



Prairie AquaTech Capabilities

Prairie AquaTech leverages the following capabilities to develop, manufacture and distribute animal health and nutrition products worldwide.

AgTech Center (Brookings, SD)

Aquaculture Research Lab - Prairie AquaTech's state-of-the-art aquaculture research lab is equipped to investigate the attractability, palatability, growth, and digestibility of novel feed ingredients in aqua feeds. We are equipped to evaluate performance results of various feeds using our Recirculating Aquaculture Systems (RAS).

- Nine Recirculating Aquaculture Systems (RAS) equipped with UV sterilization, moving bed bio-reactor (MBBR), bead filtration, centrifugal pump, pure oxygen injection, and heat pump
- Each RAS contains 10 – 36 tanks per system
- 250 tanks with volumes ranging from 10 – 1000 gallons
- Bio-Secure Hatchery
- Necropsy Lab
- Histology Lab
- Hach, YSI, and SCADA Water Quality Monitoring Capabilities
- Noldus EthoVision XT Tracking Camera and Software
- Cultured species include, but are not limited to, Atlantic salmon, rainbow trout, coho salmon, largemouth bass, channel catfish, barramundi, and whiteleg shrimp

Feed Manufacturing Research Facility – Prairie AquaTech’s pilot-scale feed manufacturing facility is fully equipped to develop novel aqua feed formulations for nutrition research and the commercial production of extruded feeds.

- Extru-Tech E325 Single-Screw Extruder
- Phlauer Mixer and Vacuum Oil Coater
- Jacobson Hammermill – 300 um pre-extrusion grind size
- Feed Crumble Line: Roller Mill, Oscillating Crusher, and Sieve
- Minimum Extrusion Batch Run Size: 200 pounds
- Maximum Extrusion Production Rate: 800 pounds per hour
- Extruded Pellet Diameter Range: 1.1 mm – 9.0 mm
- Feed Crumble Range: 150 um – 800 um
- Capable of producing floating or sinking feed

Manufacturing Plant (Volga, SD)

ME-PRO Protein Production (up to 2,500 tons/month)

- Four 50,000-gallon protein fermenters
- Proprietary fermentation organism grown onsite
- Greater than 70 percent protein ingredient
- Computerized process control to assure consistency in final product
- Production of a soy soluble feed ingredient
- Automated bagging and palletizing system
- Lab/testing facility
 - In-house testing for:
 - Fat, protein, fiber, moisture, ash, phosphorous
 - Various assays for enzymes
 - Data analytics to verify final product consistency and results
 - Near Infrared (NIR) capabilities for faster analytic results, supported by wet chemistry testing
- Shipping and logistics services

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