

Guest Column

Crushing Capacity Will Bring Value to North Dakota

This could be a game-changer for North Dakota soybean farmers. After years of discussions and countless conversations espousing the need for soybean crushing capacity in North Dakota, the announcement that ADM plans to build a 150,000 bushel per day processing facility and biofuel refinery near Spiritwood came as very welcome news to many people in the state.

Currently, North Dakota is one of the few soybean-producing states without a sizable soybean crushing industry. The U.S. Department of Agriculture (USDA) estimates that North Dakota farmers will plant about 7 million acres of soybeans in 2021. Since 2016, farmers in the state have grown between 5.5 and 7 million acres of soybeans each year. Unlike North Dakota's canola production, which is largely processed in-state, just about all of the soybeans leave the state as whole soybeans. The ADM plant will change that equation in a big way, consuming about one-fourth of the state's annual soybean production for soybean meal and oil.

A study conducted by LMC and commissioned by the United Soybean Board and the National Oilseed Processors Association showed that, in 2016, soybeans accounted for 9% of North Dakota's gross domestic product. The state reached that number without much processing.

Domestic processing adds value to soybeans by separating the seeds into their component parts of meal and oil. The potential to create jobs and to generate value-added soybean products that increase domestic markets is beyond intriguing because of the many benefits such a facility would provide.

Oilseed Opportunity

We're all aware that North Dakota is an energy state. Coal and oil resources lie below the ground and help to drive the state's economic engine. North Dakota also has abundant energy sources that grow above the ground on an annual basis. Crops such as soybeans capture the sun's energy to grow and to reproduce.

Once separated from the meal portion of the bean, soybean oil can be refined into biodiesel, the nation's only commercially available advanced bio-fuel. Biodiesel returns 3.5 times the energy it takes to produce it. According to the National Biodiesel Board, biodiesel reduces lifecycle greenhouse gases by 86%; it lowers particulate matter by 47%; and it reduces hydrocarbon emissions by 67%.

North Dakota already has biodiesel and renewable diesel plants operating in the state. With the increased emphasis on low-carbon fuels, North Dakota is poised to take advantage of new opportunities.

Numerous states and cities are pushing for lower carbon emissions, and many localities are turning to biodiesel and renewable diesel in order to meet those goals. California's biodiesel and renewable diesel use grew from 14 million gallons in 2011 to 830 million gallons in 2019, a nearly 6,000% increase in 10 years. About 22% of every gallon of diesel consumed in California is now biodiesel and renewable diesel. Research from the University of California-Davis suggests that the 22% renewable diesel content needs to be closer to 60 to 80% if California is going to meet its climate targets by 2030.

With more states pushing for reduced or zero carbon emissions from vehicles, North Dakota is poised to become a player on the national scale in renewable energy. Despite a rush to move to electric vehicles, there is a role for biodiesel and renewable diesel for the long haul, especially for high-powered vehicles such as farm and construction equipment, as well as for trucks and locomotives.

Added Benefit

In addition to elevating North Dakota's profile in renewable energy, soybean processing will make soybean meal more available to the state's livestock producers. Soybean meal is a highly sought protein source for most animal diets. Sometimes, cattle ranchers and dairy farmers choose protein sources other than soybean meal because soybean meal is, often, too expensive. Soy crushing in



Ryan Pederson
 NDSGA Vice President
 National Biodiesel Board Treasurer

North Dakota will reduce the soybean meal's costs, making it a more attractive feed ingredient for animal diets. In-state capacity will also reduce expenses significantly because freight is a substantial portion of feed costs.

Potential is a wonderful thing, but on the flip side, unmet potential typically reflects disappointment and unrealized possibilities. I'd hate to see North Dakota's soybean-crushing and renewable-energy potential go unmet.

North Dakota farmers produce high-quality soybeans that are sought after around the world. Now markets much closer to home including livestock producers and biofuel refiners will also have access to those soy products. Crush capacity in North Dakota will provide additional markets to the state's farmers, it will allow value-added opportunities to be captured locally, while reducing North Dakota's reliance on export markets. That sounds like a game changer to me.