser v. Menta Group, Inc.*, No. 2:10-CV-01592-PHX-JAT, 2011 WL 1465523, at *3 (D. Ariz. Apr. 18, 2011) (“Arizona law requires *any person* who dispenses *any* controlled substance . . . to be a registrant under the federal Controlled Substances Act.”).

73. *See JOHNSON*, *supra* note 7, at 12 (“No active federal licenses allow U.S. commercial cultivation at this time.”); *cf. Craker v. DEA*, 714 F.3d 17, 20 (1st Cir. 2013) (“Since 1968, the National Center for Natural Products Research (‘NCNPR’) at the University of Mississippi has held a government contract to grow marijuana for research purposes The NCNPR is the only entity registered by the DEA to manufacture marijuana.”).

74. *See Hearing on S.B. 1431 Before the H. Comm. on Educ.*, 45th Leg., 2d Sess. (Ariz. 2001) (testimony of Robert Bogatin, Arizona Industrial Hemp Council) (“The State of Hawaii has the only Drug Enforcement Agency [sic] (DEA)-sanctioned crop, which is one-quarter acre.”); *Wyatt*, *supra* note 22 (“The 1970 Controlled Substances Act required hemp growers to get a permit from the DEA, the last of which was issued in 1999 for a quarter-acre experimental plot in Hawaii.”).

75. *See Brady*, *supra* note 60, at 108 (asserting that industrial hemp laws “should provide an exemption to criminal prosecution if the industrial hemp is grown under the guidelines set forth in the legislation”). This conclusion is consistent with the prevailing interpretation of the Arizona Medical Marijuana Act (“AMMA”), Arizona Revised Statutes Annotated sections 36-2801 to 36-2819, and other state medical marijuana laws. *See United States v. Landa*, 281

undoubtedly could have been more explicit in expressing that intention.⁷⁶

The bill's potential conflict with federal law was more problematic.⁷⁷ Neither the Arizona legislature nor the legislature of any other state can immunize individuals from prosecution for violating federal laws,⁷⁸ including the CSA's prohibition of the cultivation, use or possession of marijuana⁷⁹ (and therefore, by definition, industrial hemp).⁸⁰ As Washington Governor Christine Gregoire explained in vetoing proposed amendments to that state's medical marijuana laws:

F. Supp. 2d 1139, 1143 (N.D. Cal 2003) (noting that the "possession and cultivation of marijuana have been immunized from state prosecution" for authorized medical marijuana users in California); Reed-Kaliher v. Hoggatt, 332 P.3d 587, 589 (Ariz. Ct. App. 2014) (holding that the AMMA provides "immunity from state prosecution for medical use of marijuana"), *aff'd*, 347 P.3d 136 (Ariz. 2015).

76. Cf. KY. REV. STAT. ANN. § 260.853(6)(a) (West 2015) ("The research activities outlined in . . . this section shall not . . . [s]ubject the industrial hemp research program to any criminal liability under the controlled substances laws of the Commonwealth."); W. VA. CODE § 19-12E-9(a) (2015) ("It is a complete defense to a prosecution for the possession or cultivation of marijuana pursuant to the provisions of . . . this code that defendant was growing industrial hemp pursuant to the provisions of this article.").

77. See Op. S.C. Att'y Gen., 2014 WL 7505274, at *5 (Dec. 23, 2014) ("[S]tate statutes permitting the cultivation of industrial hemp have been widely understood as conflicting with federal law . . ."); cf. Dwight L. Pringle, *Advising Clients Who Want to Grow Hemp*, 43 COLO. LAW. 71, 75 (July 2014) ("Until Congress resolves the conflicts between state and federal law legislatively, the [industrial hemp] industry is unlikely to reach its full potential.").

78. See, e.g., Prod. Credit Ass'n of Redwood Falls v. Good, 228 N.W.2d 574, 579 n.7 (Minn. 1975) (noting that "the State of Minnesota has no power to immunize a person against Federal prosecution"); cf. Tracy v. Superior Ct., 810 P.2d 1030, 1049 (Ariz. 1991) ("Obviously, one jurisdiction may not grant immunity . . . in another jurisdiction."). See generally United States v. Interborough Delicatessen Dealers Ass'n, 235 F. Supp. 230, 231 (S.D.N.Y. 1964) ("Although the federal government may, under the Supremacy Clause, grant immunity from state prosecution, a state may not unilaterally extend an immunity from federal prosecution.").

79. See Ter Beek v. City of Wyo., 846 N.W.2d 531, 539 (Mich. 2014) (observing that state law immunity does not "alter the CSA's federal criminalization of marijuana, or . . . interfere with or undermine federal enforcement of that prohibition"); Helia Garrido Hull, *Lost in the Weeds of Pot Law: The Role of Legal Ethics in the Movement to Legalize Marijuana*, 119 PENN ST. L. REV. 333, 346 (2014) ("[T]hose who act pursuant to state authorizations are not immune from federal prosecutions for violations of the CSA."); Letter from Ann Birmingham Scheel, Acting U.S. Attorney, Dist. of Ariz., to Janice K. Brewer, Governor, State of Ariz. 1 (Feb. 16, 2012) (on file with author) ("[C]ompliance with . . . Arizona regulations will not provide . . . immunity from federal prosecution for anyone involved in the cultivation or distribution of marijuana.").

80. See Monson v. DEA, 522 F. Supp. 2d 1188, 1199 (D.N.D. 2007) ("Cannabis plants grown for industrial purposes and containing lower THC concentrations are 'marijuana' within the meaning of the Controlled Substances Act."), *aff'd*, 589 F.3d 952 (8th Cir. 2009); Tim Weber, Note, *Would Government Prohibition of Marijuana Pass Strict Scrutiny?*, 46 IND. L. REV. 529, 556 (2013) (noting that "the current federal prohibition of marijuana also prohibits growing industrial hemp").

[A] state legislature may remove state criminal and civil penalties for [certain] activities While such activities may violate the federal Controlled Substances Act, states are not required to enforce federal law or prosecute people for engaging in activities prohibited by federal law. However, absent congressional action, state laws will not protect an individual from legal action by the federal government.⁸¹

III. FEDERAL OPPOSITION TO INDUSTRIAL HEMP

A. *The DEA's Regulation of Hemp*

As Governor Hull recognized,⁸² Senate Bill 1519's conflict with federal law stemmed from Congress's inclusion of all varieties of the cannabis plant, including industrial hemp, within the CSA's definition of marijuana.⁸³ Marijuana is a Schedule I controlled substance under the CSA,⁸⁴ and therefore essentially unlawful to produce,⁸⁵ regardless of whether such production is authorized under state law.⁸⁶ Although its primary objective in classifying marijuana as a Sched-

81. Letter from Christine O. Gregoire, Governor, State of Wash., to the Honorable President and Members, Senate of the State of Wash. 1 (Apr. 29, 2011), *reprinted in* 2011 WASH. SESS. LAWS 1374-76.

82. Letter to Randall Grant, *supra* note 60 (“[T]o possess and grow varieties of cannabis plants . . . may be in violation of the federal Controlled Substances Act . . .”).

83. *See Olsen v. Holder*, 610 F. Supp. 2d 985, 994 (S.D. Iowa 2009) (noting that “farmers could be prosecuted for growing industrial hemp . . . because industrial hemp [falls] squarely within the definition of marijuana in the CSA”); Aaron Roussell, *The Forensic Definition of Marijuana: Suspicion, Moral Danger, and the Creation of Non-Psychoactive THC*, 22 ALB. L.J. SCI. & TECH. 103, 116 (2012) (“[A]ll of the variants of Cannabis are contained within the legal definition set forth in the CSA, including hemp.”).

84. *See* 21 U.S.C. § 812 (2012); *Dobson v. McClennan*, 337 P.3d 568, 573 (Ariz. Ct. App. 2014); *see also Raich v. Gonzales*, 500 F.3d 850, 865 (9th Cir. 2007) (“Congress placed marijuana on Schedule I of the Controlled Substances Act, taking it outside of the realm of all uses . . . under federal law.”). For a comprehensive discussion of marijuana's classification, *see Annaliese Smith, Comment, Marijuana as a Schedule I Substance: Political Ploy or Accepted Science*, 40 SANTA CLARA L. REV. 1137 (2000).

85. *See State v. Norris*, 211 P.3d 36, 39 (Ariz. Ct. App. 2009) (“Section 841(a)(1) [of the CSA] is a broad disjunctive provision making it unlawful for a person knowingly ‘to manufacture . . . a controlled substance.’”); *Ter Beek*, 846 N.W.2d at 536 (“The CSA classifies marijuana as a Schedule I controlled substance, and thus largely prohibits its manufacture, distribution, or possession.”); *see also* 21 U.S.C. § 812(c)(12).

86. *See In re Medpoint Mgmt., LLC*, 528 B.R. 178, 185 (Bankr. D. Ariz. 2015) (“Persons who are in the business of cultivating, selling or distributing marijuana . . . are in violation of the Controlled Substances Act, regardless of state law.”); Memorandum from James M. Cole, Deputy Att’y General, U.S. Dep’t of Justice, to U.S. Att’ys 2 (June 29, 2011); *cf. Emerald Steel Fabricators, Inc. v. Bureau of Labor & Indus.*, 230 P.3d 518, 529 (Or. 2010) (“[S]tate law does not prevent the federal government from enforcing its marijuana laws . . . if

ule I substance was to curb the cultivation, distribution, and use of cannabis as a drug,⁸⁷ Congress (perhaps unintentionally)⁸⁸ defined marijuana broadly enough to encompass all cannabis plants regardless of their intended use.⁸⁹

Technically, the CSA “does not make growing hemp illegal; rather, it places strict controls on the production of hemp, making it illegal to grow the crop without a [federal] permit” from the Drug Enforcement Administration, or “DEA.”⁹⁰ Thus, at least in theory, university researchers cultivating industrial hemp pursuant to Arizona Senate Bill 1519 could have avoided the risk of federal prosecution by obtaining the DEA’s approval of their activities,⁹¹ as proponents of the bill were quick to point out upon being apprised of the governor’s veto.⁹²

However, in a news release issued three years earlier, the DEA reported that it had never granted “any registrations for the cultivation of marijuana for

the federal government chooses to do so.”).

87. See *United States v. Sanapaw*, 366 F.3d 492, 495 (7th Cir. 2004) (“The legislative history of the Act indicates that the purpose of banning marijuana was to ban the euphoric effects produced by THC.”); *United States v. Johnson*, 333 A.2d 393, 394-95 (D.C. 1975) (“[T]he legislative history makes clear that (a) there was a Congressional concern over the effect on humans of a chemical (THC) contained in and extracted from the cannabis plant and (b) a Congressional determination to ban its manufacture, use and possession.”).

88. See *New Hampshire Hemp Council v. Marshall*, 203 F.3d 1, 7 (1st Cir. 2000) (“[W]e can find no indication that Congress in 1970 gave any thought to how its new statutory scheme would affect . . . production [for industrial uses].”).

89. See *Monson v. DEA*, 522 F. Supp. 2d 1118 (D.N.D. 2007) (noting that “industrial hemp is regulated under federal law as ‘marijuana,’ a Schedule I controlled substance”), *aff’d*, 589 F.3d 952 (8th Cir. 2009); *Ariz. Fact Sheet*, S. 1519, 45th Leg., 1st Reg. Sess., at 1 (*Ariz.* 2001) (“Hemp . . . is regulated under the Federal Controlled Substance Act as a Schedule I drug.”); *JOHNSON*, *supra* note 7, at 13 (“The statute . . . retains control over all varieties of the cannabis plant by virtue of including them under the term ‘marijuana’ and does not distinguish between low- and high-THC varieties.”).

90. *JOHNSON*, *supra* note 7, at 13; see also *Cowan*, *supra* note 24, at 26 (noting that hemp “is illegal to grow in the United States without special permission from the Drug Enforcement Administration”); *Pringle*, *supra* note 77, at 74 (“The CSA does not outlaw hemp production, but does require prospective growers to obtain the approval of the Drug Enforcement Administration (DEA) to do so.”).

91. See *Dwyer*, *supra* note 40, at 1168 (noting that “[p]otential growers can seek permits to grow industrial hemp from the DEA”); *Rogers*, *supra* note 1, at 486 (“Hemp farmers may seek a permit from the DEA directly in order to legally cultivate hemp.”).

92. *CASTLEMAN*, *supra* note 46, at 62-63.

In fact, there is an existing DEA permitting process already being used in a number of states to allow them to legally possess and study both marijuana and industrial hemp. And the statute that would be created by this bill is simply what is needed for a state university to . . . obtain such a permit from the federal government.

Id.

industrial purposes.”⁹³ Although the DEA subsequently issued a permit for a small industrial hemp research plot in Hawaii,⁹⁴ its opposition to industrial hemp remained essentially unabated when Governor Hull vetoed Senate Bill 1519.⁹⁵ In fact, the DEA continues to oppose any revitalization of the industrial hemp industry in this country;⁹⁶ a congressional research study issued in early 2015 noted that “[m]ost reports indicate that the DEA has not granted any current licenses to grow hemp, even for research purposes.”⁹⁷

In addition, “[o]btaining a DEA permit to produce hemp requires that the applicant demonstrate that an effective security protocol will be in place at the production site, such as security fencing around the planting area, a 24-hour monitoring system, controlled access, and possibly armed guard(s) to prevent public access.”⁹⁸ The cost of complying with these requirements makes the production of industrial hemp impracticable,⁹⁹ even if the DEA was inclined to issue permits

93. News Release, U.S. Drug Enf’t Admin., Statement from The Drug Enforcement Administration on The Industrial Use of Hemp (Mar. 12, 1998), <http://www.dea.gov/pubs/pressrel/pr980312.htm> [hereinafter Statement from DEA]; see also Fortenbery & Bennett, *supra* note 10, at 116 (“In the past, DEA has granted no registrations for the cultivation of hemp for industrial purposes . . .”).

94. See Brady, *supra* note 60, at 102 (“The DEA granted the state of Hawaii a license to grow industrial hemp in 1999.”); Kolosov, *supra* note 47, at 247 (noting that the DEA “issued one annual permit for a research plot in Hawaii intermittently between 1999 and 2003”); SMITH-HEISTERS, *supra* note 24, at 26 (“The first permit issued by the DEA in recent history was to the Hawaii Industrial Hemp Research Project in 1999.”).

95. The DEA did not issue another industrial hemp permit until several years after Governor Hull vetoed Senate Bill 1519, when it issued a permit “for a research plot at North Dakota State University . . . in November of 2007.” Kolosov, *supra* note 47, at 247. The application for this permit was pending for more than eight years before the DEA acted on it. See *Monson*, 522 F. Supp. 2d at 1197 (finding “no legitimate excuse for this unreasonable delay”), *aff’d*, 589 F.3d 952 (8th Cir. 2009). The DEA’s issuance of this second permit does not reflect a meaningful retreat from its long-standing opposition to industrial hemp. See Pringle, *supra* note 77, at 74 (“The DEA has not been particularly hemp-friendly, . . . and has issued only two permits, both to state universities.”).

96. See Rogers, *supra* note 1, at 486 (“The DEA has been resistant to attempts to revive industrial hemp cultivation . . .”); Anthony Serrao, *Chapter 398: The Highly-Regulated Hemp Marketplace – Economic Powerhouse or Law Enforcement Nightmare?*, 45 MCGEORGE L. Rev. 495, 496 (2014) (noting that “state efforts in recent years for more pro-hemp legislation . . . have prompted stiff federal resistance”).

97. JOHNSON, *supra* note 7, at 14; cf. Lash, *supra* note 1, at 323 (“[I]n almost every instance the DEA refuses to grant permits for industrial hemp research or production.”).

98. JOHNSON, *supra* note 7, at 14-15; see also SMITH-HEISTERS, *supra* note 24, at 27 (“Permit holders can be required to maintain fencing, round-the-clock security guards, and alarm systems.”).

99. See SMITH-HEISTERS, *supra* note 24, at 27 (“Under current federal regulation, DEA-issued permits to grow Cannabis are subject to onerous security requirements that make the conduct of research unfeasible for all except police analytical laboratories.”); UNIV. OF KY

for such production.¹⁰⁰ In short, the purported ability of Arizona university researchers to avoid federal criminal prosecution by obtaining the DEA's permission to grow industrial hemp appears to have been far more theoretical than real.¹⁰¹

B. The DEA's Influence Over State Legalization Efforts

Not surprisingly,¹⁰² the DEA's opposition to industrial hemp has also impeded efforts to legalize its production in states other than Arizona.¹⁰³ In California, for example, Governor Gray Davis noted the DEA's opposition when he vetoed industrial hemp legislation the year after Governor Hull vetoed Arizona Senate Bill 1519.¹⁰⁴ Like its Arizona counterpart,¹⁰⁵ the California legislation

COLL. OF AGRIC. COOP. EXTENSION SERV., *INDUST. HEMP – LEGAL ISSUES 3* (Sept. 2012) (“[S]trict federal regulations and the high cost of complying with DEA security requirements currently make hemp production prohibitive, even at the research level.”).

100. See Rogers, *supra* note 1, at 486 (“[T]he DEA rarely issues permits and restricts them to almost entirely research purposes. Even at that, the procedures necessary to receive a permit are costly, deterring interested industrial hemp growers from cultivating hemp.”); Thedinger, *supra* note 17, at 439 (“When the DEA has considered issuing a hemp cultivation permit, it has required strict security measures . . .”).

101. See Lori Murphy, Note, *Enough Rope: Why United States v. White Plume Was Wrong on Hemp and Treaty Rights and What It Could Cost the Federal Government*, 35 AM. INDIAN L. REV. 767, 776 (2011) (“[T]he DEA requires a type of permit for industrial hemp that . . . the DEA does not, in practice, issue to would-be hemp growers who apply for it, creating a functional ban to regulatory compliance.”); Christen D. Shepherd, Comment, *Lethal Concentration of Power: How the D.E.A. Acts Improperly to Prohibit the Growth of Industrial Hemp*, 68 UMKC L. REV. 239, 240 (1999) (“[I]ndustrial hemp cannot be legally grown in the United States because the D.E.A. refuses to grant farmers and entrepreneurs the required permit . . .”).

102. See generally O’Hear, *supra* note 14, at 820 (“The federal government exercises influence over state and local policymaking through a complicated and diffuse set of tools. These tools seem particularly designed to advance the federal agenda by . . . encouraging local drug enforcement activities and building a politically powerful constituency for pro-federal policies.”).

103. See, e.g., *N.H. Hemp Council, Inc. v. Marshall*, 203 F.3d 1, 4 (1st Cir. 2000) (“[T]he DEA urged its own reading of the federal statute on the New Hampshire legislature to defeat, as fruitless, [an] effort to legalize ‘industrial hemp’ production under state law . . .”); see also Thedinger, *supra* note 17, at 437-38 (“The DEA’s suppression of hemp includes incidences of the agency’s involvement in state-level campaigns for the legalization of hemp. The DEA has stepped in and effectively used ‘scare tactics’ to discourage state legislatures from passing reasonable legislation.”).

104. See Veto Message – Assembly Bill No. 388 from Gray Davis, Governor, State of California, to Members of the California State Assembly (Sept. 15, 2002) (“There are a number of significant concerns regarding the legality of producing industrial hemp in the United States . . . [T]he Drug Enforcement Administration applies the same strict controls to industrial hemp as it does to marijuana. That is, it is a Schedule I Controlled Substance under Fed-

would have authorized state universities to cultivate industrial hemp “in order to study its viability as a cash crop.”¹⁰⁶ Current California Governor Jerry Brown and his immediate predecessor, Governor Arnold Schwarzenegger,¹⁰⁷ expressed similar concerns in vetoing subsequent industrial hemp bills,¹⁰⁸ even though Governor Brown (and perhaps Governor Schwarzenegger)¹⁰⁹ actually favored the legalization of industrial hemp,¹¹⁰ and Governor Brown ultimately signed legislation conditionally authorizing its production in California.¹¹¹

eral law.”).

105. *See* S. 1519, 45th Leg., 1st Reg. Sess. § 1(A) (Ariz. 2001); CASTLEMAN, *supra* note 46, at 8.

106. Brady, *supra* note 60, at 86 (discussing A.B. 388, 2001-02 Reg. Sess. (Cal. 2002)). *See generally* JOHNSON, *supra* note 7, at 22 (“Most [state industrial hemp measures] have been resolutions calling for scientific, economic, or environmental studies, and some are laws authorizing planting experimental plots under state statutes.”).

107. *See* Veto Message – Assembly Bill No. 684 from Arnold Schwarzenegger, Governor, State of Cal., to Members of the Cal. State Assembly (Oct. 11, 2007) [hereinafter Veto Message] (“I am very concerned that this bill would give legitimate growers a false sense of security and a belief that production of ‘industrial hemp’ is somehow a legal activity under federal law.”).

108. *See* Serrao, *supra* note 96, at 502 (“California governors had a history of citing conflicting federal law when vetoing hemp legislation.”).

109. *See* Veto Message, *supra* note 107 (“Our state has a rich agricultural environment and we must strive to protect and promote farming, ranching and agri-business in California, while preserving natural resources and protecting consumers. [¶] Given these facts, I would like to support the expansion of a new agricultural commodity in this State.”).

110. *See* Letter from Edmund G. Brown, Jr. to Members of the California State Senate (Oct. 9, 2011).

Governor Jerry Brown vetoed SB 676, the California Industrial Hemp Farming Act, stating “Federal law clearly establishes that all cannabis plants, including industrial hemp, are marijuana, which is a federally regulated controlled substance. Failure to obtain a permit from the U.S. Drug Enforcement Administration prior to growing such plants will subject a California farmer to federal prosecution Although I am not signing this measure, I do support a change in federal law.”

LYNN ROBBINS ET AL., UNIV. OF KY. DEP’T OF AGRIC. ECON., ECONOMIC CONSIDERATIONS FOR GROWING INDUSTRIAL HEMP: IMPLICATIONS FOR KENTUCKY’S FARMERS AND AGRICULTURAL ECONOMY 19 (2013).

111. *See* 97 Official Advance Sheets, Op. Cal. Att’y Gen. 21, 22 (2014) (“On September 27, 2013, the Governor signed the California Industrial Hemp Farming Act (Hemp Act”); Wyatt, *supra* note 22 (“Ten states now have industrial hemp laws . . . , including one signed by California Gov. Jerry Brown . . .”). The legislation signed by Governor Brown “provides that – *contingent upon federal authorization* – farmers and other individuals or entities in California may grow or cultivate industrial hemp for both commercial and research purposes.” 97 Official Advance Sheets, Op. Cal. Att’y Gen. at 25. For a comprehensive analysis of the California act, see Serrao, *supra* note 96 *passim*.

In addition, the Vermont General Assembly, which legalized the production of industrial hemp as a matter of state law in order to “accelerate economic growth and job creation, promote environmental stewardship, and expand export market opportunities,”¹¹² nevertheless cautioned potential growers that “until current federal law is amended to provide otherwise,” the

- (1) cultivation and possession of hemp in Vermont is a violation of the federal Controlled Substances Act; and
- (2) federal prosecution for growing hemp in violation of federal law may include criminal penalties, forfeiture of property, and loss of access to federal agricultural benefits, including agricultural loans, conservation programs, and insurance programs.¹¹³

Finally, several states, including California,¹¹⁴ have adopted industrial hemp statutes that are or will become operative only if hemp production is legalized—or otherwise authorized¹¹⁵—as a matter of federal law.¹¹⁶ These and other express or implied acknowledgments of the supremacy of federal law¹¹⁷ suggest that the enactment of Arizona Senate Bill 1519 would have been a futile exercise,¹¹⁸ and that Governor Hull properly vetoed the bill because it conflicted with

112. VT. STAT. ANN. tit. 6, § 561(a)(4) (2015). The Vermont General Assembly was one of the first state legislatures to consider the legalization of industrial hemp, having authorized a “feasibility study” in 1996. Rheingans, *supra* note 34, at 126 (discussing H.R. 783, 64th Leg., Adjourned Sess. (Vt. 1996)).

113. VT. STAT. ANN. tit. 6, § 564(b).

114. See CAL. FOOD & AGRIC. CODE § 81010 (West 2015); Official Advance Sheets 97, Op. Cal. Att’y Gen. at 22 (“The Hemp Act conditionally permits the growth and cultivation of industrial hemp in California . . . [T]he Legislature provided that the Hemp Act’s provisions ‘shall not become operative unless authorized by federal law’ – that is, by way of subsequent federal legislation.”).

115. See, e.g., MONT. CODE ANN. § 80-18-111(1)(b) (2015) (providing industrial hemp growers with “an affirmative defense to a prosecution for the possession or cultivation of marijuana” if they “had valid applicable controlled substances registrations” from the DEA); see also *Monson v. DEA*, 589 F.3d 952, 957 (8th Cir. 2009) (noting that North Dakota’s industrial hemp act “originally provided that any person seeking to grow industrial hemp in North Dakota was required to comply . . . with the CSA’s registration requirements”).

116. See ROBBINS ET AL., *supra* note 110, at 19 (“Nine states . . . have actually passed laws to establish a production and/or government oversight framework to enable hemp production to occur if the federal law is modified . . .”).

117. See *Gonzales v. Raich*, 545 U.S. 1, 29 (2005); *Vialpando v. Ben’s Auto. Servs.*, 331 P.3d 975, 979 (N.M. Ct. App. 2014) (“[T]he Supremacy Clause dictates that any conflict between [state law] and the CSA would be resolved in favor of the CSA.”); Cowan, *supra* note 24, at 26 (“The problem . . . legislators face is that the federal government prohibits [hemp’s] cultivation in the United States, and federal law takes precedence over state law.”).

118. Cf. KY. REV. STAT. ANN. § 260.865(3) (West 2015) (“If any part of [Kentucky’s industrial hemp statutes] conflicts with a provision of federal law relating to industrial hemp . . .

the CSA.¹¹⁹

IV. THE REASONING BEHIND THE FEDERAL OPPOSITION TO HEMP

A. *The DEA's Law Enforcement Concerns*

The DEA's principal explanation for its persistent refusal to authorize industrial hemp production, and the argument often advanced by other law enforcement agencies opposed to the legalization of hemp,¹²⁰ is that hemp production would impede efforts to curtail illegal drug activity.¹²¹ In this regard, the DEA has stated:

The Controlled Substances Act requires that a determination be made that any . . . production would be in the public interest. A prime consideration of the public interest rests with the threat of diversion associated with cultiva-

, the federal provision shall control to the extent of the conflict.”); ROBBINS ET AL., *supra* note 110, at 2 (“In 2001, a bill was passed into law [in Kentucky] to develop an industrial hemp research program But strict federal regulations and regulatory costs prohibited any university research trials evolving from this legislation.”).

119. See *Forest City Residential Mgmt., Inc. ex rel Plymouth Square Ltd. Dividend Housing Assoc. & Monroe Twp. Assoc. Ltd. v. Beasley*, 71 F. Supp. 3d 715, 727 (E.D. Mich. 2014) (stating that “a state law is ‘without effect’ when it conflicts with federal law”). Governor Hull was not the first state executive to veto industrial hemp legislation. Governor Arne Carlson had previously vetoed “a bill relating to the study of the production of industrial hemp” in Minnesota, citing the concerns of law enforcement agencies in that state and “at the national level.” Letter from Arne H. Carlson, Governor, State of Minn., to Allan H. Spear, President Minn. Senate (Apr. 21, 1998). Interestingly, a slightly amended version of the bill Governor Hull vetoed was reintroduced in the next legislative session. See S. 1431, 45th Leg., 2d Reg. Sess. (Ariz. 2002). The revised bill ultimately died in the legislature, reportedly due to opposition from law enforcement groups. See MARI KANE, *THE STATE OF HEMP IN AMERICA TODAY: STATE LEGISLATIVE ACTION BUILDS, THE VOTE HEMP REPORT 8* (2002/2003).

120. See, e.g., Letter from Dennis J. Flaherty, Exec. Dir., Minn. Police & Peace Officers Ass’n, to Anthony Cortilet, Minn. Dep’t of Agric. (Oct. 29, 2010), *reprinted in* ANTHONY CORTILET, *MINN. DEP’T OF AGRIC., INDUSTRIAL HEMP REPORT* (2010) (“[P]eace officers would have great difficulty in determining whether detected or seized marijuana/hemp was the high potency drug type or the low grade variety.”); Veto Message, *supra* note 107 (“California law enforcement has expressed concerns that [legalizing the production of industrial hemp] could place a drain on their resources and cause significant problems with drug enforcement activities.”).

121. See Duppong, *supra* note 25, at 430 (“[T]he DEA has stood firm on its position that allowing industrial hemp production would increase the illegal marijuana trade.”); Kolosov, *supra* note 47, at 249-50 (“The agency claims that permitting industrial hemp farming would intensify covert production of marijuana and complicate the DEA’s enforcement activities”).

tion. The cultivation of the marijuana plant exclusively for commercial/ industrial purposes has many associated risks related to diversion into the illicit drug traffic.¹²²

One of the DEA's primary concerns is that law enforcement officials "would have a hard time distinguishing between hemp and marijuana fields, and people would try to covertly grow marijuana in hemp fields."¹²³ Other law enforcement agencies have echoed this concern.¹²⁴ Opponents of the legalization of industrial hemp also fear that through a process known as "extraction,"¹²⁵ or by selectively breeding their plants,¹²⁶ industrial hemp producers might be able to

122. Statement from DEA, *supra* note 93; *see also* Marty Bergoffen & Roger Lee Clark, *Hemp As an Alternative to Wood Fiber in Oregon*, 11 J. ENVTL. L. & LITIG. 119, 138 (1996) ("[T]he DEA has indicated that a significant obstacle to industrial hemp production is the threat of diversion of THC-bearing leaf and flower matter."). *See generally* Wedgewood Vill. Pharmacy v. DEA, 509 F.3d 541, 542 (D.C. Cir. 2007) ("Congress enacted the CSA in 1970 to reduce drug abuse by preventing the diversion of controlled substances.").

123. Keller, *supra* note 14, at 585; *see also* Cowan, *supra* note 24, at 26-27 (discussing the DEA's position that "[h]emp fields could be used to hide marijuana, confusing police and putting an extra burden on law enforcement"); Lotz, *supra* note 61 ("[T]he Drug Enforcement Administration opposes domestic hemp cultivation because hemp looks too much like marijuana and could be used by pot growers to hide illicit marijuana."); Shepherd, *supra* note 101, at 240 ("[T]he DEA argues that legalization of industrial hemp will create hiding places for illegal marijuana growers . . .").

124. *See, e.g.*, KY. NARCOTIC OFFICERS' ASS'N, OFFICIAL POSITION OF KENTUCKY NARCOTIC OFFICERS' ASSOCIATION 3 (Nov. 2012) ("Hemp crop legalization . . . would provide illicit cultivators the opportunity to disperse illicit cannabis crops with the hemp crop, drastically reducing and limiting law enforcements [sic] ability to detect and eradicate the illicit crop."); *see also* Hearing on S.B. 1431 Before H. Comm. on Educ., 45th Leg., 2d Sess. (Ariz. 2001) (testimony of Senator Darden Hamilton, Sponsor) (noting reports that "law enforcement is concerned that people would grow marijuana between the hemp plants."); CORTILET, *supra* note 27, at 8 ("The majority of opposition to industrial hemp production in the United States stems from the concern of citizens and the law enforcement community that illegal drug users and producers will be able to disguise the psychoactive form of *Cannabis* – marijuana – in and around industrial hemp fields.").

125. *See* Aycok v. State, 246 S.E.2d 489, 491 (Ga. Ct. App. 1978) ("Concentrations of THC can be produced . . . by chemically extracting it from the cannabis plant or by synthesizing it in the laboratory."); 74 Ops. Cal. Att'y Gen. 70, 76 (1991) ("Chemical extraction' is the process of removing a particular component of a mixture from others present. An example would be the extraction of resinous THC (tetrahydrocannabinol) . . . from marijuana.").

126. *See, e.g.*, Jacob Kamhis, *State Wants to Cover All Its Bases on Hemp Issue*, PAC. BUS. NEWS (Feb. 23, 1997, 7:00 PM HST), <http://www.bizjournals.com/pacific/stories/1997/02/24/story6.html> (discussing a Honolulu police lieutenant's assertion that "cross pollination of low-THC industrial hemp with high-THC plants could make industrial hemp attain a higher THC level"); *see also* Zlatko Mehmedic et al., *Potency Trends of Δ^9 -THC and Other Cannabinoids in Confiscated Cannabis Preparations from 1993 to 2008*, 55 J. FORENSIC SCI. 1209, 1209 (2010) ("The Δ^9 -

“enhance the THC levels in hemp to produce marijuana,”¹²⁷ just as illicit marijuana growers have been able to enhance the THC levels of their product.¹²⁸

The latter concern, in particular, cannot be lightly dismissed.¹²⁹ One commentator has noted that “due to technological improvements, better growing methods, and selective breeding, marijuana has become increasingly potent over the past few decades.”¹³⁰ The same is at least theoretically possible in the case of cannabis ostensibly grown for industrial use.¹³¹ Industrial hemp has been bred to increase the quality of fiber the plant produces,¹³² and to reduce its concentration of THC.¹³³ There is no scientific reason it could not also be bred to contain higher concentrations of THC.¹³⁴ Convinced that the plant’s fiber content and its

tetrahydrocannabinol (Δ^9 -THC) potency (concentration or content) of cannabis depends on soil and climate conditions, variety (phenotype), and cultivation techniques . . .”).

127. Shepherd, *supra* note 101, at 240; *see also* Cowan, *supra* note 24, at 29 (“Industrial hemp opponents contend the THC in hemp can be extracted and concentrated to make a powerful drug.”).

128. *See* Johnson v. State, 633 S.W.2d 687, 691 (Tex. Ct. App. 1982) (noting that “extracts from the plant Cannabis Sativa L., i.e. marihuana . . . generally contain bigger concentrations of THC”); Reid, *supra* note 30, at 191 (“Due to selective breeding and hydroponic growing processes, THC levels have increased by 50 percent since the 1960s.”).

129. *See generally* Poole, *supra* note 40, at 208 (“[I]ndustrial hemp, though low in THC content, can be converted for drug use.”).

130. Steven A. Vitale, Comment, “*Dope*” Dilemmas in a Budding Future Industry: An Examination of the Current Status of Marijuana Legalization in the United States, 23 U. MIAMI BUS. L. REV. 131, 133 (2014); *see also* Mehmedic et al., *supra* note 126, at 1216 (“It is . . . clear that cannabis has changed during the past four decades. It is now possible to mass produce plants with potencies inconceivable when concerted monitoring efforts started 40 years ago.”).

131. *See* VALERIE L. VANTREESE, UNIV. OF KY. DEP’T AGRIC. ECON, INDUSTRIAL HEMP: GLOBAL OPERATIONS, LOCAL IMPLICATIONS 5 (1998) (“[T]wo subspecies of *cannabis* . . . could cross-fertilize . . . elevating the THC content in the industrial hemp plant. . . . If the seed of the cross-pollinated plant was itself planted, the second generation of plants would exhibit stronger expressions of the change in the THC levels.”).

132. *See* WALKER, *supra* note 24, at 2 (“Selection and breeding efforts have produced varieties of industrial hemp with comparatively high fiber and grain yields and quality.”).

133. *See* Monson v. DEA, 522 F. Supp. 2d 1188, 1191 (D.N.D. 2007) (“The industrial hemp plant . . . has been bred to a low concentration of the psychoactive element of marijuana: tetrahydrocannabinol or THC.”), *aff’d*, 589 F.3d 952 (8th Cir. 2009); Paolo Ranalli, *Current Status and Future Scenarios of Hemp Breeding*, 140 EUPHYTICA 121, 125 (2004) (“European hemp breeders have developed many highly productive fiber cultivars with low-THC content.”).

134. *See, e.g.*, KY. REV. STAT. ANN. § 260.850(8) (West 2015) (“[H]igher THC concentration varieties of industrial hemp may be grown to provide breeding strains to revitalize the production of a Kentucky strain of industrial hemp.”); *see also* COLO. DEP’T OF AGRIC., *supra* note 22, at 1 (discussing “ways to improve . . . varieties so that THC, quality and agronomic characteristics can be predicted . . .”).

concentration of THC “are not interrelated,”¹³⁵ the authors of one empirical study concluded that the manipulation of THC concentrations “for either high or low psychoactive potency” is possible within all varieties of cannabis, and that a selective breeding program should “not be hampered by strict linkage of cannabinoid content and . . . fibre content[.]”¹³⁶

Enhancing the THC concentration of industrial hemp might be particularly viable in the hot, arid climate of Arizona and other Southwestern states.¹³⁷ As one commentator explained:

The level of THC and fiber of hemp depend on climate, cultivation techniques, and the variety of seeds used. Hemp grown in temperate regions with moist soils has more fiber. By contrast, hemp grown in hot and dry climates tends to produce more resin, which is the most potent source of the plant’s narcotic properties.¹³⁸

B. Responses to the DEA’s Law Enforcement Concerns

Proponents of Arizona Senate Bill 1519 challenged the assumptions underlying both of the principle law enforcement objections to industrial hemp.¹³⁹ They maintained that extracting THC from industrial hemp (or selectively breeding it to enhance its THC concentration)¹⁴⁰ would be “such an expensive, hazardous, and time-consuming process that it is extremely unlikely anyone would ever attempt it, rather than simply obtaining high-THC marijuana instead.”¹⁴¹ They

135. E.P.M. de Meijer et al., *supra* note 8, at 198.

136. *Id.* at 199; *see also* SMITH-HEISTERS, *supra* note 24, at 10 (“There is . . . potential for improving hemp through selective plant breeding and genetic engineering, developing different varieties for each intended market.”).

137. *See generally* Dwyer, *supra* note 40, at 1145 (“Hemp is an adaptable and versatile plant, and . . . whether it tends to have more THC or produce more fiber . . . depend[s] on climate and cultivation techniques as well as the variety of seed used.”).

138. Rogers, *supra* note 1, at 479; *see also* E.P.M. de Meijer et al., *supra* note 8, at 187 (“Warm, dry and windy conditions . . . induce a higher density of resin glands where the biosynthesis of cannabinoids takes place.”); Kristin J. Balding, Comment, *It Is a ‘War on Drugs’ and It Is Time to Reload Our Weapons: An Interpretation of 21 U.S.C. § 841*, 43 ST. LOUIS U. L.J. 1449, 1462 n.108 (1999) (“When the hemp plant is grown in hot and/or dry climates, it tends to produce more resin, which is the most potent part of the narcotic of the plant.”).

139. *See* CASTLEMAN, *supra* note 46, at 30.

140. *See generally* Ranalli, *supra* note 133, at 125 (“[B]reeding of hemp . . . requires high expenses in terms of labor, time, proficiency and means to develop new varieties.”).

141. CASTLEMAN, *supra* note 46, at 30.

It is well known in the illicit trade how to screen off the more potent fractions of the plant in order to increase THC levels in resultant drug products. Nevertheless, a level of 0.3% THC . . . is too low in intoxicant potential to actually be used practically

also argued that

cross-pollination between hemp plants and marijuana plants would significantly reduce the potency of the marijuana plant. If hemp does pollinate any nearby marijuana, genetically, the result will always be lower-THC marijuana, not higher-THC hemp A pot grower would fear the inevitable pollen from hemp cultivation in a mixed plot, and would not hide his plant in industrial hemp fields.¹⁴²

Although the issue is far from settled,¹⁴³ the legalization proponents appear to have the better of these arguments.¹⁴⁴ Any concern that industrial hemp growers would attempt to enhance the potency of their crops presumably can be addressed by statutorily limiting the permissible concentration of THC in industrial hemp,¹⁴⁵ and establishing monitoring and testing procedures to ensure that the statutory limit is not exceeded.¹⁴⁶ For example, the recently enacted California

for illicit production of marijuana or other types of cannabis drugs.

Ernest Small & David Marcus, *Hemp: A New Crop with New Uses for North America*, in *TRENDS IN NEW CROPS AND NEW USES* 284, 292 (J. Janick & A. Whipkey eds., 2002).

142. CASTLEMAN, *supra* note 46, at 30; *see also* CORTILET, *supra* note 27, at 8 (“[B]ecause of the biological nature for hemp to contaminate marijuana plants and significantly lower the THC content, illegal marijuana growers generally avoid hemp fields altogether.”); Keller, *supra* note 14, at 585 (“[C]overt planting of marijuana in hemp fields would prove disastrous to the marijuana grower because the two strands would cross-pollinate, and the low THC strand, industrial hemp, would win the genetic war causing the marijuana to lose potency.”).

143. *See* KRAENZEL ET AL., *supra* note 3. (“[L]aw enforcement agencies have legitimate concerns about their ability to enforce laws regulating the higher THC marijuana if industrial hemp is allowed to be produced.”); Poole, *supra* note 40, at 208 (“The Drug Enforcement Administration does not distinguish industrial hemp from marijuana, making it illegal to grow in the United States. Several arguments in favor of this stance seem quite reasonable on their face.”).

144. *See* Lash, *supra* note 1, at 355 (characterizing “fears of possible drug enforcement problems should hemp production be legalized” as “unjustified and unsubstantiated”); SMITH-HEISTERS, *supra* note 24, at 27 (“The potential for illicit marijuana cultivation is not considered a significant obstacle to industrial hemp farming in any other developed democracy in the world.”).

145. *See, e.g.*, MONT. CODE ANN. § 80-18-102 (2015) (“[A]n individual in this state may plant, grow, harvest, possess, process, sell, or buy industrial hemp if the industrial hemp does not contain more than 0.3% tetrahydrocannabinol.”); VT. STAT. ANN. tit. 6, § 562(3) (2015) (“‘Hemp’ means the plant *Cannabis sativa* L. and any part of the plant, whether growing or not, with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent on a dry weight basis.”); *Monson v. DEA*, 589 F.3d 952, 957 (8th Cir. 2009) (“The state . . . imposes strict THC limits in an effort to prevent the cultivation of cannabis plants for drug use”); *see also* N.D. CENT. CODE §§ 4-41-02 (2015).

146. *See, e.g.*, COLO. REV. STAT. § 35-61-105(2) (2013) (providing for the adoption of

Industrial Hemp Farming Act requires hemp farmers to “submit a sample of their crop for laboratory testing before harvest,” and to provide copies of the test report to law enforcement officials upon request.¹⁴⁷ In order to avoid destruction of the crop,¹⁴⁸ “the sample must contain no more than 0.3% THC.”¹⁴⁹ Other states impose similar sampling and testing requirements on industrial hemp growers.¹⁵⁰

The concern that marijuana growers would attempt to hide their crops in industrial hemp fields also appears to be largely unfounded,¹⁵¹ and not merely because cross-pollination could lessen the marijuana’s potency¹⁵² (although this

“rules to establish an inspection program to determine delta-9 tetrahydrocannabinol levels and ensure compliance with the limits on delta-9 tetrahydrocannabinol”); VT. STAT. ANN. tit. 6, § 566 (authorizing the adoption of “rules to require hemp to be tested during growth for tetrahydrocannabinol levels and to require inspection and supervision of hemp during sowing, growing season, harvest, storage, and processing”).

147. Serrao, *supra* note 96, at 500-01 (discussing California Food & Agricultural Code section 81006(f)).

148. See CAL. FOOD & AGRIC. CODE § 81006(f)(7) (West 2015).

A registrant that grows industrial hemp shall destroy the industrial hemp grown upon receipt of a first laboratory test report indicating a percentage content of THC that exceeds 1 percent or a second laboratory test report . . . indicating a percentage content of THC that exceeds three-tenths of 1 percent but is less than 1 percent.

Id.

149. Serrao, *supra* note 96, at 500-01 (discussing California Food & Agricultural Code section 81006(f)(5)); see also Official Advance Sheets, 97 OPS. CAL. ATT’Y GEN. 21, 25 (2014) (noting that the California act “imposes various requirements upon those who would grow or cultivate industrial hemp, including safeguards designed to ensure that plants do not contain excessive amounts of THC”).

150. See, e.g., OR. REV. STAT. § 571.305(8) (2015) (“The department may inspect any industrial hemp crop . . . and take a representative composite sample for field analysis. If a crop contains an average tetrahydrocannabinol concentration exceeding 0.3 percent on a dry weight basis, the department may detain, seize or embargo the crop”); COLO. CODE REGS. § 1203-23.4(4.1) (2015) (“All registrants are subject to sampling of their industrial hemp crop to verify that the THC concentration does not exceed 0.3% on a dry weight basis.”). See generally SMITH-HEISTERS, *supra* note 24, at 27 (“Existing and proposed regulation of industrial hemp farming typically requires that crops are tested and approved to contain less than 0.03 percent THC before harvest.”).

151. See Stern & DiFonzo, *supra* note 28, at 760 (“[D]rug enforcement officials worry that marijuana growers will sneak into harmless hemp patches and conceal more potent varieties of the plant North Dakota’s agricultural commissioner[] dismissed such concerns. Hemp fields, he explained, are subject to unannounced searches and crop testing.”); Shepherd, *supra* note 101, at 257 (“There is . . . scientific evidence that the pollen of hemp dampens the THC producing abilities of the marijuana plant, so marijuana growers would definitely *not* hide their growth among hemp plants.”).

152. See Thedinger, *supra* note 17, at 423 (“A major justification voiced by the DEA for the continued prohibition of industrial hemp is that industrial plants would be indistinguishable

potential deterrent was acknowledged in a congressional research study published in early 2015).¹⁵³ Industrial hemp traditionally was (and in other countries continues to be)¹⁵⁴ grown primarily as a fiber crop,¹⁵⁵ although it is now often grown for seed as well.¹⁵⁶ When grown strictly for fiber,¹⁵⁷ hemp is planted more densely (and harvested earlier)¹⁵⁸ than marijuana,¹⁵⁹ making it virtually impossi-

ble from the psychoactive variety. However, there is little merit to this claim because a comparative examination of the planting methods for industrial hemp and marijuana reveals distinct differences.”).

153. See JOHNSON, *supra* note 7, at 4.

If marijuana is grown in or around industrial hemp varieties, the hemp would pollinate the . . . marijuana plant[s]. Marijuana growers would not want to plant near a hemp field, since this would result in a harvest that is seedy and lower in THC, and degrade the value of their marijuana crop.

Id.

154. See Bergoffen & Clark, *supra* note 122, at 123 (“[H]emp has survived as a valuable cash crop in many regions of the world. It is a source of cloth and paper in China, where massive population growth has demanded maximum production of renewable resources. Other former communist states . . . have grown hemp for fiber for years . . .”).

155. See *United States v. Adams*, 293 F. Supp. 776, 779 (S.D.N.Y. 1968) (“Originally native to Central Asia, the plant was introduced here about the time of the American Revolution for the cultivation of hemp fibre, and it became . . . this country’s second largest non-food agricultural crop.”); John H. Garland, *Hemp; A Minor American Fiber Crop*, in 22 *ECON. GEOGRAPHY* 126, 126 (1946) (“In the subsistence agriculture of much of early America, hemp was extensively cultivated to satisfy need for fibers, especially in regions beyond the limits of cotton growing.”); Small & Marcus, *supra* note 141, at 284 (“For most of its history, [cannabis sativa] was most valued as a fiber source, considerably less so as an intoxicant, and only to a limited extent as an oilseed crop.”); WALKER, *supra* note 24, at 3 (noting that “industrial hemp was historically grown as a fiber crop in the United States”).

156. See VT. STAT. ANN. tit. 6, § 561(3) (2015) (“The hemp plant . . . is morphologically distinctive and readily identifiable as an agricultural crop grown for the cultivation and harvesting of its fiber and seed.”); ROBBINS ET AL., *supra* note 110, at 1 (“Industrial hemp is grown for seed and for the fibers from its stalk.”); VANTREESE, *supra* note 131, at 7 (“Industrial hemp is grown for its fiber (outer bark), hurds (woody inner core of the stalk) and seeds (for oil and meal).”).

157. See Cowan, *supra* note 24, at 27 (“Most farmers grow hemp either for fiber and stalk or for seeds because the dual-purpose crops are of lower quality.”).

158. See Don, *supra* note 7, at 243 n.9 (“When grown for hemp fibers, the plant is harvested before it has a chance to flower In contrast, marijuana is harvested later, after the plant has had time to fully mature and flower.”); Keller, *supra* note 14, at 558 (noting that “industrial hemp is harvested much earlier than . . . marijuana”); Kolosov, *supra* note 47, at 250 (noting that “hemp is harvested five to six weeks before marijuana”); Shepherd, *supra* note 101, at 257 (“[T]he hemp plant is harvested and processed *before* it flowers, some three to four weeks before a marijuana plant would be suitable for harvesting.”).

159. See *Hearing on S.B. 1431 Before the H. Comm. on Educ.*, 45th Leg., 2d Sess. (Ariz. 2001) (testimony of Senator Darden Hamilton, Sponsor) (“When hemp is grown for the stalk

ble for illicit marijuana growers to hide their crops in hemp fields.¹⁶⁰ As one commentator explained:

[I]t is extremely unlikely that marijuana plants could be concealed in an industrial hemp field. Hemp growers plant seeds very close together to create straight, tall plants with long fibers, whereas marijuana growers plant seeds at wide intervals to create bushy plants with lots of branches with flower-producing ends. Additionally, hemp is harvested five to six weeks before marijuana, and cross-pollination between the plants would significantly lower the THC content in the marijuana plants.¹⁶¹

When grown strictly for seed¹⁶² – or for both fiber and seed¹⁶³ – hemp ordinarily is planted less densely,¹⁶⁴ and thus more closely resembles marijuana,¹⁶⁵ making it easier to conceal marijuana in a hemp field.¹⁶⁶ California has attempt-

to produce fiber, the stalk is 12 feet tall and plants are 6 inches apart, whereas marijuana is grown as a bush with lots of leaves.”); Cowan, *supra* note 24, at 27 (“[H]emp is planted in narrow rows four inches apart; branching is discouraged and the plant is not allowed to flower. Marijuana . . . is spaced widely to encourage branching and its flowers are harvested.”); Thedinger, *supra* note 17, at 423 (“Grown for fiber, industrial hemp is planted in narrow rows spaced approximately four inches apart, which . . . results in more useable fiber. Marijuana, on the other hand, is spaced much further apart to encourage leafing and branching, ultimately producing the flower containing THC – the desired product.”).

160. See JOHNSON, *supra* note 7, at 3 (“The different cannabis varieties are . . . harvested at different times (depending on the growing area), increasing the chances of detection of illegal marijuana, if production is commingled.”); KRAENZEL ET AL., *supra* note 3, at 5 (“Industrial hemp grown for fiber is easily distinguishable from marijuana because the plant is considerably taller and spaced closer together.”).

161. Kolosov, *supra* note 47, at 250.

162. See Garland, *supra* note 155, at 129 (“Since the stalks are cut green for fiber, before the seed ripens, seed must be grown separately.”).

163. See USDA, INDUSTRIAL HEMP IN THE UNITED STATES: STATUS AND MARKET POTENTIAL 4 (2000) [hereinafter INDUSTRIAL HEMP] (“Industrial hemp can be grown as a fiber, seed, or dual-purpose crop.”); KRAENZEL ET AL., *supra* note 3, at 14 (“The grower may focus on long fibers, seed only, or both seed and fiber (dual purpose).”).

164. See Fortenbery & Bennett, *supra* note 10, at 99 (“When grown for seed, hemp is planted farther apart to encourage branching and greater seed development.”); KRAENZEL ET AL., *supra* note 3, at 17 (“When hemp is grown for seed there will be more spacing in the field so the stalks will be shorter and there will be numerous branches on the plant.”).

165. See KRAENZEL ET AL., *supra* note 3, at 5 (“[W]hen industrial hemp is grown for seed, it does resemble marijuana.”); SMITH-HEISTERS, *supra* note 24, at 3 (“Hemp grown for seed looks similar to marijuana.”).

166. See VANTREESE, *supra* note 131, at 5 (“If grown for seed production, industrial hemp closely resembles *cannabis sativa l.* grown for marijuana. . . . Consequently, it would be relatively easy to ‘hide’ marijuana amongst hemp plants grown for seed, but not amongst hemp grown for fiber.”).

ed to minimize this risk by requiring that all industrial hemp, whether grown for fiber or for seed, be “densely planted.”¹⁶⁷ However, even in states that impose no such planting requirements, the “culling of male plants from the field” and other marijuana growing practices would provide law enforcement officials and other trained observers with a strong visual indication that “it is marijuana and not industrial hemp” that is being grown.¹⁶⁸

Finally, growers attempting to hide marijuana in hemp fields do risk diluting the THC concentration of their marijuana plants,¹⁶⁹ even when the hemp is being grown strictly for seed.¹⁷⁰ If this risk is not sufficient to discourage growers from commingling their crops,¹⁷¹ the requisite deterrent can be provided

Grown for seed or for seed and fiber, plants are spaced farther apart to encourage branching and seed production. Marijuana varieties . . . are grown under low-density conditions to maximize branching. Thus, planting density and other production characteristics do not offer a reliable way to distinguish varieties for law enforcement purposes.

INDUSTRIAL HEMP, *supra* note 163, at 2.

167. CAL. FOOD & AGRIC. CODE § 81006(a)(1)-(2) (West 2015).

168. S.B. 566 § 2(h)(5), 2013-14 Reg. Sess. (Cal. 2013). “‘Culling,’ or cutting and discarding commercially unproductive male plants, is part of the marijuana cultivation process.” *United States v. Fletcher*, 74 F.3d 49, 55 (4th Cir. 1996). Male plants “have less commercial value and are not generally marketed” because they “produce a markedly lesser psychotropic effect than . . . female plants.” *United States v. Proyect*, 989 F.2d 84, 87 (2d Cir. 1993). Conversely, “the male cannabis plant has the most commercial utility for the production of hemp.” *Dickerson v. State*, 414 So.2d 998, 1004 (Ala. Crim. App. 1982). Accordingly, it is “standard practice” for marijuana growers – but not industrial hemp growers – “to discard the male plants[.]” *Proyect*, 989 F.2d at 87.

169. *See Brady*, *supra* note 60, at 87 (“Industrial hemp has . . . been shown to cross pollinate with marijuana and create the effect of lowering the THC level in the marijuana, thus acting as an eradicator of marijuana.”); *cf. Poole*, *supra* note 40, at 209 (“[M]arijuana grown for drug use would be ruined if it were planted within miles of plants grown for industrial hemp use because of the distance pollen can be carried by the wind.”).

170. *See SMITH-HEISTERS*, *supra* note 24, at 3 (“If seed hemp and marijuana plants cross-pollinate, the resulting seed produces plants with THC levels in between the levels found in the parent plants. Growers of either plant should want to prevent this, and use a known genetic variety to grow each new crop.”); DAVID P. WEST, *HEMP AND MARIJUANA: MYTHS & REALITIES* 14 (1998) (“Where seed is the harvested product, whether as production seed or oilseed, purity is critical to marketability. The mixing of off-type genotypes would be scrupulously avoided in seed production fields.”).

171. Marijuana grown today contains a higher concentration of THC than marijuana grown in the 1960s and 1970s. *See, e.g., State v. Am. Civil Liberties Union of Alaska*, 204 P.3d 364, 367 n.7 (Alaska 2009) (describing “legislative findings that . . . the average potency of marijuana used in Alaska in 2003 was nearly fourteen times stronger than that used in the 1960s and 1970s”); *see also* Lisa M. Bianculli, Note, *The War on Drugs: Fact, Fiction and Controversy*, 21 SETON HALL LEGIS. J. 169, 178 (1997) (“[T]he THC content in marijuana has

through the adoption of strict statutory or regulatory licensing and field inspection provisions,¹⁷² as has been done in Canada¹⁷³ and other countries that permit the cultivation of industrial hemp.¹⁷⁴

By way of comparison, marijuana grown for use as a recreational drug is indistinguishable from marijuana grown for medicinal purposes,¹⁷⁵ and is therefore easy to “hide” among plants purportedly being grown for medicinal use.¹⁷⁶

increased, creating a much more potent form of marijuana today . . . compared to that available in the 1960’s.”). The dramatic increase in marijuana’s potency suggests that fear of cross-pollination would not necessarily deter growers from attempting to conceal marijuana in industrial hemp fields. See KY. NARCOTIC OFFICERS’ ASS’N, OFFICIAL POSITION OF KENTUCKY NARCOTIC OFFICERS’ ASSOCIATION 3 (Nov. 2012) (“While it is true that pollination would cause a reduction of THC production in the illicit cannabis, it would still provide the illicit cultivator with a viable product suitable for sale and consumption.”).

172. See, e.g., Kolosov, *supra* note 47, at 250 (noting that hemp farmers in North Dakota “are required to . . . provide the state government with a . . . map illustrating exactly where they intend to grow industrial hemp,” and also must “make their fields accessible to state inspectors for monitoring and testing”); Lash, *supra* note 1, at 318 (“[H]emp growers operate under a permit system where local police inspect fields on a routine basis. No rational individual would grow marijuana in such a monitored location.”).

173. See INDUSTRIAL HEMP, *supra* note 163, at 2 (noting that Canadian agronomists and law enforcement officials “check fields and test plants to make sure that no narcotic plants are grown with the industrial hemp”); Keller, *supra* note 14, at 585 (noting that Canada’s industrial hemp regulations “are so strict and exact that police know where and what type of hemp grows in each field, which alleviates much of the concern with distinguishing between the two strains”).

174. See Bergoffen & Clark, *supra* note 122, at 138 (“[A] specific program to alleviate this threat must be presented. A possible model is found in the European Union, with strict controls on seed acquisition and specific procedures for determination of THC content.”).

All countries that have . . . begun to recommercialize hemp operate under a permit system whereby the farmer must let the local police know which field is being planted in hemp. Would a marijuana grower decide to plant his or her crop in an area high on the police radar screen and subject to monitoring without notice?

WEST, *supra* note 170, at 15.

175. As one commentator explained: “The term ‘medical marijuana’ is actually a misnomer. There is no special strain of marijuana used for medical purposes. Recreational users consume the same cannabis used by patients to relieve some of the symptoms of their illnesses.” Paul F. Larkin, Jr., *Medical or Recreational Marijuana and Drugged Driving*, 52 AM. CRIM. L. REV. 453, 468 n.63 (2015); see also Brian Nisbet, Comment, *What Can RICO Do?: RICO and the Non-Economic Intrastate Enterprise that Perpetrates Only Non-Economic Racketeering Activity*, 99 J. CRIM. L. & CRIMINOLOGY 509, 536 (2009) (“Functionally, medicinal marijuana is the same as marijuana intended for recreational use.”). Indeed, it was in part an “increase in recreational use [that] led some users to accidentally stumble upon marijuana’s medicinal value.” Alex Kreit & Aaron Marcus, *Raich, Health Care, and the Commerce Clause*, 31 WM. MITCHELL L. REV. 957, 962 (2005).

176. See, e.g., NAPA CNTY. GRAND JURY, FINAL REPORT ON NAPA SPECIAL

This possibility has not prevented a growing number of states – including Arizona¹⁷⁷ – from legalizing the cultivation of medical marijuana.¹⁷⁸ The assumption underlying these laws is that state officials can put “controls in place to prevent medical marijuana from entering the illicit drug market.”¹⁷⁹ This assumption applies with no less force to the legalization of industrial hemp,¹⁸⁰ which – as previously noted – is visually distinct from marijuana,¹⁸¹ and the cultivation of which thus should be even easier to monitor and keep legitimate.¹⁸²

INVESTIGATIONS BUREAU 15 (2009-2010) (“[T]hroughout California, state and local law enforcement cannot distinguish between illegal marijuana grow[er]s and those that qualify as medical exceptions.”); *see also* *Hearing on S.B. 1431 Before the H. Comm. on Educ.*, 45th Leg., 2d Sess. (Ariz. 2001) (testimony of Robert Bogatin, Ariz. Indus. Hemp Council) (“[M]arijuana grown for recreational or medicinal use is typically grown to promote growth of the flowering tops, so the plants are very small, very wide, and have huge flowering tops . . .”) (emphasis added).

177. *See* ARIZ. REV. STAT. ANN. §§ 26-2801 to 36-2819 (2015); *Montgomery v. Harris*, 346 P.3d 984, 988 (Ariz. 2014) (“In 2010, Arizona voters passed the Arizona Medical Marijuana Act[,] . . . legalizing marijuana for medicinal purposes.”). For a discussion of Arizona’s enactment, *see* Michael J. Aurit, *Reefer Sadness: How Patients Will Suffer If Arizona Refuses to Implement Its Own Medical Marijuana Law*, 5 PHOENIX L. REV. 543 (2012).

178. *See, e.g., In re Rent-Rite Super Kegs W. Ltd.*, 484 B.R. 799, 804 (Bankr. D. Colo. 2012) (“Under state law in Colorado, it is legal to cultivate . . . marijuana for medicinal purposes.”); *People v. Bianco*, 113 Cal. Rptr. 2d 392, 398 (Ct. App. 2002) (Scotland, P.J., concurring in part and dissenting in part) (noting that California law “permits the cultivation . . . of a limited amount of marijuana for medicinal purposes”). Indeed, “a number of states have now legalized growing marijuana plants for both medicinal and recreational use.” *United States v. Dado*, 759 F.3d 550, 573 (6th Cir. 2014) (Merritt, J., dissenting) (emphasis added), *cert. denied*, 135 S. Ct. 510 (2014).

179. Amanda M. Jones, Casenote, *Gonzales v. Raich: How the Medical Marijuana Debate Invoked Commerce Clause Confusion*, 28 U. HAW. L. REV. 261, 287 (2005); *see, e.g., CAL. HEALTH & SAFETY CODE* § 11362.81(d) (West 2015) (“[T]he Attorney General shall develop and adopt appropriate guidelines to ensure the security and nondiversion of marijuana grown for medical use by patients qualified under the Compassionate Use Act of 1996.”); *see also* *Gonzales v. Raich*, 545 U.S. 1, 53 (2005) (O’Connor, J., dissenting) (“[C]ommon sense suggests that . . . state legislation may well isolate activities relating to medicinal marijuana from the illicit market . . .”).

180. *See* Brady, *supra* note 60, at 106 (“The theory is that if there is a high degree of government control the public health and welfare will be protected and the production of marijuana will be curtailed.”); Dwyer, *supra* note 40, at 1179 (“With a series of licensing requirements or registration of seed dealers, farmers, and processors, along with field inspections and plant tests, it would be possible to ensure that hemp rather than marijuana is being grown.”).

181. *See* Shepherd, *supra* note 101, at 240 (“Many distinguishing characteristics exist between the two. The trained eye can easily tell the difference between a strand of industrial hemp and a strand of marijuana.”).

182. *See* Thedinger, *supra* note 17, at 423 (“[V]isual differences between the ‘industrial’ and ‘drug’ variety of the plants would help facilitate local testing and regulation of the industrial hemp industry.”).

C. Judicial Deference to the DEA

The foregoing analysis suggests (and at least one court has concluded) that industrial hemp is not “the terrible menace the DEA makes it out to be.”¹⁸³ Nevertheless, the courts have consistently upheld the DEA’s authority to regulate, and thus effectively prohibit,¹⁸⁴ industrial hemp production,¹⁸⁵ reasoning that “problems of detection and enforcement easily justify a ban broader than the psychoactive variety of the plant.”¹⁸⁶

In *Monson v. Drug Enforcement Administration*, for example, the plaintiffs obtained licenses to grow industrial hemp from the state of North Dakota,¹⁸⁷ but had not received the DEA’s permission to do so.¹⁸⁸ Rather than proceed with cultivation under their state licenses,¹⁸⁹ the plaintiffs filed suit against the DEA seeking a declaration that persons growing industrial hemp in compliance with state law could not be prosecuted for violating the CSA.¹⁹⁰ The Eighth Circuit upheld the dismissal of the plaintiffs’ complaint,¹⁹¹ holding that Congress vested the DEA, rather than the states, with the authority to regulate the production of

183. *Monson v. DEA*, 522 F. Supp. 2d 1188, 1202 (D.N.D. 2007), *aff’d*, 589 F.3d 952 (8th Cir. 2009).

184. See *Cowan*, *supra* note 24, at 30 (“[G]rowing . . . hemp in North Dakota, or any other state, is still prohibited by the DEA regardless of state law.”); *Keller*, *supra* note 14, at 564 (“[T]he DEA has refused to grant any permits, which makes production still illegal at the federal level . . .”). See generally *Andrews v. Montgomery Ward & Co.*, 30 F. Supp. 380, 384 (N.D. Ill. 1939) (“The power to regulate is the power to prohibit.”), *aff’d sub nom. Fleming v. Montgomery Ward & Co.*, 114 F.2d 384 (7th Cir. 1940).

185. See *Duppong*, *supra* note 25, at 430 (“[T]he courts have justified the DEA’s refusal to grant industrial hemp licenses largely because of the detection and enforcement problems of growing industrial hemp.”); *Kolosov*, *supra* note 47, at 251 (“[T]he rulings of courts considering the DEA’s classification of hemp as a controlled substance reveal their inclination to defer to the judgment of the DEA with respect to its diversion concerns.”).

186. *N.H. Hemp Council, Inc. v. Marshall*, 203 F.3d 1, 6 (1st Cir. 2000).

187. See *Monson v. DEA*, 589 F.3d 952, 955 (8th Cir. 2009).

188. The DEA refused a request to expedite the plaintiffs’ federal registration applications, citing its statutory and regulatory obligation to investigate their backgrounds and inspect their production facilities. See *Monson*, 589 F.3d at 957; *cf. JOHNSON*, *supra* note 7, at 15 (2015) (“DEA application requirements . . . include a nonrefundable fee, FBI background checks, and extensive documentation.”).

189. See *Monson*, 589 F.3d at 957; *cf. Kolosov*, *supra* note 47, at 248 (“[B]ecause North Dakota farmers face federal criminal prosecution if they plant industrial hemp without a license from the DEA, none have benefited from their state licenses.”).

190. See *Monson*, 589 F.3d at 960; *cf. Avi Brisman, Crime-Environment Relationships and Environmental Justice*, 6 SEATTLE J. FOR SOC. JUST. 727, 742 (2008) (“[F]armers have not undertaken cultivation of industrial hemp out of fear that such efforts, even with state licenses, would violate the Controlled Substances Act.”).

191. *Monson*, 589 F.3d at 953.

industrial hemp.¹⁹² The court concluded that the DEA’s authority to do so¹⁹³ – and to prosecute growers who may be violating the CSA¹⁹⁴ – is warranted by the federal interest in preventing the “unlawful diversion of controlled substances.”¹⁹⁵

V. RECENT FEDERAL DEVELOPMENTS

A. *The Cole Memorandum*

A United States Department of Justice memorandum providing all United States Attorneys with “Guidance Regarding Marijuana Enforcement,”¹⁹⁶ issued on August 29, 2013 and now often referred to as the Cole Memorandum,¹⁹⁷ appears to have lessened the risk of federal prosecution for individuals growing industrial hemp in compliance with state law.¹⁹⁸ Read in conjunction with earlier Justice Department pronouncements on the subject,¹⁹⁹ the Cole Memorandum

192. *See id.* at 964-65 (“By regulating all *Cannabis sativa* L. plants, Congress, through the CSA, vested the DEA with the authority to determine whether a particular proposal for its growth is sufficiently controlled so as not to undermine the objectives of the Act.”).

193. JOHNSON, *supra* note 7, at 13 (“DEA determines whether any industrial hemp production authorized under a state statute is permitted, and it enforces standards governing the security conditions under which the crop must be grown.”).

194. *See United States v. Stacy*, 696 F. Supp. 2d 1141, 1149 (S.D. Cal. 2010) (“Federal prosecuting authorities are free to investigate and prosecute individuals if, in their judgment, there is reason to believe that state law is being invoked to mask the illegal production or distribution of marijuana.”); *State v. Liechti*, 123 P.3d 350, 352 (Or. Ct. App. 2005) (“Under the Controlled Substances Act (CSA), it is illegal to manufacture or simply possess marijuana. Those activities, though authorized by state statute[,] . . . are enforceable by federal agents as federal crimes.”).

195. *Monson*, 589 F.3d at 964; *see also Am. Pharm. Ass’n v. Weinberger*, 377 F. Supp. 824, 831 (D.D.C. 1974) (“The problem of unlawful diversion is one presently consigned by Congress to the Drug Enforcement Administration . . .”), *aff’d sub nom. Am. Pharm. Ass’n v. Mathews*, 530 F.2d 1054 (D.C. Cir. 1976).

196. Memorandum from James M. Cole, Deputy Att’y Gen., U.S. Dep’t of Justice, to All U. S. Att’ys (Aug. 29, 2013) [hereinafter 2013 Cole Memorandum].

197. *See Blake & Finlaw*, *supra* note 40, at 368; JOHNSON, *supra* note 7, at 17.

198. *See In re Arenas*, 514 B.R. 887, 890 n.5 (Bankr. D. Colo. 2014) (“[T]he Justice Department is unlikely to prosecute violations of the CSA . . . where the conduct in question is legal under . . . state law.” (discussing 2013 Cole Memorandum, *supra* note 196)).

199. *See State ex rel. Polk v. Hancock*, 340 P.3d 380, 386 n. 7 (Ariz. Ct. App. 2014) (noting that the Cole Memorandum “updated prior communications concerning marijuana enforcement under the federal Controlled Substances Act”), *vacated*, 347 P.3d 142 (Ariz. 2015). The Cole Memorandum is the third in a series of Justice Department memoranda providing “guidance to federal prosecutors concerning marijuana enforcement under the Controlled Substances Act (CSA).” 2013 Cole Memorandum, *supra* note 196. The initial memorandum, authored by Deputy Attorney General David W. Ogden and therefore commonly referred to as

identifies several law enforcement concerns that are “particularly important to the federal government,”²⁰⁰ and states that as long as these concerns are adequately addressed,²⁰¹ “enforcement of state law by state and local law enforcement and regulatory bodies should remain the primary means of addressing marijuana-related activity.”²⁰²

Although silent on the issue,²⁰³ the Cole Memorandum is widely assumed to apply to state-authorized industrial hemp production.²⁰⁴ In a letter responding

the “Ogden Memorandum,” was issued on October 19, 2009. *See* United States v. Dayi, 980 F. Supp. 2d 682, 686 (D. Md. 2013); United States v. Washington, 887 F. Supp. 2d 1077, 1091 (D. Mont. 2012). Deputy Attorney General Cole issued an intervening memorandum on June 29, 2011, which is now occasionally referred to as the “first” or “2011” Cole Memorandum. *See* Dayi, 980 F. Supp. 2d at 686.

200. 2013 Cole Memorandum, *supra* note 196; *see also* United States v. Pickard, 100 F. Supp. 3d 981, 1010-11 (E.D. Cal. 2015).

[T]he Cole Memorandum . . . describes eight enforcement priorities to guide the CSA’s enforcement: (1) preventing the distribution of marijuana to minors; (2) preventing revenue from the sale of marijuana from going to criminal enterprises, gangs, and cartels; (3) preventing the diversion of marijuana from states where it is legal under state law in some form to other states; (4) preventing state-authorized marijuana activity from being used as a cover or pretext for the trafficking of other illegal drugs or other illegal activity; (5) preventing violence and the use of firearms in the cultivation and distribution of marijuana; (6) preventing drugged driving and the exacerbation of other adverse public health consequences associated with marijuana use; (7) preventing the growing of marijuana on public lands and the attendant public safety and environmental dangers posed by marijuana production on public lands; and (8) preventing marijuana possession or use on federal property.

Pickard, 100 F. Supp. 3d at 1010-11.

201. *See* Memorandum from James M. Cole, Deputy Att’y Gen., U.S. Dep’t of Justice, to All U.S. Att’ys (Feb. 14, 2014) (“The August 29 guidance rested on the expectation that states that have enacted laws authorizing marijuana-related conduct will implement clear, strong and effective regulatory and enforcement systems in order to minimize the threat posed to federal enforcement priorities.”).

202. *Reed-Kaliher v. Hoggatt*, 332 P.3d 587, 591 n.2 (Ariz. Ct. App. 2014), *aff’d*, 347 P.3d 136 (Ariz. 2015); 2013 Cole Memorandum, *supra* note 196; *see also* Letter from S. Amanda Marshall, U.S. Att’y, Dist. of Or., to Congressman Earl Blumenauer 2 (Nov. 18, 2013) (“[A]s long as the state follows through in imposing strict controls regulating marijuana-related conduct, it is less likely that any of the Department’s eight enforcement priorities will be threatened and federal action will be less necessary.”) [hereinafter Letter from S. Amanda Marshall].

203. *See* JOHNSON, *supra* note 7, at 18 (noting that “the Cole memo does not specifically address industrial hemp”); Memorandum from Joe Sandler, Counsel for Vote Hemp, to Interested Parties on States’ Ability to Regulate Industrial Hemp 3 (Nov. 13, 2013) [hereinafter Memorandum from Joe Sandler] (“[T]he Cole Memorandum does not specifically address industrial hemp . . .”).

204. *See* Memorandum from Joe Sandler, *supra* note 203, at 3 (“There is no reason to be-

to an inquiry from Congressman Earl Blumenauer of Oregon, a prominent proponent of the legalization of both industrial hemp²⁰⁵ and marijuana,²⁰⁶ the United States Attorney for the District of Oregon, Amanda Marshall, confirmed that because industrial hemp is deemed to be marijuana within the meaning of the CSA,²⁰⁷ the enforcement priorities outlined in the Cole Memorandum “apply to hemp just as they do to all forms of cannabis.”²⁰⁸ Marshall went on to explain that outside of these priorities, the Justice Department (and specifically its attorneys in the District of Oregon)²⁰⁹ ordinarily would rely “on state and local authorities to address lower-level or localized marijuana activity through enforce-

lieve that the Cole Memorandum would not apply by its terms to the cultivation of industrial hemp under state laws.”)

205. See EARL BLUMENAUER & JARED POLIS, THE PATH FORWARD: RETHINKING FEDERAL MARIJUANA POLICY 15, http://polis.house.gov/uploadedfiles/the_path_forward.pdf (last visited Apr. 4, 2016) (“Congress should remove the senseless ban on industrial hemp by passing legislation removing industrial hemp from the definition of marijuana. This would allow a new agricultural industry to begin to flourish in the United States.”).

206. See *United States v. 5 Reynolds Lane*, 956 F.Supp.2d 349, 362 (D. Conn. 2013) (“Congressmen Jared Poles (D-CO) and Earl Blumenauer (D-OR) . . . introduced a bill to end the federal prohibition on marijuana and allow it to be taxed. This legislation would remove marijuana from the Controlled Substances Act. That way growers, sellers and users could no longer fear violating federal law.”); Robert W. Wood, *Feds Move to Snuff Out Medical Marijuana*, FORBES (June 21, 2013), <http://onforb.es/12eZH1M>.

207. See *United States v. White Plume*, 447 F.3d 1067, 1073 (8th Cir. 2006) (observing that “the CSA does not distinguish between marijuana and hemp in its regulation”).

208. Letter from S. Amanda Marshall, *supra* note 202, at 2; see also JOHNSON, *supra* note 7, at 18 (“[B]ecause [the Department of Justice] regards all varieties of the cannabis plant as ‘marijuana’ and does not distinguish between low- and high-THC varieties, the August 2013 guidance appears to cover industrial hemp production as well.”).

209. See *United States v. Baldwin*, 541 F. Supp. 2d 1184, 1190 (D.N.M. 2008) (“[T]hrough the inevitable rationing of limited resources, U.S. attorneys set the federal law enforcement agenda for their districts by determining which crimes are worth major investigative resources, [and] which crimes are better left to the state criminal justice systems”); Ross E. Weiner, *Inter-Branch Appointments After the Independent Counsel: Court Appointment of United States Attorneys*, 86 MINN. L. REV. 363, 383 (2001). One commentator has called on all United States Attorneys to “issue their own detailed statements of policy within the relatively broad framework set out by the Cole Memo.” Bradley E. Markano, Note, *Enabling State Regulation of Marijuana Through Executive Branch Nonenforcement*, 90 N.Y.U. L. REV. 289, 319-20 (2015). As he explained:

These guidelines . . . could clarify precisely what kind of regulations need to be passed or complied with in order for state citizens to evade federal interference within any given jurisdiction. And although any such guidelines would . . . be entirely discretionary, they would add valuable specificity to an area of enforcement that is rife with uncertainty.

Id. at 319-20.

ment of their own narcotics laws.”²¹⁰

Marshall’s letter also noted the Justice Department’s expectation that “states that legalize the cultivation or use of cannabis, whether for industrial purposes . . . or otherwise, will establish and enforce strict regulatory schemes that protect the eight federal interests identified in the Department’s guidance.”²¹¹ Several of the state industrial hemp statutes that currently exist reflect state legislative efforts to meet this expectation.²¹² For example, a recently enacted South Carolina statute criminalizes the cultivation of marijuana “on property used for industrial hemp production, or in a manner intended to disguise the marijuana due to its proximity to industrial hemp.”²¹³ The California Industrial Hemp Farming Act likewise contains a provision requiring that the state’s attorney general report to the legislature any instances of a “field of industrial hemp being used to disguise marijuana cultivation.”²¹⁴ Colorado’s industrial hemp statutes and implementing regulations also were drafted with a view to accommodating

210. Letter from S. Amanda Marshall, *supra* note 202, at 2; *see also* Commonwealth v. Craan, 13 N.E.3d 569, 578 (Mass. 2014) (“The Department of Justice has recognized that, ‘[o]utside of these enforcement priorities, the federal government has traditionally relied on states and local enforcement agencies to address marijuana activity through enforcement of their own narcotics laws,’ and will continue to do so where Federal priorities are not implicated.”); 2013 Cole Memorandum, *supra* note 196.

211. Letter from S. Amanda Marshall, *supra* note 202, at 2; *see also* United States v. Brecker, No. 4:14CR250 CDP (TIA), 2015 WL 1565355, at *4 (E.D. Mo. Apr. 8, 2015) (“The Memorandum . . . indicates that the Department of Justice expects that states which have enacted laws to authorize marijuana related conduct also will establish strict regulatory schemes backed by strong enforcement systems.”).

212. *See* Memorandum from Joe Sandler, *supra* note 203, at 2.

The state laws are calculated to achieve objectives entirely congruent with the federal enforcement priorities identified in the Cole Memorandum – ensuring no diversion of drug marijuana and ensuring that cultivation of industrial hemp will not be used as a “cover” for the “trafficking of” or “other illegal activity” with respect to any illegal drugs, including drug marijuana itself.

Id.

213. S.C. CODE ANN. § 46-55-40 (2015). Although obviously intended to deter marijuana growers from attempting to hide their crops in industrial hemp fields, this statutory provision is actually superfluous. *See* Op. S.C. Att’y Gen., 2014 WL 7505274, at *1 (Dec. 23, 2014) (“Section 46-55-40 provides criminal penalties for individuals cultivating marijuana in areas where industrial hemp is legally cultivated and processed, stating that those who do so are, *in addition to other potential criminal penalties*, guilty of a misdemeanor . . .”) (emphasis added). Growing marijuana for drug use is unlawful in South Carolina regardless of whether or not it is done on property used for or in close proximity to the production of industrial hemp. *See generally* State v. Austin, 279 S.E.2d 374, 374 (S.C. 1981) (analyzing South Carolina Code Annotated sections 44-53-110 and 370).

214. CAL. FOOD & AGRIC. CODE § 81008(a)(1) (West 2015).

the federal law enforcement concerns discussed in the Cole Memorandum,²¹⁵ and the Tennessee legislature was cognizant of those concerns and even invoked the Cole Memorandum when it enacted legislation authorizing the production of industrial hemp.²¹⁶

In these states, at least, the Cole Memorandum gives federal prosecutors “discretion to refrain from zealous enforcement of the CSA against . . . hemp growers who are complying with state law.”²¹⁷ Indeed, one overly enthusiastic observer proclaimed that

were states to proceed to implement their laws regulating and authorizing cultivation of industrial hemp, and make those laws operative in accordance with their terms including the strong regulatory and enforcement regime provided for in those laws, [the] U.S. Department of Justice would not prosecute anyone authorized under that state law for the cultivation of industrial hemp.²¹⁸

This is an overstatement.²¹⁹ A “grower who is in compliance with state law

215. See Blake & Finlaw, *supra* note 40, at 369.

Colorado was – and continues to be – aligned with the perspectives and guidance contained in the Cole Memo. Indeed, Colorado currently shares the Justice Department’s desire for robust enforcement actions against those who will not abide by Colorado’s laws and regulations related to the cultivation, sale, transport, and use of marijuana.

Id.

216. See 2014 Tenn. Pub. Acts 916 (“[I]n the summer of 2013, the attorney general for the United States issued a directive instructing the federal department of justice not to enforce federal drug laws concerning cannabis in states that have approved the medical or recreational use of marijuana . . .”).

217. Pringle, *supra* note 77, at 74; cf. Sam Kamin, *Cooperative Federalism and State Marijuana Regulation*, 85 U. COLO. L. REV. 1105, 1121 (2014) (“Those using, selling, or manufacturing marijuana under state law are not subject to criminal prosecution simply because federal prosecutors have chosen not to prosecute them.”) [hereinafter Kamin, *Cooperative Federalism*].

218. Memorandum from Joe Sandler, *supra* note 203, at 3; see also JOHNSON, *supra* note 7, at 18 (“[S]ome are interpreting the guidance as allowing states to proceed to implement their laws regulating and authorizing the cultivating of hemp.”).

219. See *In re Arenas*, 514 B.R. 887, 890 n.5 (Bankr. D. Colo. 2014) (noting that the policy announced in the Cole Memorandum “represents an exercise of prosecutorial discretion and is subject to change at any time”); Op. Ark. Att’y Gen., No. 2013-117, 2013 WL 5521869, at *4 (Oct. 2, 2013) (“[A] mere memorandum of guidance to federal prosecutors suggesting that they suspend the enforcement of federal law under certain circumstances is not the equivalent of a concession that state laws can be declared valid in the face of conflicting, preemptive federal law.”); Markano, *supra* note 209, at 321 (“Although the DOJ can make freedom from enforcement more likely, it cannot entirely foreclose the possibility of enforce-

may find the risks acceptably small and of little deterrence to his operation,²²⁰ as appears to have been the conclusion reached by a few small-scale industrial hemp farmers in Colorado,²²¹ and perhaps in other states now as well.²²² Nevertheless, the Cole Memorandum does not reflect a change in federal law.²²³ Nor does the memorandum purport to immunize industrial hemp producers from federal prosecution,²²⁴ even in states with statutes purporting to authorize such production,²²⁵ as the Justice Department itself made clear in a contemporaneous news release.²²⁶

ment by U.S. Attorneys or prosecutors . . .”).

220. *In re McGinnis*, 453 B.R. 770, 772 (Bankr. D. Or. 2011) (discussing a medical marijuana growing operation); see also Fischer, *Initiative Measure*, *supra* note 41 (“[T]he federal government has shown little interest in actually enforcing existing laws not only on hemp but also on marijuana.”).

221. JOHNSON, *supra* note 7, at 14 (“In May 2013, it was reported that hemp is being cultivated in Colorado, following changes to that state’s laws in November 2012.”); cf. *In re Arenas*, 514 B.R. at 890 n.5 (“[T]he Justice Department is unlikely to prosecute violators of the CSA in Colorado where the conduct in question is legal under Colorado law.”).

222. See JOHNSON, *supra* note 7, at 22 (“Production of industrial hemp has been reported in Colorado, Kentucky, and Vermont.”); Shari Narine, *Potential of Hemp in Alberta Grows*, AG ANNEX (Oct. 2013), <http://www.agannex.com/plant-genetics/potential-of-hemp-in-alberta-grows> (“In November 2012, Colorado allowed the cultivation of small test plots; today industrial hemp is being grown in that state. Kentucky is also on its way to growing industrial hemp.”).

223. See *West v. Holder*, 60 F. Supp. 3d 197, 203-04 (D.D.C. 2015) (“[T]he Cole Memo . . . neither limits the power of prosecutors to enforce the federal drug laws nor offers any interpretation of (or modification to) those laws.”); *United States v. Pickard*, 100 F. Supp. 3d 981, 1010-11 (E.D. Cal. 2015) (“The Cole Memorandum is a very different creature from a statute It does not make production or distribution of marijuana legal in any state”); Letter from Jack Conway, Attorney Gen., Commonwealth of Ky., to Rodney Brewer, Comm’r, Ky. State Police 6 (Sept. 25, 2013) (“Since the 2013 DOJ Memo does not change the federal law regarding the growth of marijuana or hemp, growing either remains a violation of federal law.”) [hereinafter Letter from Jack Conway].

224. See *United States v. Gouve*, No. 2:14-PO-0157-JTR-1, 2015 WL 417928, at *4 (E.D. Wash. Jan. 30, 2015) (“[T]o the extent the Cole Memorandum articulates an official policy of the Department of Justice, a policy does not bar any federal prosecution.”); Pringle, *supra* note 77, at 74 (“The Cole Memorandum . . . does not afford ‘a legal defense to the violation of federal law, including any civil or criminal violation of the CSA.’”); 2013 Cole Memorandum, *supra* note 196.

225. See *Pickard*, 100 F. Supp. 3d at 1010 (“[T]he memorandum is intended solely as a guide to the exercise of investigative and prosecutorial discretion and in no way alters the Department of Justice’s . . . authority to enforce federal laws relating to marijuana, regardless of state law.”); Letter from Jack Conway, *supra* note 223, at 1-2 (“Despite . . . the issuance of a recent memorandum from the U.S. Department of Justice prioritizing federal enforcement interests in states that have taken steps to legalize marijuana, the cultivation of industrial hemp remains illegal . . .”).

226. See *Justice Department Announces Update to Marijuana Enforcement Policy*, U.S. DEP’T. OF JUST. (Aug. 29, 2013), <http://www.justice.gov/opa/pr/justice-department->

Indeed, the guidance provided by the Cole Memorandum and its predecessors is notably (and perhaps intentionally) vague,²²⁷ and in some respects even contradictory,²²⁸ leaving federal prosecutors with broad discretion “to decide which state regulations fail to pass muster as adequate alternatives to [federal] prohibition”²²⁹ As U.S. Attorney Marshall explained in her letter to Congressman Blumenauer, if any of the federal law enforcement concerns discussed in the Cole Memorandum “do materialize—either in spite of a strict [state] regulatory scheme or because of the lack of one – federal prosecutors will act aggressively to bring individual prosecutions and may challenge the regulatory scheme[s] themselves.”²³⁰ Accordingly, industrial hemp growers remain subject to prosecution under the CSA, even in states authorizing hemp production,²³¹ de-

announces-update-marijuana-enforcement-policy (“In a new memorandum outlining [its updated enforcement] policy, the Department makes clear that marijuana remains an illegal drug under the Controlled Substances Act and that federal prosecutors will continue to aggressively enforce this statute.”).

227. See Kamin, *Cooperative Federalism*, *supra* note 217, at 1121 (discussing “the wiggle-room written into the second Cole memo”); Markano, *supra* note 209, at 308 (asserting that “the DOJ’s marijuana policy statements are vague”).

228. See Alex Kreit, *Reflections on Medical Marijuana Prosecutions and the Duty to Seek Justice*, 89 DENV. U. L. REV. 1027, 1039 (2012) (asserting that the first Cole Memorandum “was issued to provide additional ‘guidance’ regarding the Ogden memorandum but, in reality, it directly contradicted it”); Don, *supra* note 7, at 220 (characterizing the Justice Department’s guidance as “borderline schizophrenic”). The New Mexico Court of Appeals described the essential contradiction in the following terms:

On one hand, the Department of Justice affirmed that marijuana remains illegal under the CSA and that federal prosecutors will continue to aggressively enforce the statute. But, on the other hand, and in the same documents, the Department of Justice identified eight areas of enforcement priority and indicated that outside of those priorities it would generally defer to state and local authorities.

Vialpando v. Ben’s Auto. Servs., 331 P.3d 975, 980 (N.M. Ct. App. 2014), *cert. denied*, 331 P.3d 924 (N.M. 2014).

229. Markano, *supra* note 209, at 308; *cf.* United States v. Brecker, No. 4:14CR250 CDP (TIA), 2015 WL 1565355, at *4 (E.D. Mo. Apr. 8, 2015) (“The federal enforcement interests include the exercise of discretion to investigate and prosecute individuals whose conduct threatens the stated federal interests without regard to the state in which the individuals live or what the laws of those states may permit.”).

230. Letter from S. Amanda Marshall, *supra* note 202, at 2-3; *see also* Brecker, 2015 WL 1565355, at *4 (“The Memorandum contemplates . . . that where a state has not enacted *and enforced* a strict regulatory scheme, federal prosecutors will bring individual prosecutions and may challenge the regulatory scheme itself.”) (emphasis added).

231. See Olsen v. Holder, 610 F. Supp. 2d 985, 994 (S.D. Iowa 2009) (noting that “farmers could be prosecuted for growing industrial hemp, despite state authorization to do so”); Monson v. DEA, 522 F. Supp. 2d 1188, 1200 (D.N.D. 2007), *aff’d*, 589 F.3d 952 (8th Cir. 2009).

spite the purported change in federal enforcement policy represented by the Cole Memorandum.²³²

B. The Farm Bill

The Agricultural Act of 2014,²³³ popularly known as the “farm bill,”²³⁴ may reflect a more promising – and certainly constitutes a more explicit—change in federal policy concerning the cultivation of industrial hemp.²³⁵ Section 7606 of the farm bill, entitled “Legitimacy of Industrial Hemp Research,”²³⁶ authorizes state agricultural departments and universities to grow industrial hemp for research purposes *notwithstanding the CSA*,²³⁷ as long as “the growing or cultivating of industrial hemp is allowed under the laws of the State in which such institution of higher education or State department of agriculture is located and such research occurs.”²³⁸

This federal statutory provision permits states to authorize the cultivation of industrial hemp within their borders for the limited purposes described in the farm bill²³⁹—that is, “for purposes of research conducted under an agricultural pilot program or other agricultural or academic research.”²⁴⁰ Had this provision

232. See Pringle, *supra* note 77, at 74 (“[A]lthough federal prosecutors may have discretion to refrain from zealous enforcement of the CSA against . . . hemp growers who are complying with state law, the federal statute remains in effect and cannot be ignored.”).

233. Agricultural Act of 2014, Pub. L. No. 113-79, § 7606, 128 Stat. 649.

234. See Official Advance Sheets, 97 OPS. CAL. ATT’Y GEN. 21, 25 (2014); Pringle, *supra* note 77, at 75.

235. See Op. S.C. Att’y Gen., 2014 WL 7505274, at *7 (Dec. 23, 2014) (“[T]he 2014 Farm Bill . . . appears to have altered the authority of States to regulate industrial hemp.”); JOHNSON, *supra* note 7, at 1 (“The 113th Congress made significant changes to U.S. policies regarding industrial hemp during the omnibus farm bill debate.”).

236. Agricultural Act of 2014, § 7606.

237. *Id.*

238. *Id.*; see also JOHNSON, *supra* note 7, at 20 (noting that state legislation authorizing industrial hemp cultivation “is a pre-condition for allowances under the 2014 farm bill”).

239. See Op. S.C. Att’y Gen., 2014 WL 7505274, at *5 (Dec. 23, 2014) (“[I]t appears that when the requirements described in Section 7606 are met, federal law permits state regulation of industrial hemp.”).

240. 7 U.S.C.S. § 5940(a)(1) (LexisNexis 2016); see also JOHNSON, *supra* note 7, at 20 (“The enacted law . . . allow[s] both certain research institutions and also state departments of agriculture to grow industrial hemp, as part of an agricultural pilot program, if allowed under state laws where the institution or State department of agriculture is located.”). The farm bill defines an “agricultural pilot program” as a “program to study the growth, cultivation, or marketing of industrial hemp . . . in a manner that . . . ensures that only institutions of higher education and State departments of agriculture are used to grow or cultivate industrial hemp.” 7 U.S.C.S. § 5940(b)(1)(B)(i).

been in place in 2001,²⁴¹ it presumably would have alleviated Governor Hull's concern with the potential conflict between Arizona Senate Bill 1519 and the CSA.²⁴² Indeed, a handful of state legislatures quickly reacted to the farm bill's enactment by creating pilot research programs or otherwise authorizing universities to begin cultivating industrial hemp for research purposes.²⁴³

Nevertheless, the DEA's longstanding opposition to industrial hemp production was only partially ameliorated by the farm bill.²⁴⁴ In particular, the farm bill does not legalize the commercial production of industrial hemp.²⁴⁵ It merely authorizes production "for purposes of . . . agricultural or academic research,"²⁴⁶ and then only by state agricultural departments and institutions of higher education.²⁴⁷ Because commercial hemp production continues to be regulated by the DEA under the CSA,²⁴⁸ and the DEA consistently refuses to authorize such pro-

241. The farm bill became effective on February 7, 2014, when it was signed into law by President Obama. *See* Op. Cal. Att'y Gen., 2014 WL 2573239, at *7 (June 6, 2014) ("The federal Agricultural Act did not provide an effective date for the law generally or the industrial hemp provisions contained in Section 7606 specifically. In this circumstance, Section 7606 . . . became effective on February 7, 2014, when the President signed the Agricultural Act into law.").

242. *See* H.B. 385, 147th Gen. Assemb., 2d Reg. Sess. (Del. 2014) ("Section 7606 of the federal Farm Bill exempts the growth and cultivation of industrial hemp for research purposes from the provisions of the federal Controlled Substances Act . . . so long as the growth and cultivation is . . . permitted under state law."); Pringle, *supra* note 77, at 74. ("The 2014 farm bill statute creates a limited authorization for growth of industrial hemp for research '[n]otwithstanding the Controlled Substances Act.'"); *see also* 7 U.S.C.S. § 5940(a).

243. *See, e.g.*, 720 ILL. COMP. STAT. 550/15.2 (2015); *see also* United States v. White Plume, No. CIV 02-5071-JLV, 2016 WL 1228585, at *7 (D.S.D. Mar. 28, 2016) ("[S]even states have ventured into the area of agricultural or academic research of industrial hemp."); JOHNSON, *supra* note 7, at 20 ("As the farm bill did not include an effective date distinct from the date of enactment, several states responded by making immediate plans to initiate new hemp pilot projects.").

244. *See* Pringle, *supra* note 77, at 74 ("The problem of the DEA's tight controls over hemp cultivation may be somewhat ameliorated by the 2014 farm bill."); *cf.* JOHNSON, *supra* note 7, at 23 ("It . . . remains unclear how federal authorities will respond to production in states where state laws permit growing and cultivating hemp.").

245. *See* Pringle, *supra* note 77, at 75 (noting that "the federal statute does not legalize commercial hemp production").

246. 7 U.S.C.S. § 5940(a)(1).

247. *See* Pringle, *supra* note 77, at 75 (noting that "colleges and universities and [a state] agricultural department" can "grow hemp for research and development purposes"); Letter from Joseph T. Rannazzisi, Deputy Assistant Administrator, Drug Enforcement Administration Office of Diversion Control, to Luke Morgan, Counsel, Kentucky Department of Agriculture 1 (May 22, 2014) [hereinafter Letter from Joseph T. Rannazzisi] ("Section 7606 does not provide any authorization to private growers who are not institutions of higher education or a State department of agriculture within the meaning of Section 7606.").

248. *See* Official Advance Sheets, 97 OPS. CAL. ATT'Y GEN. 21, 32 (2014) ("[F]ederal

duction,²⁴⁹ the cultivation of industrial hemp by private commercial growers continues to subject those growers to potential criminal prosecution under the CSA.²⁵⁰

The South Carolina Attorney General implicitly confirmed this conclusion in a recent opinion addressing the states' authority to regulate the cultivation of industrial hemp.²⁵¹ The attorney general noted that the farm bill created a limited exception to the CSA's federal registration requirement,²⁵² and to that extent "altered the authority of States to regulate industrial hemp."²⁵³ However, this exception "only authorizes institutions of higher education and state agricultural departments to cultivate industrial hemp, and even then, only for research purposes."²⁵⁴ South Carolina's industrial hemp statutes are broader,²⁵⁵ authorizing the production of hemp "for any lawful purpose, including . . . the manufacture of industrial hemp products."²⁵⁶ Finding that state regulation of industrial hemp is likely to be preempted by the CSA "with the exception of the narrow circumstances permitted under [the farm bill],"²⁵⁷ the attorney general concluded

law . . . continues to prohibit the cultivation of industrial hemp for purposes other than agricultural or academic research . . ."); Letter from Joseph T. Rannazzisi, *supra* note 247, at 1 ("[P]rivate growers . . . remain subject to the registration requirement and all other applicable provisions of the Controlled Substances Act.").

249. See Dwyer, *supra* note 40, at 1168 ("Potential growers can seek permits to grow industrial hemp from the DEA, but permits have been very few in number, limited almost entirely to research plots.").

250. See JOHNSON, *supra* note 7, at 13 ("[A] grower needs to get permission from the DEA to grow hemp or faces the possibility of federal charges or property confiscation, regardless of whether that grower has a state-issued permit."); Letter from Jack Conway, *supra* note 223, at 6 ("Any farmer that grows industrial hemp for business purposes is . . . still subject to any applicable criminal provisions and the financial risks of investing and producing a product that it is illegal for the general public to possess or grow.").

251. See generally Op. S.C. Att'y Gen., 2014 WL 7505274, at *1 (Dec. 23, 2014).

252. See *id.* at *2 ("This provision . . . 'changed federal law to a limited extent, to authorize certain entities to grow or cultivate industrial hemp for agricultural or academic research purposes in states that permit such activity.'"); 97 Ops. Cal. Att'y Gen. 20, 22 (2014).

253. Op. S.C. Att'y Gen., 2014 WL 7505274, at *3 (Dec. 23, 2014).

254. *Id.* at *7.

255. See *id.* at *6 (contrasting the state statutes with the "narrower provisions" of the Farm Bill).

256. S.C. CODE ANN. § 46-55-20 (2015).

257. Op. S.C. Att'y Gen., 2014 WL 7505274, at *7 (Dec. 23, 2014). The CSA technically does not preempt the states' ability to enact laws authorizing the production of hemp. See *United States v. Pickard*, 100 F. Supp. 3d 981, 1012 (E.D. Cal. 2015) ("[T]he CSA does not preemptively limit a state's ability to pass laws regarding marijuana . . ."). This is in part because "Congress lacks authority to require states to criminalize conduct that the states choose to leave unregulated, no matter how explicitly Congress directs the states to do so." *Emerald Steel Fabricators, Inc. v. Bureau of Labor & Indus.*, 230 P.3d 518, 530 (Or. 2010); *cf.*

that the state had no ability to authorize the private commercial cultivation of hemp.²⁵⁸ There is no reason to believe the outcome would be any different in other states attempting to legalize industrial hemp production.²⁵⁹

VI. THE ECONOMIC FEASIBILITY OF INDUSTRIAL HEMP

Governor Hull's veto of Arizona Senate Bill 1519 was not based solely on its perceived conflict with other state and federal laws.²⁶⁰ Governor Hull also expressed doubt about the economic feasibility of reviving the industrial hemp industry in this country.²⁶¹ Citing a United States Department of Agriculture ("USDA") study finding that "the nation's hemp markets 'are, and will likely remain, small' and 'thin,'"²⁶² the governor stated:

Ter Beek v. City of Wyo., 846 N.W.2d 531, 539 (Mich. 2014) ("[T]here is no indication that the CSA's purpose or objective was to require states to enforce its prohibitions. Indeed, . . . Congress lacks the constitutional authority to impose such an obligation."). Nevertheless, state statutes purporting to authorize the commercial production of hemp may be *functionally* preempted because growers who abide by those statutes would "still not be safe from federal prosecution." Michael A. Cole, Jr., Note, *Functional Preemption: An Explanation of How State Medicinal Marijuana Laws Can Coexist With the Controlled Substances Act*, 16 MICH. ST. U. J. MED. & L. 557, 578 (2012).

258. See S.C. Att'y Gen., 2014 WL 7505274, at *3 (Dec. 23, 2014) ("[I]t seems clear the Department is unauthorized to provide private citizens with permits or licenses allowing the cultivation of industrial hemp since doing so would be inconsistent with Section 7606 of the 2014 Farm Bill."); cf. Op. Ark. Att'y Gen., No. 2013-117, 2013 WL 5521869, at *4 (Oct. 2, 2013) ("[T]he cultivation of hemp is restricted to an extent that, as a practical matter, renders commercial exploitation of the crop currently infeasible.").

259. See, e.g., Op. Cal. Att'y Gen., 2014 WL 2573239, at *7 (June 6, 2014) (concluding that the California Industrial Hemp Farming Act is inconsistent with the farm bill, and therefore inoperative, "to the extent that it would permit industrial hemp cultivation for commercial purposes"); see also VANTREESE, *supra* note 131, at 25 ("It appears that both federal and state law would have to be modified to permit legal hemp production in any one locale.").

260. See Ariz. Fact Sheet, S. 1519, 45th Leg., 1st Reg. Sess., at 1 (Ariz. 2001) ("In her veto message the Governor stated that she could not support the allocation of resources for education to a project that does not further, and may detract from, the goals she supports."); *Hearing on S.B. 1431 Before the H. Comm. on Educ.*, 45th Leg., 2d Sess. (Ariz. 2001) (testimony of Robert Bogatin, Ariz. Indus. Hemp Council) ("Governor Hull vetoed the bill . . . because of funding and the fact that she believed it would send the wrong message to children and youth.").

261. Letter to Randall Gnant, *supra* note 60; cf. Fortenbery & Bennett, *supra* note 10, at 116 ("The marginal profitability currently estimated combined with several substitute inputs in most industrial uses suggests that a significant increase in the supply of hemp would adversely impact market prices to the point that U.S. hemp production would not be viable.").

262. Wyatt, *supra* note 22 (slightly misquoting INDUSTRIAL HEMP, *supra* note 163, at 25); see also *Hearing on S.B. 1431 Before the H. Comm. on Educ.*, 45th Leg., 2d Sess. (Ariz. 2001) (testimony of Jerry Landau, Maricopa Cty. Att'y Office) ("[I]n the Governor's veto message, she . . . mentioned a U.S. Department of Agriculture study in 2000 that questioned

The study concluded that hemp production “will be unable to sustain adequate profit margins for a large production sector to develop.” It also pointed out the uncertainty of current and future hemp markets and cited Canada’s oversupply of hemp products. With this study already complete, the need for additional study by our universities is dubious.²⁶³

Other observers, including former Illinois Governor George Ryan²⁶⁴ and a federal judge in North Dakota,²⁶⁵ have painted a more optimistic picture,²⁶⁶ as the proponents of Arizona Senate Bill 1519 argued in response to Governor Hull’s veto.²⁶⁷ In this regard, a congressional research report issued in early 2015 states:

Studies by researchers in Canada and various state agencies provide a mostly positive market outlook for growing hemp, citing rising consumer demand and the potential range of product uses for hemp . . . Other studies highlight certain production advantages associated with hemp or acknowledge hemp’s benefits as a rotational crop or further claim that hemp

the economic feasibility of hemp.”).

263. Letter to Randall Gnant, *supra* note 60; *see also* Fortenbery & Bennett, *supra* note 10, at 97 (“State-sponsored studies on the economic viability of industrial hemp have been produced for Arkansas, Hawaii, Illinois, Kentucky, Missouri, North Dakota, Oregon, Vermont, and Wisconsin.”).

264. *See* Letter from George H. Ryan, Governor, State of Ill., to Honorable Members of the Ill. Senate (Feb. 23, 2001) (on file with author) (acknowledging that “the versatility of hemp offers some potential for future markets to be developed”). *But cf.* Letter from George H. Ryan, Governor, State of Ill., to Honorable Members of the Ill. House of Representatives (Aug. 3, 2001) (on file with author) (“Many studies have already been done on industrial hemp that indicate it is unlikely to move beyond the current small niche market to large-scale commercial production.”).

265. *See* *Monson v. DEA*, 522 F. Supp. 2d 1188, 1202 (D.N.D. 2007), *aff’d*, 589 F.3d 952 (8th Cir. 2009) (“There seems to be little dispute that the retail hemp market is significant, growing, and has real economic potential for North Dakota); *cf.* KRAENZEL ET AL., *supra* note 3, at 19 (“[P]roduction and processing of industrial hemp has the potential to be a viable industry in the United States and possibly North Dakota.”).

266. *See, e.g.*, Duppong, *supra* note 25, at 411 (“Overall, the continued growth in demand for industrial hemp products combined with greater productivity, ingenuity, and product offerings has created a promising global outlet for industrial hemp products and producers.”); Kolosov, *supra* note 47, at 258-59 (“[A]s illustrated by the rise in corn prices brought about by ethanol production, much has changed in agricultural commodities since 2000. Hemp’s potential as a replacement for petroleum products suggests that its profitability could be significantly higher than the USDA’s 2000 estimates.”).

267. In a letter to Governor Hull protesting her veto, the president of the Arizona Industrial Hemp Council criticized her reliance “on the hotly-contested January, 2000 ‘study’ of industrial hemp [while] ignoring, like that study, a mountain of contrary evidence from a great number of other sources[.]” Letter from Tim Castleman, *supra* note 63.

may be less environmentally degrading than other agricultural crops.²⁶⁸

In fact, hemp's potential as an environmentally friendly rotational crop has drawn the attention of farmers – and legislators²⁶⁹ – in a number of states.²⁷⁰ The plant's perceived environmental benefits²⁷¹ – and specifically the fact that it requires virtually no herbicides or pesticides²⁷² – may make it a particularly attractive agricultural commodity in Arizona,²⁷³ where it could serve as a less environmentally damaging alternative to cotton.²⁷⁴ As one commentator noted:

268. JOHNSON, *supra* note 7, at 7. *But see* Wyatt, *supra* note 22 (“[H]emp’s economic prospects are far from certain The Congressional Research Service recently noted wildly differing projections about hemp’s economic potential.”).

269. *See, e.g.*, H.B. 267, 2007-2008 Sess. § 1(7) (Vt. 2008) (“The production of industrial hemp can play a useful agronomic role in farm land management as part of a crop rotation system.”); *see also* Duppong, *supra* note 25, at 412 (“One study regarding the use of industrial hemp and its impact on North Dakota’s economy shows that industrial hemp would be a viable alternative rotation crop because it is used to make so many different products.”); KRAENZEL ET AL., *supra* note 3, at 19.

270. *See* CORTILET, *supra* note 27, at 9 (“Some Midwestern farmers have expressed interest in diversifying existing corn and soybean rotations by adding hemp as an alternative.”); JOHNSON, *supra* note 7, at 21 (“Farmers in regions of the country that are highly dependent upon a single crop . . . have shown interest in hemp’s potential as a high value alternative crop.”).

271. *See* Fortenbery & Bennett, *supra* note 10, at 115 (“A strong argument in favor of hemp’s commercialization is its relatively low environmental impact.”); Lash, *supra* note 1, at 335 (“Industrial hemp is recognized as one of the most ecologically beneficial and prolific crops that a farmer could choose to cultivate.”).

272. *See* Fortenbery & Bennett, *supra* note 10, at 115 (“Recent research on hemp has confirmed its potential as an attractive rotational crop (with minimal pesticide and herbicide use) that is well-suited to a wide range of growing conditions.”); Keller, *supra* note 14, at 578 (“[Hemp] requires nearly no pesticides or herbicides to thrive; and it coincidentally leaves the land in better shape than it was in before planting, thus creating a suitable plot for rotational crops where before there was none.”) (footnotes omitted); Lash, *supra* note 1, at 335-36 (“[B]ecause it requires virtually no pesticides and less fertilizer than other crops, hemp cultivation is environmentally friendly.”).

273. *See* *Hearing on S.B. 1431 Before the H. Comm. on Educ.*, 45th Leg., 2d Sess. (Ariz. 2002) (statement of Robert Bogatin, Arizona Industrial Hemp Council) (“[Hemp] could be grown in the northern part of Arizona and areas where other agricultural crops are grown, such as corn.”); Lauren Reimer, *Industrial Hemp Bill Being Discussed in Arizona Senate Committee*, KVOA (Mar. 2, 2015, 6:27 PM CST), <http://www.kvoa.com/story/28122312/industrial-hemp-bill-being-discussed-in-arizona-senate-committee> (“It grows like corn and can replace cotton. Hemp could be the newest plant to come to Arizona fields, if it can first be made legal.”).

274. *See* Brisman, *supra* note 190, at 742 n.102 (stating that “hemp . . . has proven to be an effective alternative to cotton (which uses a large amount of pesticides, fertilizers, and water)”); Dwyer, *supra* note 40, at 1151 (“[H]emp is seen as an environmentally friendly alternative to cotton. . . . Unfortunately, cotton demands heavy irrigation, twenty-six percent of the

“Cotton requires huge amounts of water and enormous quantities of pesticides, herbicides, and fertilizers. Whereas industrial hemp needs little or no pesticides or herbicides, and significantly less water than cotton crops do.”²⁷⁵

In actuality, hemp’s true economic potential – whether grown as a rotational crop or otherwise²⁷⁶ – cannot presently be predicted with any degree of certainty.²⁷⁷ As explained in a recent congressional research report: “Given the absence since the 1950s of any commercial and unrestricted hemp production in the United States, it is not possible to predict the potential market and employment effects of relaxing current restrictions on U.S. hemp production.”²⁷⁸

What does seem clear, however, is that in a country as dedicated to free market economic principles as the United States,²⁷⁹ hemp’s uncertain economic potential provides a particularly unpersuasive reason for prohibiting its production.²⁸⁰ As one commentator explained:

world’s pesticides, and more than seven percent of the fertilizer used annually . . . [H]emp demands few chemical aids beyond basic fertilization.”); Thedinger, *supra* note 17, at 428 (“[C]otton . . . comes at a higher environmental cost than hemp Cotton requires large amounts of water and exhausts soils . . .”).

275. Brady, *supra* note 60, at 96; *see also* THOMPSON ET AL., *supra* note 11, at 53 (“There . . . is an environmental benefit from growing industrial hemp versus other fiber crops. Cultivation of industrial hemp does not require pesticides (citation omitted). The production of other fiber crops such as flax or cotton often uses large quantities of pesticides.”). *See generally* Lash, *supra* note 1, at 350 (“Because of the ban on industrial hemp in this country, . . . Americans are forced to rely on cotton production for fiber. The increased pollution generated from production of cotton crops is staggering.”).

276. *See generally* KRAENZEL ET AL., *supra* note 3, at 19 (“Hemp . . . makes an excellent rotation crop. Although rotation is the most desirable, hemp can be planted on the same land for several years in succession.”).

277. *See* JOHNSON, *supra* note 7, at 9 (“While expanded market opportunities might exist in some states or localities if current restrictions on production are lifted, it is not possible to predict the potential for future retail sales or employment gains in the United States, either nationally or within certain states or regions.”); ROBBINS ET AL., *supra* note 110, at 1 (“In the midst of a relatively small, but growing market for hemp-related products, the question of economic viability . . . remains very uncertain.”).

278. JOHNSON, *supra* note 7, at 9; *see also* Fortenbery & Bennett, *supra* note 10, at 98 (“Because industrial hemp has not been produced in the United States for almost half a century, hard data on hemp profitability is lacking.”).

279. *See* Ulan v. Vend-A-Coin, Inc., 558 P.2d 741, 746 (Ariz. Ct. App. 1976) (“Free enterprise is a cornerstone of our democratic society.”); Beazley v. De Kalb Cty., 77 S.E.2d 740, 741 (Ga. 1953) (“[O]ne of the fundamental principles and foundation stones upon which our system of government was founded . . . is free enterprise.”).

280. *See* SMITH-HEISTERS, *supra* note 24, at 30 (“[Some] have argued that hemp shouldn’t be grown because the market for it is too speculative, and the crop may turn out to be unprofitable; in that case, corn (subsidized by the USDA at \$9.4 billion in 2005) should top the list of prohibited crops.”); WEST, *supra* note 170, at 20 (“[I]n a free enterprise system, government should not and cannot make the *a priori* decision to outlaw a crop simply because it be-

Legalizing hemp production would allow the market to decide whether this plant should succeed and would allow American farmers to make the choice of whether or not to grow hemp. The United States needs to join the world community in reexamining this versatile plant and allow farmers to produce industrial hemp like any other valuable crop.²⁸¹

Simple political inertia,²⁸² driven by a persistent “political ‘demonization’ of industrial hemp’s notorious cousin – marijuana,”²⁸³ provides a more logical (but not necessarily a more compelling)²⁸⁴ explanation for the continued federal prohibition of industrial hemp production.²⁸⁵ Only by overcoming this inertia – no easy task, to be sure²⁸⁶ – and deregulating the commercial production of hemp

lieves farmers would lose money by growing it.”). *See generally* Fulford v. Forman, 245 F.2d 145, 151 (5th Cir. 1957) (observing that “restriction in the use of one’s own farmland presents a basic conflict with traditional notions of free enterprise . . .”).

281. Thedinger, *supra* note 17, at 445; *see also* Small & Marcus, *supra* note 141, at 320 (“Increasingly . . . the world is testing the potential of hemp in the field and marketplace, which surely must be the ultimate arbiters.”); SMITH-HEISTERS, *supra* note 24, at 31 (“The full potential for industrial hemp in domestic agriculture and industry can only be tested by unrestricted inclusion in the U.S. market . . .”).

282. *See* Thedinger, *supra* note 17, at 446 (observing that hemp reform “will not occur until . . . politically feasible, which requires that a majority of the electorate believe in industrial hemp’s possibilities”); *cf.* Carole Shapiro, *Law & Laughter: The War Against the Evil Weed and Big Screen Reefer Sanity*, 29 OKLA. CITY U. L. REV. 795, 800-01 (2004) (“[L]aws remain a sacred cow for most political leaders Those who may personally believe in the need to reform the marijuana laws . . . still do not endorse reform of the laws, no doubt[] from fear of being labeled ‘soft’ on drugs.”).

283. Thedinger, *supra* note 17, at 426; *see also* Keller, *supra* note 14, at 575 (“The biggest battle industrial hemp activists face is the common confusion between marijuana and industrial hemp. Any mention of hemp immediately conjures an image and association with its psychoactive cousin, but the two are very different.”); Small & Marcus, *supra* note 141, at 320 (“[T]he legitimate use of hemp for non-intoxicant purposes has been inhibited by the continuing ferocious war against drug abuse.”).

284. *See* SMITH-HEISTERS, *supra* note 24, at 30 (“Reasons given for hemp prohibition in the United States make little sense today.”).

285. *See* Dwyer, *supra* note 40, at 1169 (“[A] political issue stymies congressional action in favor of hemp. No United States representative or senator would find it easy to be the one who opened the door to hemp, as long as the spectre of marijuana is present.”); Rogers, *supra* note 1, at 492 (“[P]olitics . . . contribute to [the] failure to legalize hemp. . . . [T]he fact that legislators do not want to involve themselves in politically controversial issues for fear that may hinder their reelection may contribute to the failure to support such legislation.”).

286. *See* United States v. 5 Reynolds Lane, 956 F. Supp. 2d 349, 362 (D. Conn. 2013) (“No change in the federal statute would appear to be imminent; at this bleak moment in the Nation’s history, Congress does not seem capable of doing anything of substance.”); Medical Marijuana Growers Ass’n v. Corrigan, 281 P.3d 210, 218 (Mont. 2012) (Nelson, J., concurring) (“[C]hanging this paradigm . . . will require concerted political efforts nationwide to elect supportive legislators and not to reelect senators, representatives, and executives who are

will it be possible to determine whether hemp can be an economically viable agricultural commodity in Arizona²⁸⁷ and other states,²⁸⁸ as it clearly once was²⁸⁹ and – many believe – can be again.²⁹⁰

opposed to changing the marijuana paradigm.”); Markano, *supra* note 209, at 318 (characterizing “legislative reform of the CSA” as “implausible in the present Congress”); Poole, *supra* note 40, at 198 (“Legalizing industrial hemp will require a concerted effort demanding that Congress reclassify it as a plant distinct from marijuana.”); Shapiro, *supra* note 282, at 811 (asserting that “efforts to shift the marijuana paradigm . . . have had to battle against the substantial weight of existing law”).

287. See *Hearing on S.B. 1431 Before H. Comm. on Educ.*, 45th Leg., 2d Sess. (Ariz. 2001) (testimony of Senator Darden Hamilton, Sponsor) (“[I]n Arizona . . . the difference in climate might make industrial hemp far more productive because of the length of the growing season as opposed to Canada where it is difficult to make a profit.”).

Farm Bureau spokeswoman Julie Murphee said removing the legal restrictions [on industrial hemp] could prove a major benefit for Arizona farmers. She said that could start with the University of Arizona doing research to develop a strain that would do well here that would provide farmers with a new cash crop.

Fischer, *Initiative Measure*, *supra* note 41; see also Hendley, *supra* note 35 (describing legislative testimony from “a prospective hemp farmer” who “insisted there’s definitely a local market for hemp” in Arizona).

288. See *VoteHemp, Inc. v. DEA*, 237 F. Supp. 2d 55, 65 (D.D.C. 2002) (asserting that “a free market for industrial hemp . . . could directly benefit . . . farmers and commercial entities”); Cowan, *supra* note 24, at 30 (“Whether industrial hemp . . . could become a staple crop in some states is a question that cannot be answered so long as it is illegal to grow in the United States.”); JOHNSON, *supra* note 7, at 7 (“Some state reports claim that if current restrictions on growing hemp in the United States were removed, agricultural producers in their states could benefit.”).

289. See, e.g., *Commonwealth v. Harrelson*, 14 S.W.3d 541, 545 (Ky. 2000) (“[A]t one time hemp was a major cash crop in central Kentucky”); see also CORTILET, *supra* note 27, at 9 (“[H]istorically, hemp has been an extremely beneficial agricultural commodity in the United States.”); Brady, *supra* note 60, at 85 (“Industrial hemp as a cash crop in the United States has a history as old as the United States itself.”).

290. See, e.g., H.R. Res. 32, 1999-2000 Leg., Reg. Sess. (Cal. 1999) (declaring that “the domestic production of industrial hemp can help protect California’s environment, [and] contribute to the growth of the state economy”); 2014 S.C. Acts 216 (“Research and development related to hemp has the potential to provide a cash crop for South Carolina’s farmers with broad commercial application that will enhance the economic diversity and stability of our state’s agricultural industry.”); W. VA. CODE § 19-12E-2 (2015) (“The Legislature finds that the development and use of industrial hemp can serve to improve the state’s economy and agricultural vitality”); Rheingans, *supra* note 34, at 127 (“Industrial hemp, with its recent revival, could be a large cash crop for Hawaii because of the relatively short growing cycle, giving the state close to four growing cycles per year.”).

VII. CONCLUSION

There may be legitimate reasons for Arizona and other states to legalize the commercial production of hemp,²⁹¹ notwithstanding the continued federal opposition to such production.²⁹² For one thing, broader legalization at the state level might serve as a catalyst for further federal reforms,²⁹³ as suggested by Congress's authorization of state-regulated industrial hemp research in the 2014 farm bill.²⁹⁴ Legalizing industrial hemp at the state level also might provide growers in those states with a competitive advantage if Congress – or the DEA²⁹⁵ – ever lifts the de facto federal ban on commercial production,²⁹⁶ as the legislatures in

291. See Duppong, *supra* note 25, at 425 (“The collective efforts by the states have resulted in the introduction of congressional legislation aimed at permitting the cultivation of industrial hemp in America.”); Rogers, *supra* note 1, at 493 (“[P]assing state law[s] legalizing the industrial cultivation of hemp is merely the first step; the federal law and agencies remain large obstacles.”).

292. See generally Hassenpflug, *supra* note 26, at 680 (“Today most states ban hemp farming because the U.S. Drug Enforcement Agency [sic] classifies it as a controlled substance requiring special permission and requirements for its cultivation.”).

293. See, e.g., Serrao, *supra* note 96, at 506 (“Ideally, California’s decision to legalize hemp might encourage and motivate greater action at the federal level.”); see Cowan, *supra* note 24, at 30 (“[S]tates are taking the lead, whether in . . . urging the federal government to legalize it, or simply legalizing it themselves as a call to action to the federal authorities.”); KRAENZEL ET AL., *supra* note 3, at 12 (“It appears that as a growing number of states pass legislation legalizing the production of industrial hemp for research, pressure will come to bear on the U.S. Congress to legalize cultivation.”).

294. See Pringle, *supra* note 77, at 75 (“The federal farm bill . . . represents an initial limited example of congressional action to amend federal law to harmonize with state law developments in the legitimization of cannabis.”); cf. Reid, *supra* note 30, at 205 (“Advocates for hemp and marijuana see [the farm bill] as a positive step in the . . . legalization movement at the federal level.”). See generally SMITH-HEISTERS, *supra* note 24, at 30 (“It seems likely that the United States cannot maintain hemp prohibition indefinitely.”).

295. See Rheingans, *supra* note 34, at 130 (noting that a “possible method by which one could be successful in legalizing industrial hemp with respect to federal law is to petition the Drug Enforcement Agency [sic] . . . to either re-list or de-list hemp as a controlled substance”). Although the DEA has no authority to alter the CSA’s definition of marijuana, “it does have the power to reschedule controlled substances.” Dwyer, *supra* note 40, at 1167. One commentator has argued that under the existing federal statutory scheme, “a petition to re-schedule . . . industrial hemp should be successful.” Rheingans, *supra* note 34, at 131 (discussing 21 U.S.C. § 811(c)). However, the DEA “has been resistant to attempts to revive hemp cultivation, maintaining a ‘zero tolerance’ approach for any substance containing any amount of THC, which includes hemp.” Rogers, *supra* note 1, at 486.

296. See, e.g., KRAENZEL ET AL., *supra* note 3, at 12 (noting “the belief that if Kentucky is the first to legalize industrial hemp, this will constitute a sustainable competitive advantage . . . in establishing a processing industry and marketing distribution infrastructure.”); ROBBINS ET AL., *supra* note 110, at 13 (discussing “the potential benefit if Kentucky would become . . . one of the first states to legalize the cultivation of industrial hemp”).

California,²⁹⁷ Kentucky,²⁹⁸ Vermont,²⁹⁹ and other states appear to have concluded.³⁰⁰

One could even credibly argue that the enactment of such legislation is well overdue.³⁰¹ Nevertheless, the CSA continues to prohibit the commercial production of industrial hemp without DEA approval,³⁰² and as a practical matter preempts state laws that purport to authorize such production.³⁰³ Until Congress

297. See Op. Cal. Att’y Gen., 2014 WL 2573239, at *2n.3 (June 6, 2014).

The [California Industrial] Hemp Act conditionally permits the growth and cultivation of industrial hemp in California. Recognizing that federal law continued to ban these activities throughout the United States at the time the Hemp Act was passed, the Legislature provided that the Hemp Act’s provisions ‘shall not become operative unless authorized by [sic] federal law’ – that is, by way of subsequent federal legislation.

Id.; CAL. FOOD & AGRIC. CODE § 810104 (West 2015).

298. See KY. REV. STAT. ANN. § 260.854(1)(b) (2015).

The [Industrial Hemp Commission] shall establish a program of licensure to allow persons to grow industrial hemp in the Commonwealth, as provided in this section. This program shall include . . . [a]n industrial hemp grower license, to allow a person to grow industrial hemp in this state for any purpose. This form of license shall only be allowed subject to the authorization of legal industrial hemp growth and production in the United States under applicable federal laws relating to industrial hemp.

Id.

299. See VT. STAT. ANN. tit. 6, § 561 (2015) (“The intent of this act is to establish policy and procedures for growing industrial hemp in Vermont so that farmers and other businesses in the Vermont agricultural industry can take advantage of this market opportunity when federal regulations permit.”).

300. See Brisman, *supra* note 190, at 742 (“Recognizing the economic and environmental benefits of hemp cultivation, legislatures in Maine, Montana, North Dakota, West Virginia, and other states have passed bills allowing farmers to grow industrial hemp.”); *cf.* Keller, *supra* note 14, at 588 (“Once Congress distinguishes between marijuana and industrial hemp, . . . the states would be able to go forward with their own regulations to comply with federal regulations.”).

301. See, e.g., Serrao, *supra* note 96, at 507 (“It has yet to be seen how feasible hemp growth might become within California – and whether the state can compete with the heavily subsidized foreign markets that had a head-start on legalization.”); see also SMITH-HEISTERS, *supra* note 24, at 30 (“Nations that followed the United States in prohibiting hemp cultivation have, for the most part, rescinded these laws – some more than a decade ago.”).

302. See Brady, *supra* note 60, at 85 (“Currently it is illegal to grow hemp in the United States without a special Drug Enforcement Administration (DEA) permit being issued.”); Rogers, *supra* note 1, at 493 (“[E]ven if [a state] passes favorable laws, the federal government can prohibit [hemp’s] cultivation for almost any reason and potential producers must obtain a DEA manufacturer’s permit for industrial production of hemp.”).

303. See Op. S.C. Att’y Gen., 2014 WL 7505274, at *7 (Dec. 23, 2014) (concluding that “state regulation and legalization of industrial hemp . . . is in conflict with the CSA and therefore preempted under federal law”); Letter from Jack Conway, *supra* note 223, at 3 (“State statutes and regulations involving industrial hemp that conflict with the federal Controlled

or the DEA removes this remaining federal restriction,³⁰⁴ legalizing the commercial production of hemp as a matter of state law may be a futile exercise.³⁰⁵ As one state court judge explained:

For the marijuana community – medical, commercial, and recreational – there is a solution to the problem. If the anti-marijuana paradigm is to be changed, it must be changed at the federal level first. Congress has enacted federal laws making marijuana manufacture, distribution, and possession a criminal offense and, in the process, rendering any contrary state laws superfluous.³⁰⁶

Substances Act are preempted.”); Keller, *supra* note 14, at 568 (“Many states . . . are trying to capitalize on the new industrial hemp market Despite the growing interest and action taken by the states, federal law preempts all legislation they have passed.”).

304. See *Monson v. DEA*, 522 F. Supp. 2d 1188, 1202 (D.N.D. 2007) (“The undersigned is aware of recent efforts in Congress to exclude industrial hemp from the definition of ‘marijuana’ as defined under the Controlled Substances Act.”), *aff’d*, 589 F.3d 952 (8th Cir. 2009); Pringle, *supra* note 77, at 75 (“More work by Congress will be required, but the farm bill demonstrates that it is possible.”).

305. See, e.g., *Monson*, 522 F. Supp. 2d at 1200 (“The fact that the North Dakota Legislative Assembly has chosen to regulate the growth of Cannabis in a manner contrary to federal law does not change its status as a Schedule I controlled substance under federal law.”); *cf.* Letter from Jack Conway, *supra* note 223, at 6 (noting that Kentucky’s industrial hemp statute “only allows for the growth of industrial hemp after it has been legalized by a change in federal law”). See generally Keller, *supra* note 14, at 564 (“[T]he DEA has refused to grant any permits, which . . . effectively voids any efforts the states have taken to legalize industrial hemp.”).

306. *Mont. Cannabis Indus. Ass’n v. Montana*, 286 P.3d 1161, 1172 (Mont. 2012) (Nelson, J., dissenting); see also Sam Kamin, *The Limits of Marijuana Legalization in the States*, 99 IOWA L. REV. BULL. 39, 48 (2014) (“[T]he states are trying to legalize that which it is not within their power to legalize. The only solution to the conundrum is a change in federal law; so long as marijuana remains illegal under the Controlled Substances Act, state marijuana policy will inevitably be frustrated.”).