

Chairman Thune, Members of the Committee, thank you for the opportunity to speak with you this morning on aquaculture – an important topic for each of your states, and for our country.

My name is Mark Luecke. I am the Managing Director and CEO of Prairie AquaTech, a specialty feed ingredient and aquaculture technology company based in South Dakota. Like many of your constituents, I grew up on a small family farm in Rural America. I graduated from business school and migrated to larger markets, pursuing a career in finance and eventually becoming an entrepreneur. Nine years ago, a group of civic leaders recruited me back to my home state to start South Dakota Innovation Partners. We had a mission of commercializing research from our nation's land grant universities, where innovation in agriculture was occurring. Our national security interest of protecting our country's food supply – the process of getting crops from our farmers' fields to food on our plates – became our investment thesis; more specifically, animal health and nutrition. In fact, a milestone that one of our companies will achieve this week is becoming the first USDA-licensed vaccine production facility in the State of South Dakota. This company, Medgene Labs, has a focus on foreign animal diseases that threaten our food supply.

Prairie AquaTech started with research at South Dakota State University that received both public and private funding. Technology transfer policies based on the Bayh-Dole Act allowed us to license the technology and begin the commercialization process. We constructed a 30,000 square foot pilot scale facility with support from the Brookings Economic Development Corporation and the Department of Commerce's Economic Development Administration. This facility, the AgTech Center for Rural Enterprise, has a mission of scaling and de-risking university technologies and starting new operating companies to support job growth in rural communities. With further public and private support from the National Science Foundation and USDA's Small Business Innovation Research Programs, the United Soybean Board, South Dakota Soybean Association, Indiana Soybean Alliance, Soy Aquaculture Alliance, and many private investors, Prairie AquaTech developed a sustainable, plant-based protein ingredient that is being used in many locations around the country, including a large fish supplier to Whole Foods Market in the State of Wisconsin. Committee Members will appreciate that the seed funding provided by the NSF, USDA, and others has put Prairie AquaTech in a position to close on \$60 million of private funding next month. This funding will be used to construct a large protein ingredient production facility in rural South Dakota. We take our responsibility of generating a return on both public and private investment very seriously, and we believe we have done so with Prairie AquaTech.

While Prairie AquaTech is an extraordinary example of the effectiveness of public / private partnerships, it is more important for Committee Members to understand that our collective work is only beginning. Despite a number of important policy statements supporting the growth of a sustainable aquaculture industry in the United States, we have made limited progress. Seafood remains one of our country's highest trade deficits in the natural resource category, while aquaculture remains one of the fastest growing segments in agriculture outside the U.S. We believe the reasons for our country's slow growth in aquaculture include 1) the unavailability of high quality feed ingredients produced locally, which equates to over 50% of fish production costs, 2) the unavailability of investment capital to construct more fish production facilities, and 3) an inefficient regulatory pathway permitting fish production facilities while preserving our marine and land-based environments. An opportunity exists to improve our position.

With partner support, Prairie AquaTech has solved the first challenge of high quality feed ingredients produced locally. Soybean farmers across many of your states have been searching for new and higher value uses of soybean meal given an increase in supply and global competition. The process developed by Prairie AquaTech opens a new global market for our soybean farmers by eliminating allergenic proteins and sugars in soybean meal that limit inclusion levels in aquaculture feed. The process also increases phosphorus availability to the animal so that fish production facilities no longer discharge phosphorus into the surrounding environment. Imagine our country feeding local, plant-based protein ingredients that are 100% digestible to fish, which have the highest feed conversion rate of all animals, in an environmentally conscious manner – this is a major win for all constituents.

However, we need the Committee's support to increase the availability of investment capital to construct more fish production facilities in the U.S. Unlike investments in software companies, these facilities have a long lead time to design, construct, start production, and achieve breakeven. This long lead time creates risk and prevents investors and lenders from supporting these projects. We propose a public / private advisory group with a mission of recommending economic policies to the Committee that create incentives and reduce risks for private investors and lenders to support more fish production facilities.

Similarly, we need the Committee's support to establish an efficient regulatory pathway permitting fish production facilities in the U.S. Multiple federal and state agencies claim and disclaim jurisdiction in the current regulatory pathway, which is unproductive to building an industry. The public / private advisory group would further recommend regulatory policies supporting entrepreneurs, investors, and lenders.

I appreciate the Committee Members' time and attention; thank you very much, Chairman Thune.