

INDUSTRIAL HEMP: A REVIEW OF THE GROWING INDUSTRY

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I. INTRODUCTION

The 2018 Farm Bill and subsequent legislation has forever altered the production of hemp in a way that will allow a new industry to grow in the United States.¹ The 2018 Farm Bill allows the commercial production of hemp.² With this in mind, the rules and regulations adopted on hemp production by the states and federal government are extensive and subject to changes. Therefore, this Note will focus on the important regulations of hemp production as applied to farmers in Iowa and throughout the country. Currently, sales of hemp products in the United States marketplace are estimated at “more than \$700 million annually, and this market is expected to grow at a 10% to 20% rate.”³ This legislation opens an incredible opportunity for hemp farmers to grow the product legally and profit off of the same. In addition, this allows manufacturers to obtain hemp from farmers within the United States to lower their overall production costs. Even though the government action is a step in the correct direction, the hemp industry is going to be highly regulated for years to come.⁴ At this point, the 2018 Farm Bill sets the outer limits and guidelines of implementation, with the United States Department of Agriculture (USDA) imposing a more narrow and specific regulatory scheme.⁵ The USDA has enacted an Interim Rule in response to the 2018 Farm Bill for states to follow regarding their own regulatory schemes to hemp production.⁶ Once submitted, state regulations are subject to approval from the USDA.⁷ Iowa has submitted their proposal at this time, which will likely be substantially approved, making it subject to analysis.⁸ Even with the unknowns of approval and future change to the regulations, the information available helps guide our understanding of how this industry is going to transform and how farmers and states should transform with it.⁹

First, this Note will provide definitional information on industrial hemp to

1. See generally *Industrial Hemp*, USDA: NAT'L INST. OF FOOD AND AGRIC., <https://perma.cc/HR9T-3GXZ> (archived June 22, 2020) [hereinafter *Industrial Hemp*, USDA].

2. John Hudak, *The Farm Bill, hemp legalization and the status of CBD: An Explainer*, BROOKINGS (Dec. 14, 2018), <https://perma.cc/N2AT-UCZX>.

3. *Ranking Member Stabenow Opening Statement at Hearing on Hemp Production and the 2018 Farm Bill*, U.S. SENATE COMMITTEE ON AGRIC. NUTRITION & FORESTRY, (July 25, 2019) (statement of Ranking Member Stabenow), <https://perma.cc/GQ3F-BRLD>.

4. Hudak, *supra* note 2.

5. Agriculture Improvement Act of 2018, S. 3042, 115th Cong. § 10111 (2018).

6. See generally Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. 58,522 (Oct. 31, 2019) (to be codified at 7 C.F.R. pt. 990).

7. Agriculture Improvement Act of 2018 § 10111.

8. IOWA ADMIN. CODE r. 4842C (2020).

9. Agriculture Improvement Act of 2018 § 10111.

lay the framework for understanding the law. Second, a history of industrial hemp production in the United States will be provided, including how the 2018 Farm Bill has proscribed new standards for hemp production.¹⁰ Third, a review of the USDA's Interim Final Rule (Interim Rule), as applied to the states, will be analyzed.¹¹ Fourth, this Note will provide an in-depth look at Iowa's proposed regulations.¹² Finally, this Note will recommend how states and farmers may prepare a proactive approach to understanding the law and how to continue to improve the processes related to industrial hemp programs and their implementation.

II. WHAT IS INDUSTRIAL HEMP?

Most people, and rightly so, associate industrial hemp with marijuana. Even though "industrial hemp and marijuana are both varieties of cannabis," they have genetic differences making them unique in what they provide.¹³ "By definition, industrial hemp is high in fiber and low in active tetrahydrocannabinol (THC), the psychoactive ingredient in marijuana that makes some cannabis varieties a valued drug."¹⁴ Because of this, industrial hemp is grown for the fiber, oilseed, or both and is used in more than 25,000 products worldwide.¹⁵ "Marijuana generally refers to the psychotropic drug" which is cultivated for medicinal or recreational purposes.¹⁶ In addition, industrial hemp contains not more than 0.3% of THC concentration, which can be present in marijuana up to thirty percent.¹⁷ The similarities in genetics and the level of research that still needs to be conducted on marijuana and hemp is the driving force behind past and future federal policies.¹⁸ But, it is important to initially differentiate between industrial hemp and marijuana to understand why the policies for hemp have transformed when marijuana policies

10. *See generally* CONG. RESEARCH SERV., DEFINING HEMP: A FACT SHEET (archived June 22, 2020), <https://perma.cc/886G-CNH4> [hereinafter DEFINING HEMP]; Statement of Principles on Industrial Hemp, 81 Fed. Reg. 53,395, 53,395 (Aug. 12, 2016).

11. *See generally* Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. 58522.

12. *See generally* IOWA ADMIN. CODE r. 4842C.

13. DEFINING HEMP, *supra* note 10, at 5.

14. *Industrial Hemp*, AGRIC. MARKETING RES. CTR., <https://perma.cc/8CEA-J2WC> (archived June 22, 2020).

15. RENEE JOHNSON, CONG. RESEARCH SERV., HEMP AS AN AGRICULTURAL COMMODITY 2 (June 22, 2020), <https://perma.cc/H3YP-WA99>.

16. *Id.*

17. *Id.* at 3; *Industrial Hemp*, *supra* note 14.

18. *See generally* Agriculture Improvement Act of 2018, S. 3042, 115th Cong. § 10111 (2018); Statement of Principles on Industrial Hemp, 81 Fed. Reg. 53,395, 53,395 (Aug. 12, 2016); DEFINING HEMP, *supra* note 10.

have not.

III. HISTORY OF INDUSTRIAL HEMP

Until recently, industrial hemp production in the United States had been stagnated by federal government regulation.¹⁹ The history of industrial hemp in the United States revolves around the distinction between hemp and marijuana.²⁰ The definition started in a primitive state under the Controlled Substances Act of 1970, but has been revolutionized in the Agricultural Act of 2014 (2014 Farm Bill) and the Agriculture Improvement Act of 2018 (2018 Farm Bill).²¹ This change to federal policy is seemingly the result of a better understanding of what industrial hemp, as opposed to marijuana, may offer to the United States. Therefore, it is vital to understand where the United States has been in order to understand where we currently are and may end up.

A. *Controlled Substances Act of 1970*

The Controlled Substances Act of 1970 adopted a broad definition encompassing all parts of *Cannabis sativa* L., no matter the precise genetic makeup of the plant.²² In addition, jurisdiction over the production of the plant remained within federal control and severely limited how or if the crop could be grown.²³ Thus, the regulations adopted under this Act controlled marijuana and hemp without distinction, limiting any potential growth of the two industries separately.²⁴

B. *Agricultural Act of 2014*

The 2014 Farm Bill was the first step in correcting the distinction between industrial hemp and marijuana. Under this Bill, a definition of industrial hemp was adopted to mean “a part” of the plant *Cannabis sativa* L. that does not contain more than 0.3% THC.²⁵ This is the widely accepted definition of hemp and continues to be used under the 2018 Farm Bill.²⁶ However, under the 2014 Farm Bill, industrial hemp was still considered a Schedule 1 controlled substance, subjecting hemp to

19. *See generally id.*

20. *See generally id.*

21. *See generally id.*

22. DEFINING HEMP, *supra* note 10, at 13; Hudak, *supra* note 2.

23. DEFINING HEMP, *supra* note 10, at 13.

24. *See generally id.*

25. Statement of Principles on Industrial Hemp, 81 Fed. Reg. 53,395, 53,395 (Aug. 12, 2016).

26. Hudak, *supra* note 2.

United States drug laws.²⁷ Because of this, the Drug Enforcement Agency (DEA) had to approve all imports of hemp seeds coming into the country to ensure they meet the stringent requirements.²⁸ Even with these limitations, the 2014 Farm Bill is instrumental to the growth of industrial hemp. The bill provides “the growth and cultivation of industrial hemp may only take place in accordance with an agricultural pilot program to study the growth, cultivation, or marketing of industrial hemp”²⁹ Like most federal laws, the states where these institutions are located must have passed a bill allowing for this type of industrial hemp research.³⁰ This research specific provision provides certain limited state departments or higher education institutions to conduct industrial hemp research relating to the viability of the product.³¹ The 2014 Farm Bill, however, did not allow industrial hemp to be cultivated commercially.³² The 2014 Farm Bill seems to be calculated to lay the framework for possible future expansion of the industrial hemp industry (i.e. 2018 Farm Bill). We are seeing the result of research-based programs in the 2018 Farm Bill and USDA Interim Rule.

C. 2018 Farm Bill

Because of the framework laid by the 2014 Farm Bill, the Federal government passed the 2018 Farm Bill.³³ The 2018 Farm Bill changed the outlook for industrial hemp farmers in the United States by legalizing the commercial production of hemp.³⁴ It is still important to understand that farmers are not allowed to produce hemp unless affirmative action is taken by the state in which the farmer is located. The discussion of the 2018 Farm Bill will be based upon the broad concepts, with a more narrow discussion being left to the Interim Rule.

The 2018 Farm Bill has made five substantial changes, including: re-classification of hemp; allowance of commercial hemp cultivation; importation of hemp seeds; interstate transfer of hemp products; and allowance for insurance.³⁵ It

27. DEFINING HEMP, *supra* note 10, at 15.

28. *Id.*

29. Statement of Principles on Industrial Hemp, 81 Fed. Reg. at 53,395.

30. *State Industrial Hemp Statutes*, NAT'L CONF. OF ST. LEGISLATURE (Apr. 16, 2020), <https://perma.cc/F22S-CWW9>.

31. Statement of Principles on Industrial Hemp, 81 Fed. Reg. at 53,395; *see also* CONG. RESEARCH SERV., THE 2018 FARM BILL (P.L. 115-334): SUMMARY AND SIDE-BY-SIDE COMPARISON 35, <https://perma.cc/399Y-MY5A> (archived June 22, 2020) [hereinafter THE 2018 FARM BILL].

32. Statement of Principles on Industrial Hemp, 81 Fed. Reg. at 53,395.

33. Agriculture Improvement Act of 2018, S. 3042, 115th Cong. § 10111 (2018).

34. Hudak, *supra* note 2.

35. Agriculture Improvement Act of 2018 § 10111.

must be noted, there are similarities between the two farm bills. One major similarity is the continuance of research institutions as defined in the 2014 Farm Bill.³⁶ Another similarity is how the 2018 Farm Bill adopts the same definition of hemp as “the plant *Cannabis sativa* L. and any part of that plant . . . with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent”³⁷ Even though there are many similarities between the two bills, the differences are the focus of this Note. The major difference between the 2018 Farm Bill and the Interim Rule, released October 29, 2019, and those prior, is the allowance of commercial production of hemp.³⁸ A more narrow focus will be required for the differences in the substantial restrictions on commercial hemp farmers.

First, the 2018 Farm Bill reclassified hemp by removing it from the Schedule 1 Controlled Substances Act.³⁹ This classification provides legal protection for individuals possessing hemp (if these individuals meet certain requirements).⁴⁰ Aside from that, if the hemp grown contains more than 0.3 percent THC, there is no protection under federal law.⁴¹ If the acceptable THC amount is not achieved, farmers must destroy the crop, or penalties will result.⁴² Most farmers may see this as a risky line to walk and may not be able to justify hemp production because of the unknowns.

Second, the Secretary of Agriculture shall have sole authority to issue federal regulations and guidelines that relate to the implementation.⁴³ The Bill requires state agencies to prepare their own plans for regulation of industrial hemp and submit them to the Secretary of the USDA to be approved.⁴⁴ These regulations will need to provide for testing the concentration of THC, disposing of products that violate the 0.3% limit, and procedures for assessing violations.⁴⁵ After the regulation programs are submitted to the USDA, they have 60 days to approve or deny the state program.⁴⁶ Therefore, this is going to be a shared regulatory program between the federal government and the states.⁴⁷

36. *Industrial Hemp*, USDA, *supra* note 1.

37. Agriculture Improvement Act of 2018 § 10111-297A(1).

38. *See generally id.*

39. *Id.* at 10111-297B.

40. Hudak, *supra* note 2.

41. *Id.*

42. Agriculture Improvement Act of 2018 § 10111-297B.

43. *Id.* at § 10111-297B(a)(1).

44. *Id.* at § 10111-297B(a)(2)(A).

45. *Id.* at § 10111-297B(a)(2)(A)(i)-(iv).

46. *Id.* at § 10111-297B(b).

47. Hudak, *supra* note 2.

The third main progression of the 2018 Farm Bill is the mobility of hemp seeds prior to and after farming for production purposes.⁴⁸ The federal bill has altered the procedure for allowing hemp seeds to be imported to the country.⁴⁹ At this point, the USDA is going to regulate the importation of hemp seeds to ensure they meet the appropriate regulations.⁵⁰ This is an important provision because, as a result of the re-classification of hemp, there are likely not enough hemp seed producers in the United States to meet the inevitable demand for commercial industrial hemp production.⁵¹ However, the bill does not change the exportation of hemp and leaves it open to change if there is sufficient interest.⁵² In addition to making the accessibility of seeds easier, the 2018 Farm Bill allows for the transfer of hemp across state lines.⁵³ Obviously, it is important for farmers to have the ability to transfer their product over state lines to the appropriate manufacturer. The impact of these regulations may cause difficulty for certification of hemp seeds at the border because of the pure volume of seeds entering the United States marketplace.

In response to the risks farmers are taking by investing into the product, “the 2018 Farm Bill adds hemp to the *eligible crops* for federal crop insurance subsidies (Sections 11101 and 11119) and also adds hemp to the list of crops whose policies may cover post-harvest losses (Section 11106).”⁵⁴ In the past, coverage of post-harvest losses was limited to potatoes, sweet potatoes, and tobacco.⁵⁵ This provision seems to address potential worries among farmers about producing a new product under stringent regulations. Specifically, if they cannot get the appropriate insurance to cover product that exceeds 0.3% hemp. At this time, it is unclear whether the insurance will cover a farmer who must destroy his crop for not adhering to the 2018 Farm Bill and Interim Rule.

Another important aspect of the 2018 Farm Bill is the continued research into the product.⁵⁶ “In amending and expanding a provision in the 2014 farm bill (Section 7606, P.L. 113-79), the Secretary is directed to conduct a study of hemp production pilot programs to determine economic viability of domestic production

48. Agriculture Improvement Act of 2018 § 10111-297B.

49. *Id.*

50. *Id.*

51. *Id.*

52. Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. 58,522, 58,522 (Oct. 31, 2019) (to be codified at 7 C.F.R. pt. 990).

53. Agriculture Improvement Act of 2018 § 10111-297B.

54. THE 2018 FARM BILL, *supra* note 31, at 30.

55. *Id.*

56. *See id.* at 25.

and sale of hemp.”⁵⁷ This research provision expressly directs continued research efforts to learn more about the future implications of industrial hemp. In many ways, research is the most important aspect of learning about hemp and any new industry. Research has allowed the United States to get to a point where commercial industrial hemp farming is legal,⁵⁸ and continued research will teach us about ways to improve farming the product and implementing regulations.

In summary, the 2018 Farm Bill has provided guidance to the states for implementing regulatory programs.⁵⁹ First, the 2018 Farm Bill has removed hemp as a Schedule I Controlled Substance and provides the USDA power in approving all state plans submitted to them.⁶⁰ Also, the 2018 Farm Bill allows the USDA to control the importation of seeds and allows the transfer of industrial hemp in interstate commerce.⁶¹ Finally, the 2018 Farm Bill recommends states to continue to implement research initiatives to learn more about the product.⁶² These factors, and many others, are expanded upon in the Interim Rule released in October 2019.

IV. CURRENT OUTLOOK

A. Interim Rule

In accordance with the 2018 Farm Bill, the USDA has released an “Interim Final Rule.”⁶³ Because the report was recently released, it is still subject to changes that may be made prior to becoming published in the Federal Register.⁶⁴ Prior to being published, there is a comment period for interested persons.⁶⁵ After this period, and within two years of the publication of the Interim Rule, the USDA will draft and publish a final rule based upon further information received.⁶⁶ In effect, the USDA is going to operate under this Interim Rule until they publish a final rule,⁶⁷ but it is likely substantial changes will not occur. The USDA has begun to

57. *Id.* at 25.

58. *See* Agriculture Improvement Act of 2018 § 10111; *see also* DEFINING HEMP, *supra* note 10, at 5.

59. *See generally* Agriculture Improvement Act of 2018 § 10111.

60. *Id.*

61. *Id.*

62. *Id.*

63. *See generally* Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. 58,522 (Oct. 31, 2019) (to be codified at 7 C.F.R. pt. 990).

64. *Id.* at 58,522.

65. *Id.*

66. *Id.*

67. *Id.*

review state submitted plans and issue licenses.⁶⁸ The final rule will be formulated based upon feedback from states and further advances in technology during the time the Interim Rule is in place.⁶⁹

Even though the final publication may be different from the Interim Rule,⁷⁰ the substantive text is likely to remain similar upon publication. This rule follows directly from what is described above regarding the 2018 Farm Bill.⁷¹ In addition, the Interim Rule gives an in depth outline of what will be expected of plans submitted by states to the USDA.⁷² Some of the key issues states will need to address under the recently released interim regulations include: “maintaining information on the land on which hemp is produced, testing the levels of delta-9 tetrahydrocannabinol, disposing of plants not meeting necessary requirements, licensing requirements, and ensuring compliance with the requirements of the new part.”⁷³ Because this is the first of many hemp production rules, the Interim Rule and future rules will undoubtedly refine the requirements expected of state programs in a way that makes it easier for hemp producers and manufacturers to operate their businesses throughout the United States.

1. Land Identification

First, states will need to organize a system for identifying the land used for production of hemp.⁷⁴ The legal description and geospatial location of the land and the acreage used to produce hemp must be reported to the Farm Service Agency (FSA).⁷⁵ This is a straightforward procedure and most farmers’ acreage and/or legal information has been collected by the FSA from other crops.⁷⁶ However, farmers in America should take caution and make sure their farms are specifically registered for the production of hemp because of the stringent regulations and the similarities between hemp and marijuana.

2. Testing Procedures

Next, and more complicating, state “plans must incorporate procedures for sampling and testing hemp to ensure the cannabis grown and harvested does not

68. *Id.* at 58,547.

69. *Id.* at 58,543.

70. *Id.* at 58,522.

71. *See generally id.*

72. *See generally id.*

73. *Id.*

74. *Id.* at 58,523.

75. *Id.*

76. *See id.*

exceed the acceptable hemp THC level.”⁷⁷ The “representative sample” of hemp must be taken from the farm to a “DEA-registered laboratory for testing” within 15 days of harvesting the crop.⁷⁸ The Interim Rule gives 15 days because there may be unforeseen mechanical issues or weather that delays the harvesting process.⁷⁹ Even though they built in a harvesting buffer within the rule,⁸⁰ this is still a short time and some farmers could be out of luck or take substantial risks to get the product out of the ground. If the farmers wait longer than 15 days, the hemp will likely be above 0.3% THC, forcing them to destroy the entire crop.⁸¹

The USDA has provided testing guidelines for identifying the THC concentration in hemp (for more information, please visit <https://www.ams.usda.gov/sites/default/files/media/TestingGuidelinesforHemp.pdf>).⁸² However, for purposes of this Note, farmers will need to understand the testing procedures exist and what the reports mean for compliant crops.⁸³ These procedures require the THC concentration to be at or below 0.3%, but also that the testing guidelines provide there be a “measurement of uncertainty” within the testing procedures conducted by the state departments.⁸⁴ The measurement of uncertainty, or margin of error, of the testing must include 0.3% THC within that margin.⁸⁵ This means a range of 0.33% to 0.37% THC would be considered marijuana under the definition given by the federal government, but a range of 0.29%-0.41% THC would be considered hemp.⁸⁶ Hemp farmers should be aware of the procedures and understand what the results mean, as the closer to 0.3% THC the results are, the closer the hemp is to becoming marijuana. The procedures used by state departments should remain on the mind of hemp farmers so the farmers are able to understand what a report means.

77. *Id.* at 58,524.

78. *Id.*

79. *Id.*

80. *Id.*

81. *Id.*

82. *See generally* USDA, TESTING GUIDELINES FOR IDENTIFYING DELTA-9 TETRAHYDROCANNABINOL (THC) CONCENTRATION IN HEMP, <https://perma.cc/VQY5-QH8K> (archived June 22, 2020) [hereinafter TESTING GUIDELINES].

83. *See generally* Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. 58,522.

84. *Id.*

85. *Id.* at 58,525.

86. *Id.*

3. Importation and Exportation of Seeds

Industrial hemp farming requires farmers to use seeds which pass certification standards.⁸⁷ As discussed previously, the 2018 Farm Bill allows interstate transportation and shipment of hemp in the United States.⁸⁸ This includes both hemp seeds and the finished hemp product. At this time, there are very few seed certification companies within the United States.⁸⁹

For the time being, and because of the increase of hemp farmers in the United States, farmers are left with the option of importing seeds from countries outside the United States. The USDA, through the “Animal and Plant Health Inspection Service (APHIS) regulates the importation of all plants and seeds for planting to ensure safe agricultural trade.”⁹⁰ Requirements of seed certification are divided between two categories: importing hemp seed from Canada; and importing hemp seed from countries other than Canada.⁹¹ The seeds from Canada need to be accompanied by either a phytosanitary certification from the national plant protection organization of the country or a Federal Seed Analysis Certificate for hemp seeds harvested in Canada.⁹² Seeds from other countries need the same phytosanitary certification, but they will be inspected at the entry port to ensure they are free from plant pests.⁹³ Even though most seeds received by farmers will have these certifications, it will be useful to make sure the seeds have passed the requirements.

Contrastingly, the Interim Rule does not address the exportation of hemp, but allows expansion into this market if the interest is great enough.⁹⁴ It is likely the interest will be high in the future once the United States begins to expand into the market. It seems likely the demand for the importation of hemp seeds will decrease and the exportation will increase with the advancements of technology, knowledge, and sheer growth of the number of industrial hemp farmers within the United States.

87. *Id.* at 58,522.

88. *Id.* at 58,523.

89. *See generally* *Seeds*, HEMP TODAY, <https://perma.cc/HJR6-QEAT> (archived June 22, 2020).

90. *Hemp Seeds and Plants*, USDA: ANIMAL & PLANT HEALTH INSPECTION SERV., <https://perma.cc/2S2K-886Y> (archived June 22, 2020).

91. *Id.*

92. *Id.*

93. *Id.*

94. *See generally* Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. 58,522 (Oct. 31, 2019) (to be codified at 7 C.F.R. pt. 990).

4. *Non-Compliance*

Fourth, the Interim Rule requires annual inspections and disposal of non-compliant plants of hemp producers.⁹⁵ Hemp producers must allow an agency to review their practices on a periodic basis to ensure compliant planting.⁹⁶ “State and Tribal plans must include compliance procedures to ensure hemp is being produced in accordance with the requirements” of the Interim Rule.⁹⁷ This must include, at a minimum, annual inspections of hemp producers to verify there is no violation.⁹⁸ State and Tribal plans may have more restrictions or additions, but they must “include a procedure for handling violations.”⁹⁹

If a hemp farmer has produced a product which does not fall within the range (a number at or below 0.3% THC) as discussed above, the product will be considered marijuana under the federal government’s definition.¹⁰⁰ “The Rule unequivocally requires the destruction of all plants exceeding the acceptable hemp THC level.”¹⁰¹ The express language is an absolute requirement of all state proposed plans. This is contrary to the proposals of hemp advocates as they believe hemp exceeding the acceptable levels should be used for other purposes.¹⁰² The express limitation may be relaxed in the future, but it is probable that the drafters wish to learn more about the production before implementing such a measure.

If hemp producers do not dispose of the plants properly or produce a plant exceeding certain levels of THC, the producers may be penalized or have their license to grow hemp revoked.¹⁰³ The Interim Rule “specifies that hemp producers do not commit a negligent violation if they produce plants that exceed the acceptable hemp THC level and use reasonable efforts to grow hemp and the plant does not have a THC concentration of more than 0.5 percent on a dry weight basis.”¹⁰⁴ A corrective action plan must be in place including “a reasonable date by which the producer will correct the negligent violation.”¹⁰⁵ In addition, the producer must periodically report to the agency for at least two years following the

95. *Id.* at 58,525-6.

96. *Id.*

97. *Id.*

98. *Id.* at 58,526.

99. *Id.*

100. *Id.* at 58,525.

101. J. Hunter Robinson et al., *USDA Issues Long-Awaited Interim Hemp Rule to Implement Farm Bill*, BRADLEY (Nov. 4, 2019), <https://perma.cc/TFK7-849L>.

102. *Id.*

103. Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. at 58,526.

104. *Id.*

105. *Id.*

violation to ensure appropriate measures are being taken.¹⁰⁶ Upon three negligent violations within a five year period, the hemp producer will be suspended from production for five years.¹⁰⁷ It is crucial to follow procedures in the event a farmer produces hemp with more than 0.3% THC.

The Interim Rule also provides for hemp produced in excess of 0.5% THC.¹⁰⁸ Any hemp product above 0.5% THC concentration is not considered a mere negligent violation. The producer will be subject to penalties, revocation of license, or criminal action—including notification to the USDA of the violation.¹⁰⁹ Additionally, any person who is a convicted felon will be prohibited from participating in the program.¹¹⁰ In order to avoid involvement by law enforcement, producers should use extreme caution when producing industrial hemp.

Like the other aspects of the Interim Rule, non-compliance is open to public comment to determine if there are other considerations needed for the final rule.¹¹¹ The Interim Rule recognizes the requirements from one state to another may be significantly different, but the minimum thresholds must be met across the board to avoid federal action.¹¹²

The Interim Rule provides more structure for State and Tribal agencies to form plans for industrial hemp production.¹¹³ In-depth guidelines and rules for State and Tribal programs include: structuring an agency for handling hemp requests; licensing requirements; land descriptions; importation and exportation of certified seeds; procedures for testing hemp products; and compliance standards, including guidelines for violations.¹¹⁴ These important provisions will be refined and advanced as more knowledge is gathered on the industrial hemp industry, but States and Tribal plans have a baseline to follow in the near future.¹¹⁵

106. *Id.*

107. *Id.*

108. *Id.*

109. *Id.*

110. *Id.*

111. *Id.*

112. *Id.*

113. *See generally id.* at 58,522.

114. *See generally id.*

115. *See generally id.*

B. State Initiatives

As highlighted above, state departments of agriculture will need to devise a regulatory scheme and submit the same to the USDA.¹¹⁶ In areas where hemp production is legal, but there is no plan in place, the USDA has provided a plan for producers to adhere to.¹¹⁷ This plan includes an application process, how to receive hemp producer licenses, sampling and testing for THC, disposal of non-compliant product, compliance requirements, procedures for violations, reporting for record keeping, and information sharing.¹¹⁸ This Note will focus on the similarities and differences between the USDA plan and Iowa's plan.¹¹⁹

Before a state devises a plan, the state needs to pass a law in alignment with the 2018 Farm Bill. At this time, forty-seven states have enacted hemp policies allowing cultivation of hemp for commercial, research, or pilot programs in response to the 2014 Farm Bill or the 2018 Farm Bill.¹²⁰ Idaho, Mississippi, and South Dakota are the only three states which do not allow cultivation of hemp in any way.¹²¹ Many of the statutes approved after the 2014 Farm Bill and before the 2018 Farm Bill fall directly in line with the restrictive language of the 2014 Farm Bill.¹²² For example, Illinois passed a bill in 2016 which "creates an industrial hemp pilot program that allows the Illinois Department of Agriculture or state institutions of higher education to grow hemp for research purposes."¹²³ For more information on a specific state's laws, researching the respective state's department of agriculture will be a useful beginning.

Iowa is one of the states that has passed a bill authorizing production of industrial hemp and subsequently filed their proposed plan with the USDA on December 11, 2019.¹²⁴ The USDA has approved Iowa's plan.¹²⁵ However, hemp production in the state and almost all other states "will likely not be legalized until

116. Agriculture Improvement Act of 2018, S. 3042, 115th Cong. § 10111-297B(a)(1) (2018).

117. See Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. at 58,528-31.

118. *Id.*

119. See *Hemp Laws by State*, HEMPTOPIA, <https://perma.cc/9BMC-RD5X> (archived June 22, 2020); see also *State Industrial Hemp Statutes*, *supra* note 30.

120. *Id.*

121. *Id.*

122. See *id.*

123. *State Industrial Hemp Statutes*, *supra* note 30.

124. See *Iowa's Hemp Law*, IOWA DEPT. OF AGRIC. & LAND STEWARDSHIP, <https://perma.cc/828C-ACKP> (archived June 22, 2020).

125. Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. 58,522, 58,527 (Oct. 31, 2019) (to be codified at 7 C.F.R. pt. 990).

the 2020 growing season at the earliest.”¹²⁶ It is unclear how long the state will take to be able to implement the procedures proposed, but will likely try to get the process going as soon as possible. It is important to understand, for Iowa farmers, the “law legalizes the production, processing and marketing of many, but not all hemp products,” but “does not legalize the recreational use of marijuana nor the over-the-counter sale of CBD.”¹²⁷ Even though this may happen in the future, it is too early to speculate upon these considerations. Therefore, this section will analyze the requirements set out by the State of Iowa.

The plan submitted by the Iowa Agriculture and Land Stewardship Department is subject to change by the USDA’s future regulations.¹²⁸ Even so, this rule currently “includes provisions for maintaining information on the land where hemp is produced, testing the levels of delta-9 tetrahydrocannabinol, disposing of plants not meeting necessary requirements, establishing licensing requirements, and ensuring compliance with the requirements of the Agriculture Improvement Act of 2018”¹²⁹ This report was designed to adhere to the 2018 Farm Bill and subsequent legislation, but there are “further restrictions found in 2019 Iowa Acts, Senate File 599.”¹³⁰

1. Licensing

First, the agency rule addresses the licensing requirements for applicants within Iowa.¹³¹ Beginning in 2021, licensees must submit outdoor crop applications prior to April 15, while indoor crop applications may be submitted at any time.¹³² This application must include all information on the person applying and the methods the person intends to employ.¹³³ Included within the application, the applicant must provide fingerprints to have a national background check conducted for review of possible disqualifying offenses, at the expense of the applicant.¹³⁴ It must be noted that a licensee will have to report any offenses to the agency within a certain amount of time.¹³⁵ Getting a license will be the first of many hurdles for a hemp producer.

126. *See Iowa’s Hemp Law, supra* note 124.

127. *Id.*

128. IOWA ADMIN. CODE r. 4842C (2020).

129. *Id.*

130. *Id.*

131. *Id.* at 4842C-96.2(204).

132. *Id.* at 4842C-96.2(3).

133. *Id.* at 4842C-96.2(5).

134. *Id.* at 4842C-96.2(6).

135. *Id.* at 4842C-96.3(204).

2. Reporting

In addition to license applications, hemp producers will need to provide the agency with most, if not all of the following: an outdoor or indoor planting report; preharvest report; postharvest report; destruction report; drug felony conviction report; hemp acreage report; and a voluntary destruction report.¹³⁶ These reports must be submitted with the representative's name, license number, and certain harvest information within a certain period of time before planting, before harvesting, after harvesting, and after destruction.¹³⁷ This information is designed to provide the agency with notice of who, where, and how hemp is being farmed within the state, but seemingly could be quite a burden on hemp producers.

3. Fees

Next, hemp producers must be aware of the fees associated with hemp applications and testing samples.¹³⁸ These fees are entirely separate of costs incurred from implementing hemp production on hemp producers' farms. This is more of a personal inquiry and will not be discussed in depth. The main fees associated with the hemp process will be based upon how many acres are farmed.¹³⁹ As discussed previously, a maximum amount of 40 acres is allowed for hemp producers.¹⁴⁰ The more acres farmed also results in a higher number of plants being sampled, causing costs to increase even further.¹⁴¹ All fees are nonrefundable, so hemp producers must understand and commit to the process prior to applying.¹⁴² The license fees per crop site will be \$500.00 for zero to five acres, \$750.00 for 5.1 to ten acres, and \$1,000.00 for 10.1 to forty acres, plus \$5.00 per every acre.¹⁴³ A \$1,000.00 primary fee per sample taken must be paid prior to preharvest inspection and if a farmer requests further sampling, a \$500.00 primary supplemental fee will result.¹⁴⁴ Even more fees will be assessed if a hemp producer wants to have further tests completed.¹⁴⁵ These fees seem costly at first glance, but may be worth it if the hemp producer establishes a fruitful harvest and stable techniques.

136. *Id.* at 4842C-96.4(204).

137. *Id.* at 4842C-96.4(2)(a)-(d).

138. *See generally id.* at 4842C-96.2(204).

139. *Id.* at 4842C-96.5(1).

140. *Id.* at 4842C-96.2(204).

141. *Id.* at 4842C-96.5(2)-(3).

142. *Id.* at 4842C-96.5(1).

143. *Id.* at 4842C-96.5(1).

144. *Id.* at 4842C-96.5(3).

145. *Id.* at 4842C-96.5(3).

4. *Inspections*

Additionally, there will be inspections of the crop sites and the crops to ensure licensure compliance.¹⁴⁶ This includes an annual inspection to complete a certification of compliance that certifies the licensee has operated in accordance with Iowa and Federal law.¹⁴⁷ During the annual inspections, the agency will have a representative take samples of hemp for the THC content.¹⁴⁸ The hemp producer must allow the agency to have “unrestricted access to the crop site” and must be present during the preharvest inspections.¹⁴⁹ This inspection will occur after the hemp producer submits their preharvest report thirty days prior to the harvest date.¹⁵⁰ If the hemp plants fall outside the measurement of uncertainty, they must be destroyed.¹⁵¹ In addition, if there are hemp plants inspected outside of the set acreage, the representative must report it to the agency or law enforcement officials for further inspection.¹⁵² Hemp producers must be very cautious and understanding of where they are planting the product to avoid involvement by law enforcement and potential revocation of the producer’s license.

5. *Testing*

After hemp is received from the crop site it will be sent to the department’s laboratory, which is the only authorized hemp testing facility in Iowa at this time.¹⁵³ As discussed previously, the test must show a 0.3% THC within the measurement of uncertainty.¹⁵⁴ If the hemp falls within the acceptable range, the agency will issue a certificate of compliance to the hemp producer saying the product may be harvested.¹⁵⁵ Prior to receiving the certificate of compliance, the producer “shall not harvest any portion of a hemp crop.”¹⁵⁶ If the hemp producer receives a certificate of compliance they will have only fifteen days to harvest the

146. *Id.* at 4842C-96.7(204).

147. *Id.* at 4842C-96.6(1).

148. *Id.* at 4842C-96.6(1).

149. *Id.* at 4842C-96.7(6).

150. *Id.* at 4842C-96.7(3).

151. *Id.* at 4842C-96.4(4).

152. *Id.* at 4842C-96.7(5).

153. *Id.* at 4842C-96.8(7).

154. Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. 58,522, 58,525 (Oct. 31, 2019) (to be codified at 7 C.F.R. pt. 990).

155. Iowa Admin. Code r. 4842C-96.6(1).

156. *Id.* at 4842C-96.9(1).

hemp.¹⁵⁷ Day one is considered to be the first day after sampling occurs.¹⁵⁸ This is a limited time and may be acceptable, but employing the harvesting limit on hemp producers will reveal the viability.

“If any official test exceeds acceptable hemp THC concentration, the department shall notify the department of public safety, local law enforcement, and the United States Department of Agriculture (USDA) hemp administrator.”¹⁵⁹ Upon receiving a notice of non-compliance, the hemp producer must destroy the hemp.¹⁶⁰ Non-compliance is a violation and, depending on the level of THC within the hemp, is handled in accordance with the violations as described in the Interim Rule.¹⁶¹ Also similar to the Interim Rule, the hemp producer will be required to take corrective action by destroying the plant.¹⁶²

The Iowa plan gives specific guidance to the hemp producers within the state.¹⁶³ The plan allows hemp producers to understand what requirements they must adhere to and the fees associated with the requirements.¹⁶⁴ These requirements and fees should be considered with economic factors associated with actually implementing and farming the product in order for a hemp producer to properly understand the risks undertaken by entering this new market.

V. HOW DO STATES AND HEMP PRODUCERS MOVE FORWARD?

As discussed in previous sections of this paper, there are many different requirements for a hemp producer to follow in order to operate a legal hemp farm.¹⁶⁵ The numerous procedures may be a lucrative and worthwhile venture if the producers understand what they are undertaking prior to investing their time, money, and resources. Even though other plants will continue to take precedent in Iowa, hemp is a valid option as a rotation crop as it provides “helpful nutritional needs . . . to the soil.”¹⁶⁶ The opportunity for new and experienced farmers hardly needs to be stated, and the remainder of this Note will not discuss that opportunity.

157. *Id.* at 4842C-96.9(3)a (2020); Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. at 58,556.

158. Iowa Admin. Code r. 4842C-96.9(3).

159. *Id.* at 4842C-96.10(2).

160. *Id.* at 4842C-96.2(5).

161. Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. at 58,526.

162. *Id.*

163. *See generally* Iowa Admin. Code r. 4842C.

164. *See generally id.*

165. *See generally id.*; Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. at 58,522; Agriculture Improvement Act of 2018, S. 3042, 115th Cong. § 10111 (2018).

166. Olivia Kulander, *Hemp as a Rotation Crop*, BOOJUMGROUP (Dec. 31, 2018), <https://perma.cc/PF7F-4SWX>.

However, understanding the intricacies of how to properly navigate the industry will be addressed thoroughly.¹⁶⁷

The question remains: How should states and hemp producers handle the new industry and inevitable growth of hemp? The process for state agencies and hemp producers will be different, but each party will be able to provide information to one another.

A. State Agencies

The first discussion must be the next steps for state agencies. State agencies must continue to adapt to the rapidly changing new industry. Without a proactive approach to furthering administrative approaches, Iowa, and other states, will fall behind advancements in the industry. The first step in Iowa, and all other states that do not have research programs, is to establish these programs.¹⁶⁸ It is conceded, however, in the Interim Rule that research is still in a primitive state and “the same seeds grown in different geographical locations and growing conditions can react differently.”¹⁶⁹ Therefore, states should learn from current research programs, but attempt to maintain focus on their geographic area. Gathering this knowledge will help states streamline their processes towards gaining an edge in the market.

In addition, these institutions must gather as much information as possible from hemp producers and provide guidance to potential hemp producers because it is unknown what types of seed will be productive within the state.¹⁷⁰ It is also unknown how hemp producers will handle the requirements outlined in Iowa law. Iowa should look to states like Colorado, Kentucky, Minnesota, and any other state that has adopted an aggressive approach to hemp production.¹⁷¹ These states are a step ahead in implementing hemp production and seemingly have more knowledge. Learning from these states will be a vital first step, but state agencies may gain the most information from a trial and error approach with research institutions and individual hemp producers within the state.

Next, in addition to establishing a research program, the states will have to implement a system for licensing and reporting by hemp producers.¹⁷² This

167. See generally Nadra Nittle, *For Young Farmers, Hemp Is A ‘Gateway Crop’*, CIVIL EATS (Oct. 21, 2019), <https://perma.cc/5DQT-4CSG>.

168. *Hemp Laws by State*, *supra* note 119.

169. Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. at 58,524.

170. *Id.*

171. See generally KRISTEN NICHOLS, HEMP REPORT: TOP 10 U.S. STATES, <https://perma.cc/R8KM-CQ8N> (archived June 22, 2020).

172. IOWA ADMIN. CODE r. 4842C-96.4(204).

information should be reviewed and altered by the appropriate state agency. In the beginning, an analysis should be completed at least yearly to determine if there is enough time for hemp producers to submit the required reports, harvest the hemp, and destroy the crops, if necessary.

Third, the substantial increase in hemp production throughout the United States has proven difficult for farmers throughout.¹⁷³ Manufacturers making final products in other states have been struggling to meet the increased hemp production of their state.¹⁷⁴ Learning from this shortfall in other states is vital to avoid initial difficulties for Iowa hemp producers. It will be immensely helpful to hemp producers within the state to transport their product short distances. Therefore, it is equally important to understand the needs of farmers and manufacturers. For example, a lack of Iowa based manufacturers may diminish the amount of hemp producers in Iowa, which will stunt the growth of this industry. A valid possibility may be to incentivize manufacturing companies by providing tax breaks or other monetary relief for them to choose Iowa over competing states. Allowing manufacturers to incorporate within the state will bring jobs to the local economy and allow hemp producers to move their product quickly.

There are undoubtedly going to be difficulties in implementing a system with the likely increase in hemp producers.¹⁷⁵ States should analyze all the data received to help understand what difficulties are being realized. This information will likely be available through reporting requirements of the state. However, merely having this information is not going to help. The state must review the information and formulate an understanding of what difficulties hemp producers are undergoing and then implement improvements.

B. Hemp Producers

Hemp producers have a more difficult task than state agencies because “[w]e really haven’t seen any type of production since the ‘40s and ‘50s in the U.S., so this crop is almost like starting brand new.”¹⁷⁶ These producers are personally investing in a new product and industry without a lot of knowledge about how to grow the product.¹⁷⁷ Hemp farming is drastically different from other types of farming because of strict regulations stemming from the possibility that farmers will be growing a product closely related to marijuana—an illegal substance under

173. Hannah Hagemann, *Budding Hemp Farmers Struggle to Find Success in the ‘Green Rush’*, NPR (Nov. 16, 2019, 7:00 AM), <https://perma.cc/2TCB-B9HX>.

174. *Id.*

175. *Id.*

176. *Id.*

177. *Id.*

federal law.¹⁷⁸ Hemp producers must review the overall feasibility of implementation, understand the requirements of the law, and employ reliable procedures to ensure legal production. Once producers have started to farm hemp, they should maintain all records and sample information to continue to learn and establish a more efficient and productive hemp operation. The key to growth within this new industry is research prior to entering the market and learning from their past practices.

First, prospective hemp producers must determine if farming the product is a feasible option. When determining feasibility, hemp producers should understand the information below, but also gather as much information as possible through research. Research should include information provided from the producer's state, other state information, and any information from individual hemp producers. This information should include the viability of hemp as a rotation crop, market analyses, and what types of seeds to use within certain climates. At this time, there is limited information within the State of Iowa to determine whether hemp farming will be productive, but other states have been involved in hemp production for years, giving important information to states beginning hemp production.¹⁷⁹

Similar to state agencies, hemp producers should look no further than Colorado and Kentucky to learn more about the industry.¹⁸⁰ At this time it seems to be high-risk to enter the market because of the potentially limited revenue and high costs of licensing, reporting, and operation. As we know, high costs are associated with implementing hemp as a new crop, but Colorado has also seen a decline in prices for producers because of the "heavy competition in the state's hemp market."¹⁸¹ In addition, Colorado farmers, and other farmers across the United States, have seen "hemp-processing logjams" because of the lack of CBD extractors and fiber processors.¹⁸² These issues are occurring for states that have been innovators in producing hemp so it will realistically be a problem for hemp producers within newly founded hemp plans. These are just a few of the potential risks associated with entering the new market, so hemp producers are encouraged to complete further research to determine costs of seeds, machines, and other associated fees.

Second, hemp producers must know the requirements expected of them through state and federal law. As discussed previously, there are licensing,

178. Nittle, *supra* note 167.

179. *See generally* NICHOLS, *supra* note 171.

180. *Id.* at 2-3.

181. *Id.* at 2.

182. *Id.*

reporting, sampling, and destruction requirements within the federal and state law.¹⁸³ Hemp producers are encouraged to review the analysis of the 2018 Farm Bill, Interim Rule, and Iowa's law. Hemp producers must understand and evaluate the requirements of hemp laws and any subsequent hemp law to determine if they can follow the law in a productive manner. One of the main hurdles for farmers will be harvesting their crops within the fifteen-day period following the hemp certification.¹⁸⁴ The fifteen-day restriction was "designed to allow for variables such as rain and equipment delays."¹⁸⁵ Hemp producers must determine if they can meet this harvesting requirement and understand that a new certification will be needed if the plants have not been harvested prior to the fifteen-day period.¹⁸⁶ Weather related issues may force a hemp producer to destroy their entire crop at a higher expense to the producer, with no return. This process should become easier over time, as research, knowledge, and technology improve, but may be very risky in the experimental stage of hemp.

Next, hemp producers should employ reliable procedures for farming hemp. Hemp producers must follow the guidelines within state and federal law to avoid penalties, possible revocation of their license, or worse. Employing reliable procedures seems to be straightforward, but may be complicated for a producer who lacks experience. It may be wise for hemp producers to limit the amount of acreage, and simultaneously costs, in the first years of production. This allows the producer to maintain control over the limited acres while also learning about what processes should be employed in the future. Reliably applying procedures gives hemp farmers the best opportunity now and in the future.

Finally, after entering the hemp market, hemp producers will need to report basically everything about their operation.¹⁸⁷ It is important for hemp producers to maintain records of everything they have sent the agency, received from the agency, and procedurally completed during planting, harvesting, or destroying the product. This is beneficial to both the producer and the agency. The agency and the producer will gain research on how the producers are operating and what processes work or do not work. In addition, it would be helpful for the agency to provide hemp producers with beneficial information on what procedures are working to ensure viable production across the state.

183. See generally IOWA ADMIN. CODE r. 4842C; see also Statement of Principles on Industrial Hemp, 81 Fed. Reg. 53,395, 53,395 (Oct. 31, 2019) (to be codified at 7 C.F.R. pt. 990).

184. Establishment of a Domestic Hemp Production Program, 84 Fed. Reg. at 58524.

185. *Id.*

186. IOWA ADMIN. CODE r. 4842C-96.9(3).

187. See generally IOWA ADMIN. CODE r. 4842C.

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VI. CONCLUSION

In conclusion, industrial hemp production within the United States will continue to grow, but hemp producers should not be so ready to join the movement without first analyzing their individual situation to the costs and benefits discussed. First, industrial hemp production is brand new within the United States and there is still much to be learned. However, if a producer is set on producing hemp, they should research extensively the risks analyzed, and possibly not analyzed, within this Note. Second, producers must strictly abide by the requirements set forth in the state's proposed plan and/or the USDA plan. Loosely following these requirements will be detrimental to the current and future operation. Third, producers should employ reliable procedures, but as we know, this will be difficult in the beginning. Finally, once a producer has entered the market, they must continue to learn—from themselves and other sources—the rules, and document their every step.

Hemp is a confusing topic with many different possible routes for producers to follow. Understanding and following the procedures outlined will be a sufficient beginning. Maintaining high knowledge by reviewing future legislative actions is equally important. Navigating the new industry at a profitable rate is possible with extreme caution and due diligence.