

Bioindustrial facilities

AURI's Bioindustrial facilities include an Anaerobic Digestion Pilot Plant as well five Laboratories in Applied Biology, Biomass and Fiber Processing, Grains and Oilseeds Processing, Analytical Chemistry, and Preparatory and Synthetic Chemistry. Together they help businesses take advantage of the growing opportunity to replace petroleum-based ingredients in materials such as plastics, transportation and heating fuels, building materials, industrial and consumer biobased chemicals, and more. AURI offers expertise in process engineering, microbiology, chemistry, and business development. AURI's bioindustrial team has wide experience in technology transfer as well as product and process development supported by its various facilities.

Businesses developing new products and processes have access to AURI's equipment and technical experts in engineering, business development, biobased and coproducts science, as well as analytical chemistry. The ability to access specialized equipment, along with both technical and business expertise, is a valuable service to commercializing new bioindustrial products.

AURI SERVICES:

- Expert technical assistance
- Applied lab research
- Product and process development
- Commercialization services
- Pilot lab access
- Market and supply chain insights
- Go-to-market guidance
- Networking and referrals

ABOUT AURI

The Agricultural Utilization Research Institute (AURI) is a nonprofit corporation that identifies new, innovative uses for Minnesota's agricultural products through business development, science, and technology while partnering with businesses, farmers, and entrepreneurs to bring value-added ideas to reality.

AURI MISSION

Accelerate the agricultural economy by empowering expanded uses and markets of agriculturally derived products.



BIOGAS



BIOBASED



COPRODUCTS



Changing the Field.



Contact AURI by calling **218.281.7600** or visit **auri.org** and complete the online contact form.



*Bioindustrial
Capabilities*

**Agricultural Innovation
from Idea to Reality**



FACILITIES AND RESOURCES

AURI conducts its Bioindustrial work at its Marshall and Waseca, Minnesota facilities. These labs offer businesses unique access to scientific expertise and resources to advance new ideas or commercialize products. As a result, businesses related to developing biobased renewable energy, biobased products and materials, and agricultural processing of grains, coproducts, and crop residues can safely and cost-effectively find solutions for product development/formulation and technical problems encountered during commercialization.

BIOINDUSTRIAL PRODUCT DEVELOPMENT RESOURCES

- Small-scale fermentation and digestion
- Extraction and characterization of oils
- Analytical and synthetic chemistry
- Product characterization
- Particle size analysis
- Applied lab research
- Product evaluation and testing
- Sourcing of process equipment
- Feed and fertilizer characterization
- Feed and fertilizer formulation assistance
- Product pelleting and densification
- Drying and dewatering evaluation
- Startup production runs for trials

LAB EQUIPMENT CAPABILITIES

- Table-top oil press
- Rotary evaporator
- Parr reactors
- Chemical reactors
- Distillation and evaporation
- Blending capabilities
- Material dewatering and drying
- Milling and grinding
- Cold press oil extraction
- Densification
- Material handling
- Particle size analysis
- Grain de-hulling
- Seed cleaning and sizing
- Pelletizing
- Drying

HOW AURI CAN HELP YOU

Producers, entrepreneurs, and business owners looking to develop new biobased materials and products benefit from working with AURI by utilizing its facilities and commercialization services. Further, they can safely and cost-effectively find solutions to technical problems encountered during commercialization. Services offered to clients include:

- Access to knowledgeable scientists and business development staff
- Access to laboratory space and equipment
- Analytical laboratory testing
- Product and process development and improvement
- Sourcing materials, equipment and services

Bioindustrial clients and partners may also participate in the organization's AURI Connects program, which convenes events to actively engage industry representatives, businesses, commodity groups, and academics across a range of relevant innovation topics. Its goal is to improve business networks and competitiveness through ongoing, educational, purposeful connection of clients, resources, and partners along the value chain.



PROJECT FEES

As a 501(c)3 nonprofit corporation, AURI strives to keep its educational and technical services accessible and affordable for all entrepreneurs, producers, businesses, and organizations it serves. To that end, AURI uses a tiered scale to discount client-specific project fees, based upon annual gross revenue for Minnesota companies.

AURI may also provide fee-based educational and technical services to non-Minnesota entities that align with its mission. Please contact AURI for additional details on rates and services.

In addition, AURI provides several free educational and informational resources, conducts industry and educational events, offers initial project consultations, and makes referrals to non-AURI resources.

