

House Agriculture and Rural Development Committee
Michael Bowman
Proponent Testimony
Senate Bill 57
April 30, 2019

Chairman Koehler, Vice Chair Smith, Ranking Member Brent, and members of the committee—my name is Michael Bowman and I am here today as an industry expert on behalf of the Ohio Hemp Association. I am a hemp farmer in Colorado, founding Chair of the National Hemp Association, and have actively been working in the hemp industry for 19 years. I applaud your efforts here in Ohio and look forward to discussing hemp policy and the opportunities for your state.

I live in Colorado, where I am active in shaping the State of Colorado's hemp policy as Chair of Colorado's New Energy Future and a board member of the North American Industrial Hemp Association. I have served as a board member of the Rocky Mountain Hemp Association, Colorado Industrial Hemp Commission, the American Renewable Energy Institute, and the Sustainable Biodiesel Alliance. We have 400 acres of hemp cultivated on the Bowman Family Farm in Wray, Colorado.

Hemp was poised to be a billion-dollar crop in the 1930s with Henry Ford a big supporter, but the Marijuana Tax Act of 1937 killed the growth of the industry. We had a brief respite during WWII with the Hemp for Victory campaign, in which we grew hundreds of thousands of acres in six Midwestern states, but the tax was reenacted after the war. Then in 1970, President Nixon included hemp in Schedule I of the Controlled Substances Act.

In 2013, on the heels of Colorado being the first state to legalize industrial hemp, I wrote the language for Section 7606 of the 2014 Farm Bill, a provision that grants U.S. farmers the right to cultivate hemp in states where production is legal. Since that time, we've grown the industry from basically zero to 75,000 acres of hemp permitted in 2018. Production in 2019 will be limited by seed supply, but we could see 100,000 to 200,000 acres. Farmers in states that have legalized it and have a permit system in place are in a pretty good position in 2019. The old rules will allow the industry to grow rapidly.

The 2018 Farm Bill is the dawn of a new era, but we need infrastructure, education, and genetics. We have a lot of work ahead of us, but there is a very exciting future for those who want to be a part of that community.

A brief analysis of what we are seeing in other states: Colorado has been the #1 state in production out of the gate, but long-term it will probably be more of a research state. Kentucky grows a lot of CBD [cannabidiol] plants for oil extraction. Montana came out of the gate last year with 22,000 acres permitted. Minnesota is gearing up for some pretty significant expansion in 2019. North Carolina is on the radar screen.

Iowa will catch up in two or three years, once it solves permitting and legislative challenges. New York could end up being a big state. On January 14, Canopy Growth, a publicly-traded company out of Canada, announced a \$150 million investment in a processing facility in New York. They must see opportunity for a lot of acreage in that state.

There are nine states that have not legalized it yet, including Ohio. However, from my conversations here in Ohio, it is clear that the agricultural leaders, the legislature, and the executive are working quickly to create a strong regulatory framework.

Driving the market right now is CBD, which is an extract from the female plant that is a popular dietary supplement. The oil has an omega profile almost identical to fish oil. You grow those female plants much like you would a marijuana plant, with the difference being the amount of THC [active ingredient of cannabis]. It's like O'Doul's and Guinness. The CBD plant is nearly devoid in THC.

There is a lot of energy being put into the CBD space right now, both money and human capital. I think we've only touched the tip of the iceberg on demand. Those of us who have used CBD oil or have family members who have used it have seen some pretty amazing health responses. We are going to have a significant market demand that can't be met yet by domestic production.

The second lane in the industrial hemp world, the traditional side, will be the mainstream agricultural side. Industrial hemp is going to be grown for food, feed, fuel, building materials, and more.

On the CBD side, you have 1,000 to 1,600 plants per acre, planted and tended to as separate plants. Traditional hemp, grown for mass market products such as textiles and bioplastics, has a planting rate of 400,000 per acre (roughly 100 plants/square meter), and is drilled in like wheat. It grows tall and you harvest the tops for seed production and then use the stalk for a number of industrial purposes.

Colorado State University has been an incredible partner. They embraced hemp early and had the first certified seed program. That hasn't been replicated much nationwide, because universities had concerns over possible violation of the federal Drug-Free Workplace Act. We had this gray area where we were allowed to operate legally under the Farm Bill even though hemp was a Schedule I drug.

Farmers are looking for ways to diversify and create new markets. Hemp produces high-quality oil and protein products, plus we get the bonus of textiles. We produce fiber, oil, and protein. There is a growing consumer market, even a preferential market, for hemp-derived products. If we make the necessary investments in infrastructure to grow these acres, I am convinced the market demand is there for a hemp-based suite of products.

We will need to reach a million acres if we are going to do textiles and bioplastics to scale. I think hemp protein will become an aggressive competitor to soybean protein. It's being used in animal agriculture around the world. Colorado State University is doing studies on beef and chickens.

We don't want hemp to be a Jerusalem artichoke, where there were significant financial and market claims that never materialized. Some activists have created an irrational exuberance about where we are at today. We are at the starting gate. Now the hard work of infrastructure, market development, and branding begins.

As you look to grow your industry here in Ohio, education is our big challenge. We are reaching out to the national and state corn and soybean associations, because if we are going to have significant acreage it's going to come from those camps.

Another significant challenge is genetics. There is a lot of seed available outside of the U.S., but we don't know how acclimated it is to latitudes and longitudes here and how that correlates to THC limits at harvest. If farmers bring in seed and the crop busts the .3 limit at harvest, it becomes marijuana under the law and must be destroyed. I believe there will be a brake on some robust expansion until we get a good feel for how those genetics are going to express themselves in different environments. It will most likely take another year.

Lastly, we must get insurance and banking in place. We are not going to get out of the gate without having those problems solved. The farm bill instructs risk-management agencies to get an insurance product in place. But today, comprehensive insurance and banking needs have not been met.

Thank you for the opportunity to share insights into hemp farming and the industry. I am happy to answer any questions and be a resource as you develop a state hemp program.