

# Cash Crop or Flop?

## The Hemp Industry in Minnesota

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### Introduction:

The 2014 Farm Bill permitted industrial hemp to be grown in the form of a pilot program in order to study its potential as a fully legal consumer product. Minnesota launched an industrial hemp pilot program to do exactly as the 2014 Farm Bill had laid out. While, the 2014 Farm Bill was a major step forward, hemp remained on the list of Schedule I Narcotics. With the passing of the 2018 Farm Bill, hemp was removed from the list of Schedule 1 Narcotics and included in the crop insurance program. This is a big step forward, question still remains: How can Minnesota capitalize on the new freedoms surrounding hemp production granted by the 2018 Farm Bill? Can hemp become a significant "cash" crop in Minnesota? Can it be a crop with revenue as close to the major current crops of Minnesota, i.e. corn and soy? Can hemp see success as a sustainable agricultural resource in the state of Minnesota?



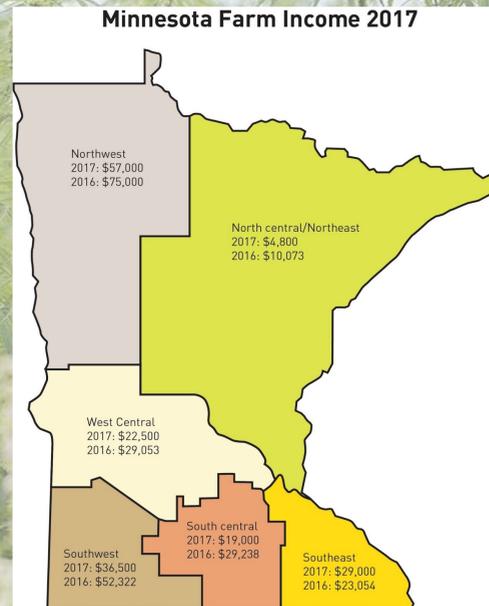
**Figure 1.** A magnified image of the hemp stalk with the bast fiber stripped. History has shown that hemp has the capability of being a resource for a variety of products and with advancements in technology, hemp's capabilities have only grown.

Source: [www.trustedclothes.com](http://www.trustedclothes.com)

### Methods:

Research for this thesis was characterized by an extensive literature review of hemp products and how they compare ecologically with their non-hemp derived counterparts. A review of the agronomic needs of hemp was also conducted to determine whether hemp has the capability of being grown on a larger scale in Minnesota. An analysis of government documents, including the 2018 Farm Bill and the Hemp Farming Act of 2018 was also examined within the literature review.

Along with the literature review, interviews were conducted with individuals involved in Minnesota's hemp industry. Their input offered an in-depth perspective on the current state of the hemp industry and the steps necessary to advance the industry to a larger scale. These individuals included Henry Erdman, a contract lobbyist for United Food and Commercial Workers Union; Harold Stanislawski, a project development director for the Agricultural Utilization Research Institute; and a lobbyist for the United Food and Commercial Workers Union.



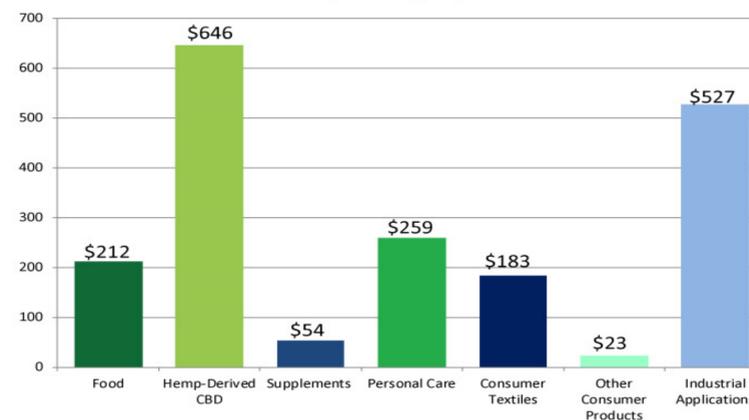
**Figure 2.** This map shows the decrease in Minnesota farm income from 2016 to 2017. With this decreased income, farmers are in need of a crop that can revitalize their production and increase their profitability. Is hemp the answer to their problem?

Source: U of M Extension News

### Product Comparisons

Hemp Fabric	Cotton Fabric	<ul style="list-style-type: none"> <li>In the United States, hemp fiber could yield up to three times per acre that of domestic cotton</li> <li>Benefits of supplementing hemp for cotton would be reduction in herbicide and pesticide use, irrigation, and nitrogen fertilizer use</li> </ul>
Hemp Paper	Wood Pulp Paper	<ul style="list-style-type: none"> <li>One acre of hemp can produce as much paper as 4-10 acres of trees over a 20 year cycle</li> <li>Hemp stalks grow in roughly 3-4 months, whereas trees take 20-80 years</li> </ul>

### \$1.9 Billion U.S. Hemp-Based Product Sales by Category in 2022e



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

### Results:

This study found that products made from hemp have ecological benefits that make them favorable over other products made from conventional resources, including cotton and timber. Hemp or CBD-based products is expected to experience huge growth in the United States consumer market. However, regulations are still in flux and must be made clearer for future investments to grow. Hemp research and funding in the U.S., and specifically Minnesota, needs to be increased to provide farmers with additional information and resources to be successful in cultivation. Businesses are interested, but are curious to see if the economics will work out for industrial hemp and its products, including textiles, paper, and composites.

### Interview Findings:

This study found similar statements made in regards to the necessity of a market for the hemp products. Harold made a major point when he stated, "Minnesota agriculture has a wonderful history meeting many challenges. So as these markets get defined for hemp fiber and food, for example, agricultural industry is going to respond and we will produce. But we don't want to get producers producing things that the market is not yet ready for."

### Conclusion:

Hemp will likely be a multi-billion dollar business by 2022. However, unless regulations in the United States become clear and easy to work with, the majority of the raw material for hemp products will come from foreign sources. While there are indeed environmental benefits to the cultivation of hemp and production of its products, in comparison to other resources, there are still questions that remain as to how beneficial hemp is to the environment. This is a result of the criminalization of the product historically. Minnesota farmers are in need of a new crop with high profit potential, hemp fits this economic need. Minnesota farmers are enthusiastic to learn about hemp and its cultivation. The hemp industry will grow in Minnesota, however, it will likely take over 10 years for it to become a significant commodity like corn or soy.