

LEGISLATIVE

FY2024
AURI
ANNUAL REPORT



“

AURI plays a critical role in advancing Minnesota’s agricultural sector by bringing together industry leaders, innovators, and entrepreneurs to explore new opportunities and overcome challenges. We look forward to continuing our partnership with AURI to help strengthen and grow Minnesota’s agricultural industry.”

T. Marc Schober, Director, CRM & Specialized Agriculture Solutions, Bremer Bank

TABLE OF CONTENTS

1	From the Executive Director
2	Board of Directors
3	At a Glance
4	Client Impact
5	Client Projects
7	Bioindustrial
9	Food
11	AURI Connects
13	Financial Statement
14	Statement of Activities
15	Looking Forward
17	Active Projects and Progress Report

FROM THE EXECUTIVE DIRECTOR

It's with a proud sense of accomplishment that I look back upon AURI's last fiscal year. Very few organizations get to work so closely with producers, researchers, businesses, and corporate leaders in advancing innovation and opportunity.

AURI conducted 210 projects and helped deliver \$187 million in new annual sales, \$85 million in new capital invested, and 717 jobs created or retained to the Minnesota economy. The future impacts this work is estimated to have for Minnesota include 797 jobs created or retained and an additional capital investment of \$266 million.

The multiple projects ranged from small-scale technical assistance with businesses to multi-year initiatives to focused webinars and large events.

We recognized the Eiyneck family with our Ag Innovator of the Year award. Eiyneck Farms is a producer and small business that has scaled an oat groating facility in a short period of time. They now incorporate thousands of acres of oats into a value-added product for the pet food industry.

One key initiative concluded this fiscal year was a two-and-a-half-year partnership with the United States Department of Agriculture's Agriculture Marketing Service (USDA-AMS) to build resiliency within the local and regional meat processing sector. The project identified some of the financial barriers facing small meat and poultry processors, produced a needs assessment to guide technical assistance and business development, and presented multiple forward-looking solutions to assist the industry in overcoming barriers. More information about AURI's collaboration with the USDA-AMS, as well as the complete catalog of briefs, reports, and tools, is available at <https://bit.ly/AMS-Resources>.

AURI also opened its new Bioindustrial Innovation Center in early 2024, roughly doubling AURI's pilot lab footprint. With financial support from the state of Minnesota, AURI invested in new space and equipment to catalyze the commercial market expansion of ag-derived products. The center has capabilities in anaerobic digestion, biomass drying, decortication, and oilseed pressing, as well as densification and processing operations. Minnesota Department of Agriculture Commissioner Thom Petersen attended the grand opening of the Bioindustrial Innovation Center in Waseca, Minnesota. He shared this congratulatory message from Governor Tim Walz: "As a hub of cutting-edge research and development, I am excited to see how AURI will use this center to revolutionize the commercial market expansion of agriculturally derived products. I commend your commitment to impacting the lives of Minnesotans through the development and distribution of value-added agricultural products."

AURI is well-positioned to drive key sectors of Minnesota's agriculture industry. In the year ahead, I look forward to even greater engagement with stakeholders and partners across the value chain to support and advance the agricultural and rural economies. The future is bright for innovation in our sector, and I believe agriculture is well-positioned to help solve problems and capitalize on emerging opportunities.



Shannon M. Schlecht
Executive Director



MESSAGE FROM AURI'S BOARD CHAIR

I have had the pleasure of leading AURI's board of directors for a third year and am pleased to share my perspective on AURI's recent accomplishments.

At a high level, the organization advanced our strategy from paper to practice in the past year, ascertaining baselines and building frameworks to achieve our shared vision to positively impact Minnesota's agricultural economy. AURI welcomed two new board members during the year, Mikayla Tabert, representing the Minnesota Wheat Research and Promotion Council, and Ted Winter, representing the Minnesota Farmers Union. Our board members have continued to show their commitment to our strategic direction over the past year. Their contributions representing broad sectors of our State's agri-food stakeholders have been invaluable. AURI continues to prioritize resources to achieve maximum impact, raise brand awareness, increase stakeholder engagement, build capabilities, and advance efforts to be a high-performing organization.

After scanning the landscape to determine where AURI could be most effective, we identified new areas of potential impact. Understanding the landscape of opportunities was a necessary and critical step to find synergies and position resources where we expect growth opportunities to arise that can benefit Minnesota. These areas include coproduct valorization, biomaterials and renewable chemicals, food ingredients, scaling food manufacturing, and advancing renewable natural gas and anaerobic digestion efforts. While we focus on these areas, we will also continue to support many other value-added uses and markets across food, feed, and biobased energy via our expertise and networks to advance innovation.

I also wish to note that I'm especially proud of AURI's new Bioindustrial Innovation Center in Waseca. We held a grand opening event in April 2024, where we showcased the facility's enhanced footprint and capabilities. The Center now provides the State of Minnesota with a new launching pad to advance emerging bioindustrial areas—from feed to fertilizer to fuel—as we, at AURI, work to valorize many different agricultural feedstocks.

One-time funding from the Minnesota legislature helped make this expansion possible, and we are very appreciative of that long-term partnership. Additional funding from the legislature is also enabling AURI to better support Minnesota's vibrant food ecosystem. In the next year, AURI will move multiple initiatives forward to support, grow, and implement future-looking initiatives to best position our food businesses for long-term success.

To close, AURI has an engaged board and talented staff that are tireless in their passion and dedication to accelerating new value-added opportunities to positively impact our agriculture sector and state economy in the years ahead. I am proud of the work accomplished this past year by the board and staff to empower expanded uses and markets for the state's agriculturally derived products.



Federico A. Tripodi
Board Chair



“

I have referred many people to AURI over the years. They are experts and they really know the kinds of challenges and questions that businesses face day to day. The team at AURI really goes the extra mile. You can tell they really care about their clients and take a lot of pride in the businesses they work with. They are wonderful.”

Troy Lightfield, Owner & Founder, Lightfield BBQ

BOARD OF DIRECTORS

Federico A. Tripodi, Chair
At-Large Board Member

Ted Winter
Minnesota Farmers Union

Carolyn Olson, Secretary/Treasurer
Minnesota Farm Bureau

Sen. Aric Putnam
Minnesota Senate

Rep. Samantha Vang
Minnesota House of Representatives

Lauren McNamara
Agribusiness, SunOpta

Joe Serbus
Minnesota Soybean Research
& Promotion Council

John Schafer, Vice Chair
Minnesota Beef Council

Jon Veldhouse
Agribusiness, Qore

Mikayla Tabert
Minnesota Wheat Research
& Promotion Council

Jeff Grev
At-Large Board Member, Hormel Foods

Fiscal Year Expenses: \$7,335,615

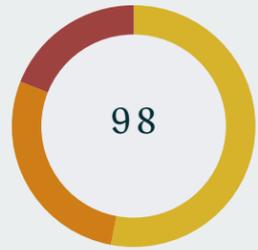
Fiscal Year Revenue: \$7,140,174



“

The team at AURI was extremely helpful with creating my nutritional panel. They also provided ideas on how to streamline products and production and assisted with exploring the market to give me a sense of the opportunities that were available.”

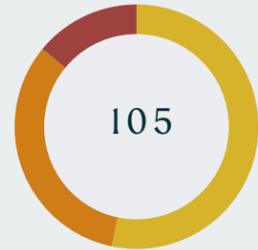
Akalat Thao, Founder, Sushi Zen



New Projects and Initiatives Opened

98

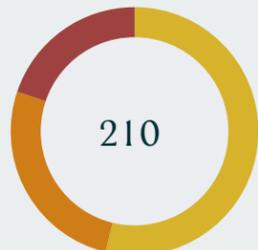
53 Food
27 Bioindustrial
18 Multi-Area



Projects and Initiatives Closed

105

57 Food
33 Bioindustrial
15 Multi-Area



Total Projects and Initiatives Serviced

210

114 Food
55 Bioindustrial
41 Multi-Area



Project Hours by Focus Area

100%

11% Food
25% Bioindustrial
64% Multi-Area

FY24 Events

10
Number of events

1,009
Number of participants

241
New participants

730
MN participants

36
Number of states represented

4
Number of countries represented

986
Post-event Youtube views

EVENTS BY FOCUS AREA

8
Food

2
Bioindustrial

Client Impact:

JULY 2019-JUNE 2024

797
Estimated Future Jobs
Created/Retained

\$266,532,780
Estimated Future Capital
Investment

\$187,200,952
Estimated New Gross
Annual Sales

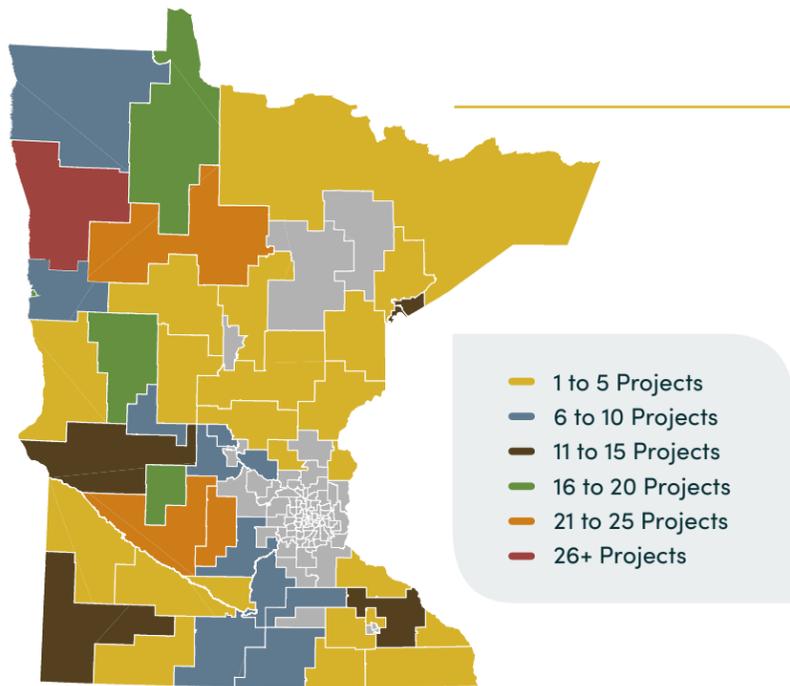
\$85,419,229
Estimated New Capital
Investment

717
Estimated Jobs
Created/Retained

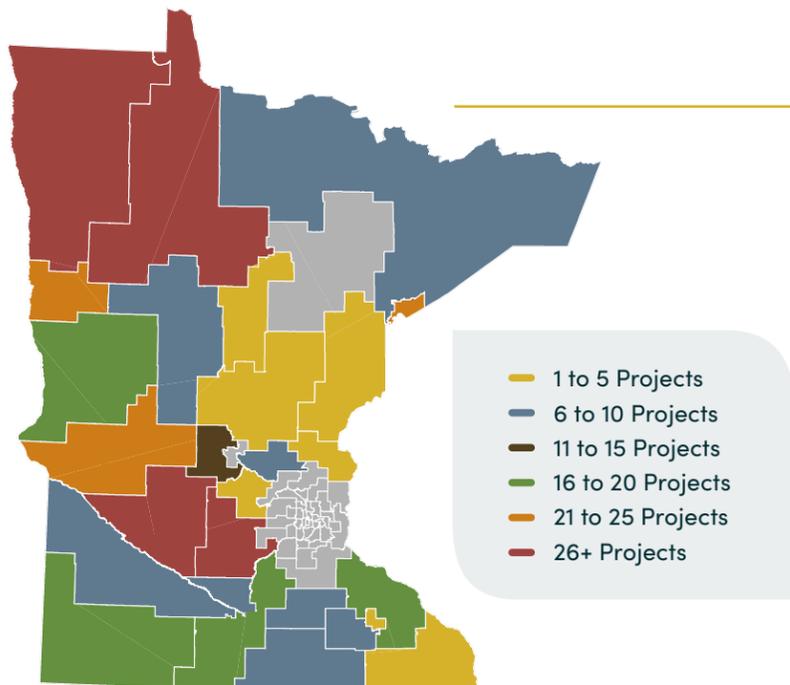
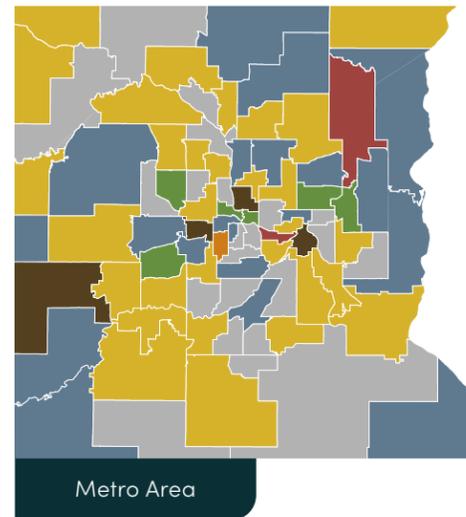
CLIENT PROJECTS WORKED ON

July 2014-June 2024

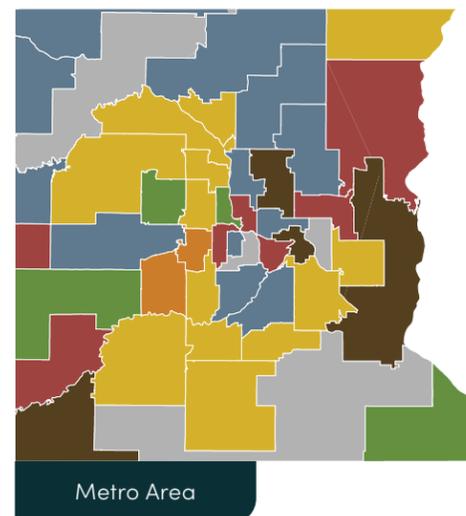
AURI is proud to partner with producers, businesses, and entrepreneurs throughout Minnesota. As the map below shows, AURI worked on client projects in most of Minnesota's Legislative Districts between July 1, 2014 and June 30, 2024. The impact of these collaborations was significant to communities throughout the state. AURI also conducted several statewide initiatives throughout the year.



Minnesota House Districts



Minnesota Senate Districts



“

AURI's services were critical to my success. AURI is the partner no entrepreneur in the ag sector should be without.”

Mary Hartman, Founder, StableFeed

FOCUS AREAS

Our work across ag commodities and agricultural derived products focuses on two core areas: Food and Bioindustrial products, as well as Multi-Disciplinary.

The following pages provide an overview of the focus area resources and efforts AURI dedicates to advancing value-added opportunities in each area.

BIOINDUSTRIAL

27
NEW PROJECTS
AND INITIATIVES
OPENED

33
PROJECTS AND
INITIATIVES
CLOSED

55
TOTAL PROJECTS
AND INITIATIVES
SERVICED

“The partnership between Compeer Financial and AURI to host the New Uses Forum has been valuable in convening innovators in the agricultural value stream to share their ideas and best practices as well as engaging vendors in that space. As a forward-thinking company, Compeer finds value in identifying and understanding new trends and opportunities to position itself to better serve its members.”

Aaron Knewton, VP Food and Agribusiness, Compeer Financial

Since its inception more than 30 years ago, AURI has maintained a strong focus on bioindustrial innovation. AURI has long worked to develop non-food value-added uses and market opportunities for Minnesota-grown crops, agricultural-derived products, and processing coproducts. The portfolio of projects AURI has assisted in this sector is long and diverse, ranging from the development of industrial products, building materials, sorbents, and erosion control products to renewable energy opportunities and much more.

AURI's commitment to innovation for industrial uses has not wavered. Instead, the organization is building on decades of experience and expertise to help Minnesota businesses capitalize on opportunities in the emerging bioindustrial space.

Building Capacity

In recognition of the ongoing demand for technical assistance and expertise, AURI expanded its capacity to support biobased development by opening the Bioindustrial Innovation Center in Waseca. Funding from the State of Minnesota enabled AURI's investment in the Center.

In 2024, AURI opened the 15,000-square-foot space that provides offices, a training center, a food-grade processing area, and a pilot laboratory that will further the current and future needs of Minnesota producers, businesses, and entrepreneurs. The new facility will continue to advance biomass feedstock utilization into various applications for food, feed, fuel, and fertilizer applications, including pelleting, dewatering, drying, decortication, anaerobic digestion, particle sizing, biomass handling, biomass densification, separation, grinding, and more.

The site also incorporates a larger food-grade laboratory for AURI staff to provide services related to small-scale oilseed processing and milling capabilities of emerging crops and traits that can be used for developing new food and feed products.

Building Businesses

AURI maintains its focus on supporting existing and emerging Minnesota businesses. One such project involved Kasson entrepreneur Mary Hartman, who



started StableFeed, an innovative equine feed and supplement company. The company grew out of Hartman's desire to create healthful treats intended for her own horses. As the benefits of the StableFeed supplements became evident, other horse owners and enthusiasts soon recognized the value of Hartman's products.

Hartman worked with AURI on product formulations and the proper parameters for producing a pellet made from sainfoin, a perennial legume widely acclaimed for its climate-mitigating

properties and contributions to animal health, as well as other novel ingredients. Sainfoin can be grown in Minnesota, but to date, is most widely produced in the western United States.

“AURI's services were critical to my success,” Hartman says. “AURI is the partner no entrepreneur in the ag sector should be without.”

Hartman grew the company from an in-home sideline to a burgeoning business. StableFeed now operates from a 3,800-square-foot production facility in Kasson with nationwide product distribution. Hartman says the company sold over \$1 million in products in 2024, and more business expansion is expected. In addition to building the StableFeed line of horse feed and supplements, she's working with AURI on a project to test the potential of sainfoin-based diets in dairy cows to help reduce methane emissions.

Building Industries

In addition to assisting individual businesses, AURI conducts initiatives that have industry-wide benefits. AURI worked for several years to develop a value chain for industrial hemp. A recent effort involved leading a project supported by the Minnesota Department of Transportation (MnDOT) and funded through the Minnesota Environment and Natural Resources Trust Fund. The project explored the potential of using industrial hemp fiber in erosion and sediment control products. Entities like MnDOT seek sustainable, biobased products derived from locally grown sources like hemp to replace plastic and other fossil fuel-based products.

AURI's Bioindustrial Innovation Center in Waseca processed hemp fibers for testing in mats, hydromulch, erosion control logs, and silt fences. AURI partnered with several private industry partners to develop a variety of erosion control prototypes. Products were tested at several locations, including at MnDOT's MnROAD test site near Albertville, Minnesota.

“There's great potential for hemp products,” says Ken Graeve, MnDOT erosion and stormwater supervisor. “Based on the demonstration that we did and the lab testing, the products perform similarly to products we currently use.”

AURI and MnDOT hosted a field day at the MnROAD facility to connect value chain players, ranging from growers and vendors to manufacturers.

Each year, MnDOT-led construction projects use about 4 million pounds of erosion products and sediment control materials, which are valued at \$6 million to \$10 million. This demand could be fulfilled by more environmentally friendly hemp fiber for some or all of its composition. Most hemp processing focuses on the seeds for food and industrial products, but utilizing the hemp fiber would offer growers and processors another potential revenue source that would support the growth of Minnesota's hemp industry.

Building Connections

The annual AURI New Uses Forum brings industry and thought leaders together to examine pertinent and emerging topics. The 2024 event focused on how bioindustrial products and biomaterials are transforming the agriculture sector and how the Midwest is seizing opportunities in this growing area of innovation.

Minnesota is home to several leading companies and initiatives operating in the bioindustrial space. Many of those innovators participated in the New Uses Forum and shared their insights, including representatives from Cargill, BioMADE, Solugen, and NatureWorks.

“The partnership between Compeer Financial and AURI to host the New Uses Forum has been valuable in convening innovators in the agricultural value stream to share their ideas and best practices as well as engaging vendors in that space,” says Aaron Knewton, vice president of food and agribusiness for Compeer Financial, one of the New Uses Forum's sponsors. “As a forward-thinking company, Compeer finds value identifying and understanding new trends and opportunities to position itself to better serve its members.”

New Uses Forum sessions focused on activities from commodity producers to entrepreneurial endeavors to end users. Sessions also provided investor perspectives to highlight investment activity and trends. The forum included conversations with leading industry experts on market challenges and opportunities in bioindustrial innovation.

The event also provided participants with a historical perspective on Minnesota's contributions to the bioindustrial sector and showed how the state is well-positioned to take advantage of an industry at an inflection point.

FOOD

53
NEW PROJECTS
AND INITIATIVES
OPENED

57
PROJECTS AND
INITIATIVES
CLOSED

114
TOTAL PROJECTS
AND INITIATIVES
SERVICED

"AURI was a pleasure to work with, and they are a great asset to small businesses. I really appreciated how they translated the scientific and technical information and presented it in a way that was very easy to understand. I have recommended AURI to a few food business owners that I know, and I am very impressed with the service I received."

Molly Miller, Founder, Sift Gluten Free Bakery

AURI's Food Team provides important business consulting and technical services to help food and beverage businesses succeed in a rapidly changing market. The team of scientists and business development experts is committed to transforming Minnesota's diverse agricultural products into sustainable businesses by providing affordable access to consumer and food science expertise and infrastructure.

In FY24, the team worked on 114 projects throughout the state, split between private commercialization projects and public initiatives. As part of its ongoing efforts to serve the local and regional meat processing sector in Minnesota and the Upper Midwest, AURI completed a three-year partnership with the United States Department of Agriculture's Agriculture Marketing Service (USDA-AMS). The goal of this partnership was to build resiliency within the local and regional meat processing sector by identifying the financial barriers for small processors, conducting a needs assessment to guide technical assistance and business development, and developing multiple strategies to assist the industry in overcoming obstacles.

AURI discerned several financial, technical, and operational issues that prevent the local and regional meat processing sector from achieving its full potential. Staff produced a series of research briefs to address specific industry concerns including reports on the financial challenges in the processing sector, cold storage capabilities, industry benchmarking,

waste-reducing applications for animal hides, and an industry needs assessment. AURI also created and curated specific tools and training videos for processors to help catalyze growth among small and very small meat businesses.

AURI also worked directly with many small processors in Minnesota. One example is B&T Meats in Waubun, a small town in Mahnomon County. Siblings Mary and Bob Metalek opened the butcher shop and retail store in August 2024 with the goal of bringing economic development to their community and empowering area producers by providing a local processing partner. Emerging from the COVID-19 pandemic, the Metaleks turned to AURI for general business counsel and assistance writing a federal grant request. The grant provided financial support for equipment and construction of the meat processing and retail center.

"AURI is very knowledgeable about what it takes to get a business up and running. They spent time with us and answered our questions about the grant application as well as the technical health and safety considerations," Mary Metalek says. "They were an amazing resource."

In addition to meat processors, AURI's Food Team worked with a number of emerging food companies. These efforts helped entrepreneurs start businesses, launch new product lines, and expand into new markets. Lightfield BBQ Sauce is one example. The family-owned company produces a popular

line of barbecue sauces inspired by the craft beer industry that are available at retail outlets throughout the Upper Midwest. When Lightfield launched five new flavors, AURI developed the labeling information for the new products. AURI also provided recommendations to the company for new shared commercial kitchen space and a copacking partner. Owner Troy Lightfield notes he "didn't know a thing" about commercial food production when he hatched the idea for the business. The team at AURI answered his many questions and consulted on a number of important issues as the company evolved. Lightfield says it was obvious from the first day that AURI's staff care deeply about their clients to the ultimate benefit of Minnesota's food and beverage business economy.

"I have referred many people to AURI over the years. They are experts and they really know the kinds of challenges and questions that businesses face day to day," Lightfield explains. "The team at AURI really goes the extra mile. They take a lot of pride in the businesses they work with. They are wonderful."

Nystrom Orchard is an apple orchard in Worthington, Minnesota, offering value-added products, tasting experiences, and apple picking. AURI's Food Team worked with the business to help scale several of its value-added products for wholesale. AURI provided technical guidance and assistance with packaging, regulations, and labeling

requirements. The team also provided analytical analyses for nutritional content and assisted with drafting label nutrition facts and ingredient declarations. As a result, the business realized efficiencies in production and was able to grow into wholesale and sell apples to a local school for its lunch program.

Owner Kia Nystrom says the orchard's goal is to have zero waste. To achieve this, the business must be creative in finding new uses for blemished apples, such as apple cider vinegar, apple pie, apple-based dips, and even apple vodka. She believes AURI's resources, equipment, and its industry network were invaluable for her business.

"AURI is like a resource in my back pocket for when I get stuck on little questions or big issues. They are not the ones to do the work for you, but they are there to guide you to the next step and continue forward. They point you in the right direction," Kia says. "I do not have a food science background, so when I run into a problem with packaging or buying new calibration equipment or testing for pH in the vinegar, AURI is who I call. They have been great to work with."

Looking ahead, AURI's Food Team will continue to anticipate market trends and changes and make strategic decisions that best serve the region's food and beverage businesses to positively impact the state's food and agriculture economy.



AURI CONNECTS

10

AURI CONNECTS
EVENTS

1,009

TOTAL EVENT
PARTICIPANTS

241

NEW EVENT
PARTICIPANTS

730

MN
PARTICIPANTS

36

STATES
REPRESENTED

4

COUNTRIES
REPRESENTED

986

POST-EVENT
YOUTUBE VIEWS

The purpose of AURI Connects branded events is to actively engage partners across the value chain on topics related to value-added agricultural opportunities and challenges. Through increased knowledge of innovations, technologies, and trends, the program's objective is to improve the competitiveness of agricultural producers, businesses, and entrepreneurs and offer purposeful connections and sharing of resources.

During FY24, the AURI Connects program disseminated information via a variety of events focused on engagement and networking. The Webinar Wednesday and Fields of Innovation series covered multiple subject areas, while signature in-person events, like the New Uses Forum and Minnesota Renewable Energy Roundtable, highlighted AURI's work in the areas of food and bioindustrial products. In total, the AURI Connects program hosted 10 different events and brought together approximately 1,000 people, of which almost 250 attendees were new to AURI Connects. These results are due in large part to the Connects program's commitment to offer high-quality, wide-ranging, informative topics to AURI stakeholders and partners in the food and ag sectors.

Webinar Wednesday is a long-standing AURI platform that offers recurring webinars exploring different aspects of the food and bioindustrial economies in Minnesota – from resources for food entrepreneurs to innovations in coproducts and biobased energy. This past fiscal year, Webinar Wednesday offered an educational protein sustainability series, as well as presentations on how to improve the ecosystem for scaling food businesses.

The Fields of Innovation series hosted both in-person and online events to bring together representatives from across Minnesota's ag and food value chain. The program aims to create awareness, build capacity, and accelerate the commercialization of new and emerging crops and traits, while also highlighting emerging ag opportunities for producers, processors, and entrepreneurs. Topics ranged from transparency about failure and how to shift from setback to success to a three-part novel and specialty crop series. The latter explored contract and market development pathways, post-harvest handling methods, quality control targets, and regional models for aggregation and marketing.

Finally, an equally important component of the AURI Connects effort is hosting the annual Minnesota Renewable Energy Roundtable and New Uses Forum. Both are signature events that offer attendees opportunities to learn about important industry topics and network with other professionals to advance new ideas and products. The December 2023 Minnesota Renewable Energy Roundtable was held in St. Cloud. It focused on how emerging renewable hydrogen technologies can add value to the agricultural and biofuel industries as well as rural economies. The 2024 New Uses Forum was held in Mankato and exclusively focused on the biobased sector, specifically bioindustrial innovations and opportunities. Both events offered a hybrid, interactive experience.

AURI Connects will continue to be a catalyst in developing new opportunities to positively impact the state's ag and food industry for years to come.



“

I've been in the renewable energy sector for thirty years. Currently, we have more opportunities than in the last thirty years combined. AURI's Renewable Energy Roundtable highlighted and enhanced connections for many of these opportunities that provide a positive impact to rural communities.”

David Kolsrud,
Founder,
Agri Energy



FINANCIAL STATEMENT

Fiscal Year 2024

Revenue

State Appropriations (General Operations)	\$4,343,000
State Appropriations (Capital Improvements/Asset Purchases)	\$962,829
Federal Grants	\$697,481
Collaboration & Partnership Grants	\$601,062
Interest - Investments	\$382,769
Fee-For-Service	\$64,363
Sponsorships	\$34,927
Project Fees	\$16,635
Royalties	\$14,765
Private Grants	\$10,000
Registrations	\$6,349
Donations	\$5,000
Miscellaneous	\$994
Total	\$7,140,174

Expenses

Programs & Services	\$3,565,497
Program Support	\$1,050,532
Operations	\$1,012,725
Capital Improvements/Asset Purchases	\$962,829
Institutional Advancement	\$744,032
Total	\$7,335,615

Net Income or (Loss) (\$195,441)

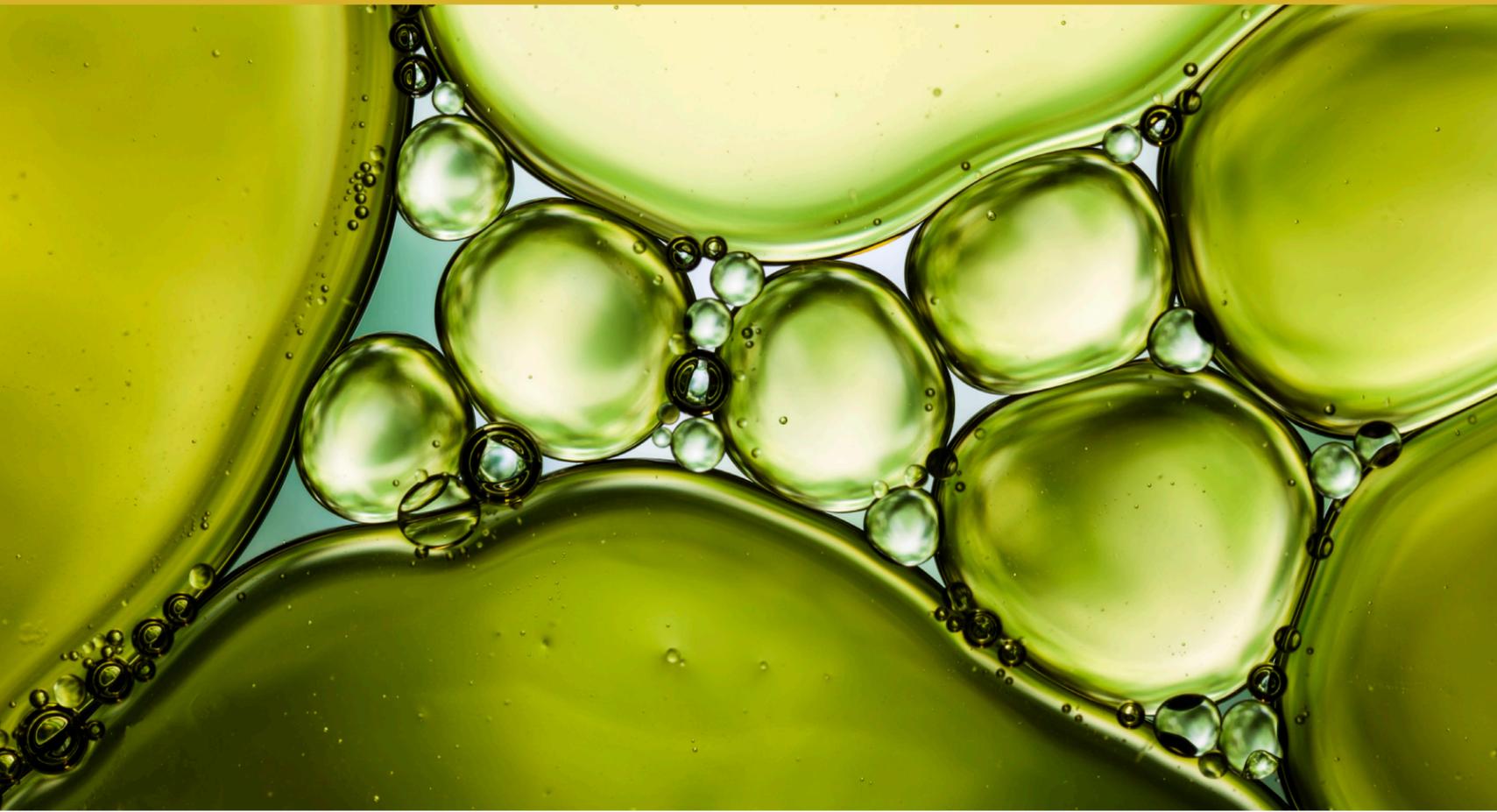
STATEMENT ON FINANCIAL ACTIVITIES

AURI had a net loss of \$195,441 at fiscal year-end 2024. In addition to AURI's State Appropriation (General Operations) of \$4,343,000, AURI received \$1,800,000 in one-time funding for special projects, equipment purchases, and upgrading its facilities, including a move to a new facility in Waseca, Minnesota. In FY24, AURI spent \$962,829 of the \$1,800,000 on capital improvements and asset purchases. The remainder of the designated funds are deferred and must be used by June 2026. AURI met its revenue goal for the year by exceeding its \$6,158,100 revenue budget. On the expense side, AURI was within 3% of its forecasted expense budget for the year, not including depreciation, capital improvements, and asset purchases. AURI ended the year with a small deficit spend. Overall, AURI generated \$7,140,174 in revenue and had \$7,335,615 of expenses, including capital improvements and asset purchases.

AURI's short-term financial outlook remains positive. The organization continues to have a solid pipeline of grants and contracts which will generate revenue through subsequent fiscal years. AURI's project portfolio had several noteworthy accomplishments in fiscal year 2024, including a Federal Grant award commitment from the U.S Department of Agriculture (USDA) Rural Cooperative Development program of \$198,000, contract with Greater MSP for \$275,000, and several other grant commitments and contracts, including the USDA Ag Marketing Service, USDA Rural Business Development Grant Program, Minnesota Soybean Research & Promotion Council, Environmental Initiative, and the Minnesota Department of Agriculture. In the long term, AURI will continue to leverage the funding it receives from the State of Minnesota to maximize its impact for Minnesota agriculture. AURI looks forward to 2025 and continuing its impactful service to Minnesota's agricultural industry.



Note: Fiscal Year 2024 Financial Statement was unaudited at time of report



LOOKING FORWARD

AURI prides itself on being future-minded. We continuously strive to explore and identify new opportunities to advance value-added agriculture that benefits the agriculture economy and the State of Minnesota. In the past year, we undertook a thorough review of several value-added agricultural areas and analyzed them for growth potential and alignment with our capabilities and assets. From this process, five areas surfaced to prioritize programs and projects to accelerate the impact AURI can provide to the state's agricultural industry. Those five areas are:

- Scaling up food manufacturing
- Food ingredient support
- Biomaterials and biochemicals
- Coproduct valorization
- Renewable natural gas and anaerobic digestion

While we prioritize the forward-looking programming we offer in these opportunity areas, AURI will continue to support all segments of the state's value-added agriculture through various tools and network connections.

A few examples of ways we are already looking forward include:

Developing virtual tools. AURI partnered with the United States Department of Agriculture (USDA) Rural Development to create a unique virtual assistant that provides 24/7 access to AURI's food knowledge and expertise. AURI's virtual assistant (AVA) connects ag producers and entrepreneurs to curated expertise to help expand food businesses. AVA's easy-to-understand, unbiased content is AI-generated but human-powered, offering optimized answers to a range of questions. You can try AVA here: <https://auri.org/ava/>.

Identifying viable business models. With support from Compeer Financial, USDA Rural Development, and a special allocation to support food businesses from the Minnesota legislature, AURI is working with our ecosystem partners and consultants to identify viable business models to support scale-up food manufacturing for regional market opportunities. An infrastructure and resource gap is regularly stated for growing food businesses seeking to move from commercial kitchens to traditional contract manufacturing. AURI intends to better understand options to bridge the gap between these ends of the spectrum. This work will support our growing food ecosystem with scale-up opportunities that can have a major economic impact.

Creating a benchmarking tool for meat processors. AURI's scale-up food manufacturing focus dovetails with our long-standing support of empowering the local and regional meat processing industry to improve its resiliency through new benchmarking and coproduct valorization programs. A benchmarking tool for meat processors will assist them in advancing operational efficiencies in their businesses on issues like facility optimization, floor layout, and other process flow considerations and improve transparency to make more informed strategic business decisions. We plan to help create that tool and other resources to support this industry segment.

Supporting small commercial product. AURI will also explore the role it can play in supporting businesses with small commercial product runs. Creating enough product for market testing is often a challenge for smaller value-added food and ag companies, yet critical to the commercialization process. With our new and larger Waseca site, AURI can offer small batch runs to aid product development, derisk future investment, and accelerate sales. By finding synergies and collaborative opportunities with other existing scale-up equipment segments, we can help make Minnesota a destination for growing food and bioindustrial start-ups.

Advancing a protein sustainability initiative. Finally, AURI will continue its collaboration with the MBOLD coalition to advance a protein sustainability initiative that aims to scale protein businesses, accelerate the connectivity of our robust protein sector, and accelerate innovation opportunities related to food and feed ingredients. Minnesota has a rich history in protein production, from the crops we produce for food and feed ingredients to the animals raised for traditional protein products. The initiative intends to build upon that historical base and further support value chain partners that are investing in protein sustainability endeavors.

STATE FISCAL YEAR 2024

Active Projects and Progress Report



Food	
White Wine Biscuit Technical Assistance	100%
Sambusa Nutrition	100%
Cookie Dough Technical Assistance	100%
Hot Sauce Technical Assistance	100%
Dried Apples Technical Assistance	100%
Milk Jam Formulation	100%
Vegan Pizza Labels	100%
Non Alcoholic Mixers	100%
BBQ Sauce Assistance	100%
BBQ Sauce Labels	100%
Pickle Formula Assistance	100%
Craft BBQ Sauce Scale Up	100%
Leafy Greens Nutritional Panels	100%
Meat Copacking Labels	100%
Mediterranean Meal Nutrition	100%
Jamaican Jerk Sauce Labels	100%
Smoked Pepper Sauce	100%
NA Beer Technical Assistance	100%
Salsa Technical Assistance	100%
Candy Technical Assistance	100%
Drink Mix Technical Assistance	100%
Sunflower Seed Nutrition and Testing	100%
Tea Technical Assistance	100%
Wild Rice Processing	100%
Waygu Beef Technical Assistance	100%
MN Beef Council Phase II Sustainable Packaging	100%
Wild Rice Assessment	100%
Pistachio Spread Technical Assistance	100%
Wheat Analytical Testing	100%
Simple Syrup Tech Assistance	100%
Artisan Cheese Nutrition Labels	100%
Aquafeed Market Assessment	100%
Small Farmer Innovation Center Assistance	100%
Cooperative Development Training	100%
Alcohol Confections Technical Assistance	100%
Soy Nutrition Institute 2023	100%
Matzo Ball Soup Scale-Up	100%
Juice & Hot Sauce Food Safety	100%
Soup and Entrée Technical Assistance	100%
Pizza Scale Up Assistance	100%
Pasta Nutritional Labels	100%
Toffee Nutrition Facts	100%
Frozen Curry Sauce	100%
No Grain Granola Development	100%
Green Sauce Scale Up	100%
Protein Bites Nutrition	100%
Organic Spice Blend Nutrition	100%
Ice Cream Labeling	100%
Women's Health Snack Bar	100%
Chinese Dumpling Labeling	100%
Chocolate Bar Nutrition	100%
Teff Recipe Formulation	100%
Eritrean Beer Formulation #2	100%
Hot Sauce Scale-up Assistance	100%
Asian Sauce Technical Assistance #2	100%
Bone Broth Technical Assistance	100%
Granola Bar Technical Assistance	100%
Gluten-Free Baked Goods Nutrition	95%

Sushi Technical Assistance	95%
Empanada School Lunch Crediting	95%
Gourmet Granola Nutrition	95%
House Salad Dressing Scaling	95%
BBQ Technical Assistance	11%
Seasoning Technical Assistance	1%
Hot Sauce Scale Up	9%
Fruit Beverage Labels	95%
Granola Bar Nutrition Labels	55%
Chickpea Snack Label	13%
Sauce Nutrition Labels	44%
Rotisserie Chicken Seasoning Scale Up	95%
Fish Sauce Labels	33%
Honeyberry Assistance	45%
Confectionery Products from Goat Milk	15%
Aronia Berry Puree Development	45%
Fermented Botanical Beverage Assistance	23%
Food Business Toolbox	33%
Herbal Tea Technical Assistance	27%
Ice Cream Startup Technical Assistance	95%
Food Product Assistance	95%
Mazza Spread Technical Assistance	61%
Cold Pressed Juice Technical Assistance	15%
A2 Creamery Technical Assistance	95%
Pepper Sauce Technical Assistance	73%
Elderberry Syrup Kit	30%
Bean Product Technical Assistance	1%
Honey Product Development	5%
On-Farm Milk Processing Development	95%
Kettle Corn Technical Assistance	50%
Apple Product Technical Assistance	95%
Premium Ice Cream Scale-up	5%
Shrimp Facility Technical Assistance	38%
Creamery Technical Assistance	17%
Nutrient Forward Baking Mix	92%
Paletas (Ice Pops) Scale-Up	95%
Co-Manufacturing Toolbox	57%
Goat and Broiler Market Assessment	95%
Sambusa for School Lunch	87%
Distillery Label Assistance	10%
Wild Rice Processing Study	8%
Regional Locally Grown Food Utilization Expansion	9%
Coop Business Development Assistance	64%
Ethiopian Meal Nutrition	95%
Nepali Dumpling Labels	66%
BBQ Sauce Nutrition and Process	42%
Designer Brownie Nutrition	50%
Cookie Quality and Shelf-Life Guidance	50%
Elderberry Specialty Crop Block Grant Program	36%
Chickpea Products Technical Assistance	71%
Whole Food Bar Development	87%
Sausage Recipe Development	93%
Kernza Value-Added Process Discovery	95%
Kernza Cleaning- University of Minnesota	96%
RFSI Supply Chain Coordination	8%
RFSI Administration and Grant Shepherding	24%

Bioindustrial	
BioMulch Commercialization	100%
Colloidal Barrier Pile Cover	100%
Supplement Development	100%
BioMulch	100%
New Uses Forum 2024	100%
Hemp Business Assistance and Plant Testing	41%
BioMADE	42%
Distillation Assessment	100%
Hemp Erosion Control	100%
Feed Assistance	100%
Green Amonia Fertilizer	100%
Processing Coproduct Anaerobic Digestion Support	100%
Ethanol Fuel Cells	100%
Minnesota Renewable Energy Roundtable (MNRER)	100%
Feed Process Assistance	100%
Growing Soybean Meal Demand - Livestock Economic IMPLAN Analysis	100%
Soybean Meal Fertilizer Market Assessment FY 24	100%
Pelleting Efficiency Trials	100%
Mushroom Growth Media Pasteurization	100%
Grain-based Litter	100%
Residue Assessment	100%
Organic Fertilizer Development	100%
Oat Hull Project	100%
Soil Compost Development	100%
Distillers Grains Assistance	100%
Bio Char Assessment	100%
Drying Technology Assessment	100%
Fiber Assessment	100%
Composting Process Development	100%
New Feed Development	100%
Animal Manure Water Treatment Assistance	100%
Soybean Meal Fertilizer, Compost, Soil Blends Manuf & Distribution Potential	95%
Soybean Rejuvenates for Roofing Applications	95%
Soybean Market Assessment for Increased Utilization in Pet Food	95%
Feed Process Assistance	95%
Soybean Meal Fertilizer Market Assessment FY 25	95%
Least Cost Litter Development	95%
Hemp Seed Pressing	1%
Soluble Fertilizer Development	95%
Oil Press Process Development	76%
Pet Treat Development & Testing	85%
Turkey Litter Utilization	95%
Sugar Beet Coproduct Utilization	48%
Lime Study	91%
Digester Feedstock Test	100%
Poultry Litter Digester Assessmant	100%
Digester Feasibility Assessment	100%
Shortened Digestion Feedstock Analysis	100%
Manure / Coproduct Digester Assessment	95%
Anaerobic Co-digestion Support	30%
Beef Manure for Anaerobic Digestion Support	95%
Characterization of Digestate Solids	95%
Renewable Ammonia Hydrogen	95%
Renewable Natural Gas Study	35%
Green Ammonia for Rural Power	35%

Multi-Area	
Kernza Supply Chain	95%
Hemp Processing	64%
Forever Green FFAR	95%
Grain Drying to Reduce Glucosinolates	42%
Glucosinolate Extraction Discovery	61%
Technical Advisory Program FY24	100%
Central Lakes College-Camelina	100%
ATP BIO Collaboration	100%
AURI Connects: Fields of Innovation	100%
FY24 Minnesota Department of Agriculture Tech Assistance	100%
Webinar Wednesday	100%
Industry Thought Leaders	100%
MUDAC-Midwest Undergrad Data Analytics Competition (MN State - Mankato)	100%
Ag Innovation Campus Support	100%
Technical Advisory Program FY25	95%
USDA-RD Ag Innovation Center	77%
Bold Growth 2022	92%
Life Cycle Analysis	95%
Soy Nutrition Institute 2024	15%
Pennycress IPREFER	39%
Hemp Coproduct Development	32%
Hemp Commercialization	32%
Perennial Flax LCCMR	22%
Winter Camelina Commercialization	20%
Economic Contribution of Agriculture and Forestry to MN	1%
Bold Growth 2024	51%
Whey Testing	100%
Coop Structure Assistance	100%
Empowering Local and Regional Protein Processing in the Upper Midwest	100%
Gummy Product Analysis	100%
Tech Support U of M Plant Protein Innovation Center FY 24	100%
Elderberry Stem Coproduct Analysis	97%
Grain Mill Technical Assistance	9%
Protein Scoping	95%
Barley Malt Plant	1%
Tech Support U of M Plant Protein Innovation Center FY 25	56%
Shrimp Product Analysis	95%
Smoker Fuel Pellet Development	86%
Meat Processing Technical Assistance	81%
Community Navigator Implementation (MBFFA-Bus. Focused on Food and Ag)	100%
Oat Milling Business Development Services	95%

CROOKSTON

510 County Road 71, Suite 120
Crookston, MN 56716

MARSHALL

1501 State Street
Marshall, MN 56258

ST. PAUL

University of Minnesota
1354 Eckles Avenue
St. Paul, MN 55108

WASECA

280 University Drive SW
Waseca, MN 56093

218.281.7600

AURI.ORG