



ANNUAL REPORT
Fiscal Year
2017

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From the Executive Director



While AURI is constantly looking forward to develop ideas, it's also so fulfilling to look back on the past Fiscal Year and see all of the accomplishments, impacts and progress made by AURI and its innovation partners and clients. In Fiscal Year 2017, AURI realized a number of achievements and helped solve many challenges faced by Minnesota's agriculture and small business sectors—all in the pursuit of the organization's mission.

One achievement for AURI was a change to the statute that governs our operations. We asked the Minnesota Legislature to clarify the wording in our statute to allow AURI to work with entities utilizing Minnesota commodities in bordering states (IA, ND, SD, WI). This is a significant change because we now have the opportunity to explore additional ideas, build wider networks for clients and further support value-added agriculture throughout an entire region of the country that will ultimately benefit Minnesota's agricultural industry.

Another accomplishment I want to point out is the significant amount of project and initiative

work done by AURI's staff. Throughout Fiscal Year 2017 we worked on more than 200 projects and initiatives, with 137 of them being new endeavors. Much of this work is the result of AURI's biennial stakeholder analysis project, which identifies new trends and challenges within Minnesota's agricultural community. It's also worth noting the continuing trend of our food and coproduct focus areas being the most utilized by client projects and for initiative development.

In the report that follows, you will learn more about AURI's accomplishments over the past fiscal year as well as gain insight into our operations and focus areas. Together, they provide a useful vignette of the organization's activities in Fiscal Year 2017 and its dedicated effort to bring innovative ideas to commercial reality to positively impact Minnesota's economy.

Regards,

A handwritten signature in dark ink, appearing to read 'Shannon M. Schlecht'.

Shannon M. Schlecht
Executive Director

2017 Board of Directors

Ron Obermoller, Chair
Minnesota Soybean Research
& Promotion Council

**John Gilbertson,
Vice Chair**
Minnesota Farm Bureau
Federation

**Art Brandli,
Secretary/Treasurer**
Minnesota Wheat Research
& Promotion Council

Jerry Hasnedl
Minnesota Farmers Union

John Schafer
Minnesota Beef Council

Larry Johnson
Agribusiness

Jill Zullo
Agribusiness

Sen. Rich Draheim
Minnesota Senate

Rep. Debra Kiel
Minnesota House of
Representatives

From the Board Chair

On behalf of AURI's Board of Directors, I want to thank all of our partners and stakeholders for supporting this organization and its mission during Fiscal Year 2017. Most of all, I want to thank the Minnesota Legislature for their continued belief in AURI's mission and strong support of the work we do to bolster Minnesota's agricultural industry and rural communities.

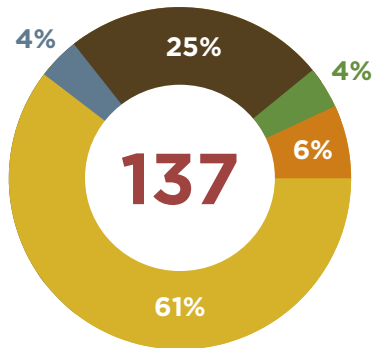
In looking at the achievements AURI made during Fiscal Year 2017, I believe the organization is in a strong position to grow its services and capabilities. With the welcome changes to our statute and funding support, AURI will be able to better provide resources and services to farmers, entrepreneurs and businesses. What's more, with lab enhancements in process and the development of new partnerships, I believe AURI is poised to reach new heights in furthering value-added agricultural innovations to benefit the state and regional agricultural industry.

Thank you for your support of AURI.

Ron Obermoller
Board Chair

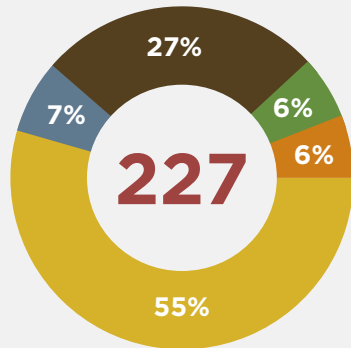
At a Glance

NEW PROJECTS AND INITIATIVES OPENED



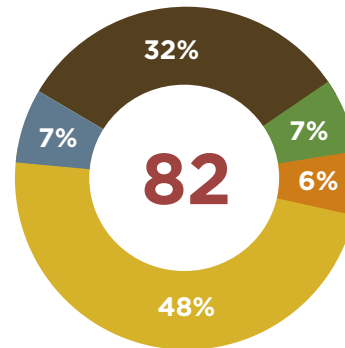
- Food 84
- Biobased 5
- Coproducts 34
- Renewable Energy 5
- Multi-Area 9

TOTAL PROJECTS AND INITIATIVES SERVICED



- Food 124
- Biobased 15
- Coproducts 62
- Renewable Energy 13
- Multi-Area 13

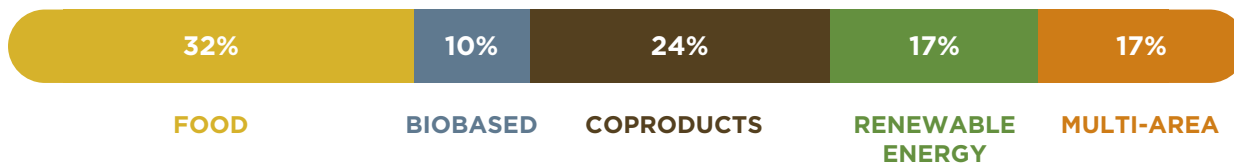
PROJECTS AND INITIATIVES CLOSED



- Food 39
- Biobased 6
- Coproducts 26
- Renewable Energy 6
- Multi-Area 5

Percentages may not total 100% due to rounding.

PROJECT AND INITIATIVE HOURS BY FOCUS AREA



STATE FISCAL YEAR 2017 REVENUE

\$4,213,419

STATE FISCAL YEAR 2017 EXPENSES

\$4,367,940

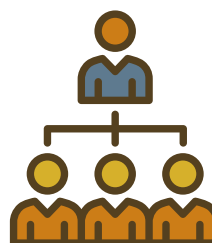
Data provided from AURI's Microsoft Dynamics GP Accounting System. All data based on State FY17 (July 1, 2016 to June 30, 2017)

Client Impact: July 2011 – June 2017



ESTIMATED # OF
JOBS CREATED/RETAINED

537



ESTIMATED # OF FUTURE
JOBS CREATED/RETAINED

306

(in next 5 years)



ESTIMATED NEW
CAPITAL INVESTED TO DATE

**\$89.3
MILLION**



ESTIMATED POTENTIAL
FUTURE CAPITAL INVESTMENT

**\$138.5
MILLION**

(in next 5 years)



ESTIMATED NEW GROSS ANNUAL SALES
RESULTING FROM AURI ASSISTANCE

**\$73.9
MILLION**

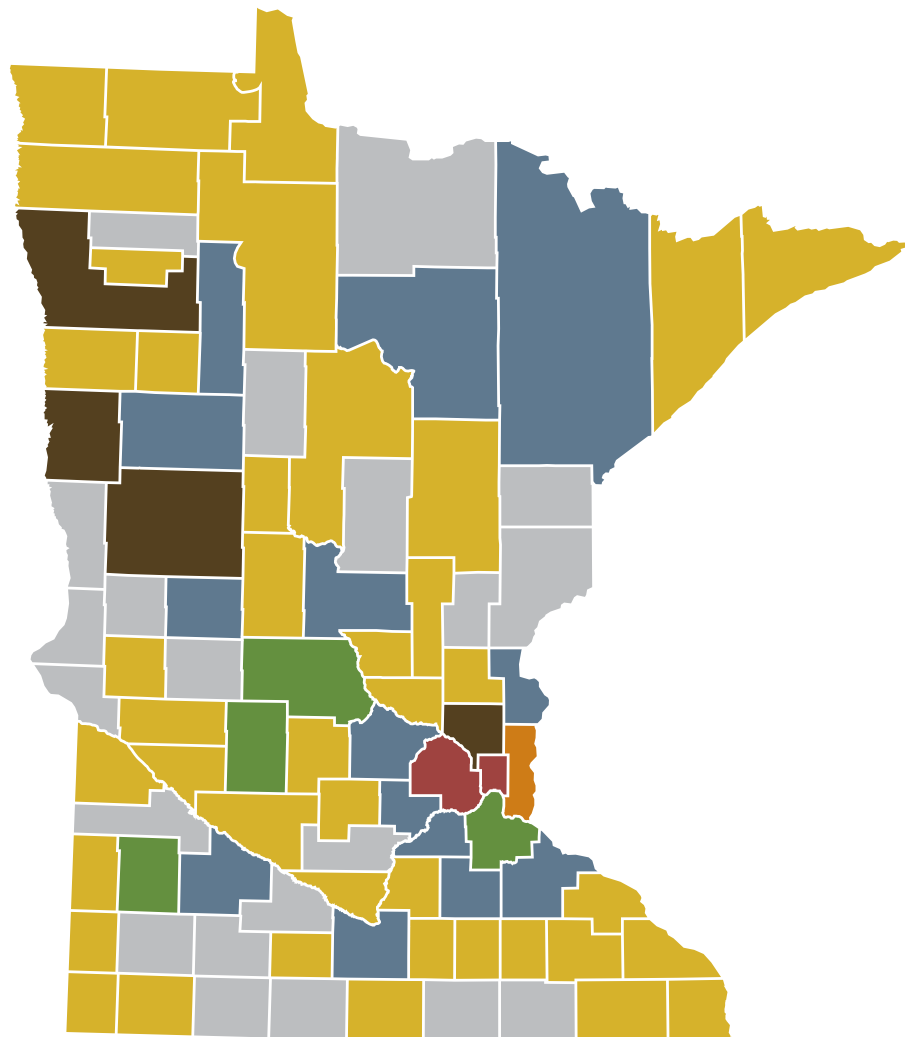


ESTIMATED TONS OF
COMMODITIES UTILIZED PER YEAR

323,451

As reported by AURI clients; represents 50 percent
of projects that exceeded five hours of service.

AURI Client Projects Worked On July 2011 – June 2017



AURI is proud to partner with businesses and entrepreneurs throughout Minnesota. As the map to the left shows, AURI worked on client projects in most of Minnesota's 87 counties between July 1, 2011 and June 30, 2017. The impact of these collaborations, as noted on page 5, were significant to communities throughout the state.

- 1 to 5 Projects
- 6 to 10 Projects
- 11 to 15 Projects
- 16 to 20 Projects
- 21 to 25 Projects
- 26 to 35+ Projects

AURI Mission

Foster long-term economic benefit for Minnesota through value-added agricultural products.

Services

AURI provides a host of services and resources to assist clients in developing their innovations, creating new products and increasing the use of Minnesota agricultural products. Resources include hands-on technical assistance and staff expertise as well as access to lab space—both of which are typically cost-prohibitive to small businesses. In addition, AURI offers services to help entrepreneurs and businesses grow to meet their full potential. Clients have access to commercialization services, which can help determine market entry points, economic assessments and feasibility studies, all of which take the guesswork out of launching a product while providing a fact-based strategy for clients.

AURI also conducts industry initiatives to fill information gaps for public use and convenes industry participants to both inform stakeholders and disseminate information through its Innovation Network Program.



FOOD



COPRODUCTS



BIOBASED



**RENEWABLE
ENERGY**

In pursuit of its mission, AURI focuses its efforts on four key areas of endeavor, which include Renewable Energy, Biobased Products, Food, and Coproducts. Each area is an important component of Minnesota's value-added sector and has the ability to make a difference in the success of the state's farmers, entrepreneurs and businesses. The end result is a positive impact on the Minnesota's agricultural industry and economy, especially in rural areas.

Food

Fiscal Year 2017 was, once again, outstanding for AURI's Food focus area with growth that continues a multi-year trend of significant activity. During this period, the organization's Food Team worked on a multitude of projects from all corners of the food industry. From barbecue sauces to kombucha recipes to vegan pizzas, the Food Team worked on several innovative food and drink products. The variety of projects undertaken stands as a testament to the Food Team's unparalleled expertise as well as the vibrancy of Minnesota's food sector.

The AURI Food Team made major contributions to Minnesota's agricultural and food sectors, working on 100 unique projects throughout the year, of which 71 were new. During that same period of time, the team started work on 13 initiatives and furthered efforts on 11 more for a total of 24 food-related public initiatives.

All told, the Food Team's efforts accounted for 55 percent of the total number of projects and initiatives, combined. In addition, their time spent on these activities accounted for 32 percent of total project hours expended by AURI.

This all translates into hundreds of food and beverage products utilizing Minnesota-grown ingredients taking a step closer to commercialization and availability. It also means the potential creation of hundreds of new markets for Minnesota farmers.

Fiscal Year 2017 was, once again, outstanding for AURI's Food focus area with growth that continues a multi-year trend of significant activity.

In addition, AURI continued to support Minnesota's food and beverage ecosystem by bringing thought leaders together for a variety of innovative roundtables and networking opportunities. Topics ranged from new alternative proteins to food safety and HACCP training. These events offered an opportunity for industry colleagues to connect, share perspectives on new trends and advance food innovation. AURI also continued to support the Minnesota Cup by having its food scientists judge products in the fast growing food/ag/beverage division.

With so much happening in the food sector AURI is confident that its Food focus area will continue to play a major role in Minnesota's entrepreneurial and value-added agriculture sector. This is good news because it offers a lot of future potential for farmers and ag processors within the state.



AURI & The Amazing Chickpea

IDEA TO REALITY

To create a new, plant-based butter spread that can be used in similar ways to peanut butter, but without the peanut allergen concern.

AURI'S ROLE

AURI food scientists worked with the product developer to provide formulation assistance, product sensory analysis and nutritional labeling.

OUTCOME

The Amazing Chickpea currently has three different varieties, which can be found on grocery store shelves and at farmers markets in communities throughout central Minnesota.

Food Efforts



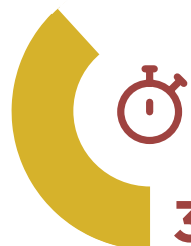
124

**TOTAL PROJECTS
AND INITIATIVES**



55%

**PERCENT OF TOTAL
PROJECTS AND INITIATIVES**



32%

**TOTAL PROJECT
HOURS EXPENDED**

Coproducts

AURI's Coproducts team focused on working with clients to identify new, innovative uses for Minnesota's commodities and ag residues in Fiscal Year 2017. It undertook this work with the end goal of creating additional revenue sources for the state's agricultural producers and processors. In looking at the team's accomplishments, it's easy to see how it contributed to Minnesota's economy.

Over the course of the year, the Coproducts Team began work on 34 new projects and public initiatives. It also continued efforts of an additional 28 projects. This means the group was responsible for 27 percent of AURI's total project portfolio as well as nearly a quarter of all hours expended by AURI's project and technical staff. Of all the focus areas, activity in the Coproducts division was second only to food.

However, numbers don't tell the whole story—the projects, however, do. Great examples include AURI's assistance in developing new fertilizers along with new livestock feed supplements.

Because every project in this focus area utilizes Minnesotan agricultural resources and byproducts, the Coproducts Team achieved the goals set out for it and exceeded expectations.

This is good because it indicates that even though coproduct service demand has been strong in recent years, the horizon for innovative new uses is still wide open for the state's entrepreneurs and businesses.

AURI's Coproducts team focused on working with clients to identify new, innovative uses for Minnesota's commodities and ag residues in Fiscal Year 2017.

Speaking of the future, AURI plans to continue growing its Coproducts division and expanding its lab capabilities. During Fiscal Year 2017 the coproducts lab achieved its goal of adding new oilseed press technology. This has resulted in a number of new clients seeking assistance for this service. Looking forward, AURI plans to expand its coproducts lab further by adding space and upgrading its dryer capabilities. These are much larger goals than in the past, but attainable nonetheless with hard work, support from the legislature and a clear vision of the future for this focus area's potential.



AURI & Steuart Labs

IDEA TO REALITY

Steuart Labs is currently developing a new equine nutritional supplement to improve specific elements of health for horses. When commercialized, this product will make a major impact on many areas of the equine industry.

AURI'S ROLE

AURI assisted Steuart Labs by providing product formulation, manufacturing protocol and product development for three new equine nutritional supplements. AURI also produced test batches prior to product launch to assure proper manufacturing requirements and identify that product specifications are met.

OUTCOME

Steuart Laboratories is currently in the process of moving these four new product lines into the marketplace, which will result in expanded revenue opportunities as well as potential job creation for this southeastern Minnesota company.

Coproduct Efforts



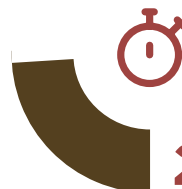
62

TOTAL PROJECTS
AND INITIATIVES



27%

PERCENT OF TOTAL
PROJECTS AND INITIATIVES



24%

TOTAL PROJECT
HOURS EXPENDED

Biobased Products

The efforts of AURI's Biobased Products Team continued to be strong during Fiscal Year 2017. As in the past, it devoted its energy and resources to finding new, innovative biobased products to replace petroleum-based ingredients. The work covered a wide scope of products and processes than can illustrate agriculture's role in a more sustainable economy.

Examples of this can be found in both high and low profile projects, which explored opportunities for new biobased asphalt rejuvenator and sealant products, cornstarch plastics and mushroom-based ingredients for the lotion and cosmetics industry.

But these are just a few examples. Overall, the Biobased Products Team worked on 11 projects and four public initiatives throughout the year. Of those, three were projects initiated during the year and two were new initiatives, which accounted for one-third of all activity in this focus area. The team was also extremely efficient in its efforts, completing its work on 40 percent, or six projects and initiatives over the year.

The efforts of AURI's Biobased Products Team continued to be strong during Fiscal Year 2017. It devoted its energy and resources to finding new, innovative biobased products to replace petroleum-based ingredients.

One additional highlight for the year was the naming of enVerde as AURI's newest Entrepreneur in Residence. This company is heavily involved with biobased solutions and its current project is commercializing technology that can convert a wide range of organic material into synthetic gas, or syngas. Looking forward, AURI sees a lot of promise for biobased solutions. As the world increasingly recognizes the benefits of biobased alternatives to petroleum ingredients, so, too will the demand increase. AURI is ready to meet that need by supporting entrepreneurs and businesses in their quest to bring better, more sustainable options to the market.



AURI & enVerde

IDEA TO REALITY

Minneapolis-based enVerde is working to commercialize breakthrough technology that can convert a wide range of organic material into synthetic gas, or syngas.

AURI'S ROLE

AURI is assisting enVerde through the Entrepreneur in Residence program. This offers access to AURI's facilities in Marshall, Minnesota, and knowledge resources throughout the organization to help further develop enVerde's sophisticated gasification process, which helps move the process closer to commercialization.

OUTCOME

enVerde expects to push the limits of the technology in order to apply what the company learned to the engineering of its first commercial plant.

Biobased Product Efforts



15

**TOTAL PROJECTS
AND INITIATIVES**



7%

**PERCENT OF TOTAL
PROJECTS AND INITIATIVES**



10%

**TOTAL PROJECT
HOURS EXPENDED**

Renewable Energy

AURI understands the importance of renewable energy to Minnesota, its economy and its population. This is especially true with regard to using ag products for things like new or advanced fuel sources, electricity and industrial heating and cooling technology. What's more, work in these areas is important to the nation's future and its dependence on traditional fuel sources.

Throughout Fiscal Year 2017, the Renewable Energy Team conducted work on a variety of projects and initiatives ranging from biomass heating and cooling technology to finding ways to use sugar beet byproducts for energy generation. All told, the team worked on 13 unique projects, of which four were initiatives. Of those 13, five were newly initiated and six were completed.

One highlight of the year was a study conducted with the Minnesota Department of Agriculture, Minnesota's Clean Energy Resource Teams and Viking Farms to determine the feasibility and cost benefits of using woody biomass to heat full-scale, commercial poultry barns. The initial report should be available soon, and will detail the experiment, which is promising and may be the first step in providing poultry producers an alternative to LP fuel--especially in colder climates. While the initial study focused on economic benefits of biomass heat, data

collected also indicates the potential for improved flock health and growth, which requires further validation.

One highlight of the year was a study conducted with the Minnesota Department of Agriculture, Minnesota's Clean Energy Resource Teams and Viking Farms to determine the feasibility and cost benefits of using woody biomass to heat full-scale, commercial poultry barns.

Looking to the future, AURI sees a lot of potential for non-traditional sources of renewable energy. This is especially true for the state of Minnesota and the greater Midwest region as the agricultural infrastructure exists to supply the alternative renewable fuel sources to make any such endeavor feasible. What's more, these latest innovations create commercial opportunity for entrepreneurs and businesses in the region and its potential to strengthen the renewable energy industry. AURI is poised to assist and help bring these ideas to reality.



AURI & Biomass Heating of Poultry Barns

IDEA TO REALITY

Conduct a two-year study to determine the efficacy and financial feasibility of heating poultry barns by burning woody biomass, in place of traditional liquid propane fuel.

AURI'S ROLE

With funding provided by the Minnesota Department of Agriculture's (MDA) Agriculture, Growth, Research and Innovation (AGRI) program, AURI collaborated with the UMN Clean Energy Resource Teams, Minnesota poultry farmer, Bill Koenig of Viking Company, EvenTemp Biomass, GNP Companies (now Pilgrim's Pride), and the Chicken and Egg Association of Minnesota to determine operational requirements for biomass heating, while assessing benefits and overcoming challenges for implementation.

OUTCOME

Given the positive results of implementing this biomass heat application within this project and the improvements developed in the ease of operating the test system, the Koenig family farm (Viking Co.) is actively pursuing the design and financing of a more universally applicable biomass heating plant in its other chicken barn.

Renewable Energy Efforts



13

TOTAL PROJECTS
AND INITIATIVES



6%

PERCENT OF TOTAL
PROJECTS AND INITIATIVES



17%

TOTAL PROJECT
HOURS EXPENDED

Innovation Network Program

AURI's Innovation Network Program (INP) continued to thrive throughout 2017. In pursuing its goal of actively engaging thought leaders, industry professionals, commodity groups and educational institutions, the INP successfully raised awareness of new technology and trends that positively impact AURI clients and the Minnesota economy.

The INP continues to create opportunities for meaningful dialogue between entrepreneurs, businesses and governmental agencies for the purpose of connecting resources and building partnerships. It accomplishes this by hosting a variety of events, including thought leader roundtables, educational industry forums and large innovation events that span multiple industries and disciplines. In doing so, the INP brings individuals together for thoughtful and deliberate exchanges of ideas that have the potential to drive economic and innovation activity for Minnesota's value-added agriculture ecosystem.

In Fiscal Year 2017, the INP hosted the first-ever New Uses Ag Innovation Forum. The event brought together leaders from multiple industries to discuss innovation, funding, entrepreneurialism and other activities in the value-added agriculture sector. With more than 150 attendees, this was AURI's largest event to date. The response from attendees and industry partners was extremely positive, so the INP is already planning the next forum, for April 2018.

The INP executed a total of 16 events throughout the year. This included a forum devoted to soy-based road sealant and preservation technology as well as Food Industry Thought Leader meetings on alternative proteins.

The INP is an important component of AURI and just as integral to achieving the organization's mission. In fact, the INP is often the division of AURI bringing groups together for cross-pollination of innovative ideas.



16

**TOTAL NUMBER
OF EVENTS**



436

**TOTAL EVENT
ATTENDEES**



2,652

**REPORTS VIEWED
AND DOWNLOADED**



AURI & The New Uses Forum

IDEA TO REALITY:

In the fall of 2016, AURI's leadership identified an unmet need in Minnesota for an event dedicated to new uses and value-added agriculture. It was then decided that AURI would host the first-ever forum.

AURI'S ROLE:

A team of AURI staff built this custom event by assembling a variety of panels and keynote addresses from some of the most well respected voices in new uses and value-added agriculture.

OUTCOME:

The New Uses Forum proved to be AURI's most successful and highly attended event. The forum brought more than 150 attendees together to hear about the latest news, technology and philosophies from the value-added agriculture sector. Responses in a follow-up satisfaction survey were so positive, AURI decided to immediately begin planning the next forum, which is scheduled for April 2018.

State Fiscal Year 2017 Financials

STATE FISCAL YEAR 2017 EXPENSES

\$797,735	Operations
\$632,277	Institutional Advancement
\$817,764	Program Support
\$2,120,164	Programs & Services

\$4,367,940 Total Expenses

STATE FISCAL YEAR 2017 REVENUE

\$31,614	Interest Income
\$73,372	Miscellaneous
\$3,643,000	State Appropriations
\$259,845	Private Grants/Outside Sources
\$60,741	Federal Grants
\$25,458	MSRPC - Collaboration
\$119,389	MCRPC - Collaboration

\$4,213,419 Total Revenue

Looking Forward

A bright future exists for AURI. With new innovations developing every day, there has yet to be a slowdown in the discovery and commercialization of value-added agricultural products. This is important to AURI's operations because it indicates a clear, ongoing need for the organization's expertise and services.

To meet this need, continued growth and modifications to AURI's operations and business model are necessary. This natural evolution will help AURI provide even more support for entrepreneurs, farmers and businesses throughout Minnesota than ever before.

The Future of Funding

In an effort to better align AURI's operations with the language of its statute (Minnesota Statute 116V.01), which states AURI shall to the extent possible, earn and receive revenue from contracts, patents, licenses, royalties, grants, fees-for-service, and memberships, the organization is undertaking efforts to grow its funding through these mechanisms. This plan will address most of the elements outlined within the statute and ultimately make AURI a stronger organization.

While this will have an effect on operations and the business model, AURI is confident it will ultimately benefit its clients and partner organizations. Not only will this change provide additional financial resources to strengthen the organization, it will also allow AURI to reinvest in its clients' projects, gain additional tools and lab resources, and strengthen Minnesota's value-added agricultural industry.

Growing for Today and Tomorrow

Since its inception, AURI has limited its focus to Minnesota farmers, commodities and entrepreneurs. The organization is proud of all the work it has done within the state and the support it has provided to Minnesotans for nearly 30 years. However, thanks to a change in the statute governing the organization, AURI can now explore projects in Minnesota's bordering states, to achieve maximum results for Minnesota agriculture. It's expected this change will have a beneficial impact because working with entrepreneurs and small businesses in other states that also utilize Minnesota commodities enhances utilization benefits as well as provides greater exposure to value-added ideas that can be implemented here.

Another area of future growth lies within AURI's existing facilities in Minnesota. For some time now, client and industry demand

outpaced what AURI can provide with the current size of its Waseca facility. Therefore, thanks to the legislative support of providing additional dollars for facility improvements in the coming years, the organization will explore ways to expand its footprint and acquire additional lab and office space in order to meet client project demand.

In addition, AURI continues to explore ways to expand technical resources and analytical tools to meet new client needs. This will continue as part of AURI's quest to best serve the industry. Some recent examples are the addition of an oilseed press in the Waseca facility and the acquisition of resources to conduct high performance liquid chromatography in the Marshall lab. With these additional resources, AURI offers a variety of services to clients who wish to explore new ideas. The result so far has been resoundingly positive, as AURI has acquired new clients and new projects from existing clients.

As you can see, the organization has big plans for the future, and AURI is confident these changes and investments will positively impact the whole of the state's agriculture and small business sectors. This is good news for everyone because it will result in positive economic benefit that supports numerous rural and urban communities throughout Minnesota.

How to Help

If, after reading this year's annual report, you find yourself asking how you can support the good work AURI is doing, while ensuring a bright future for Minnesota's farmers and small businesses, there's a number of ways you can help.

First, because AURI is a registered 501(c)(3) nonprofit corporation, the organization is eligible to receive charitable donations and gifts from the public. This means you can support AURI in a number of ways, the easiest of which is making a donation through the organization's website or GiveMN page.

All of the money collected from AURI's fundraising efforts will go directly back into the organization to expand services through the acquisition of new technology, potentially increase AURI's client capacity through additional staff, and offset expenses directly related to conducting research on innovative agricultural ideas. All of which contribute to AURI being in a better position to help more of Minnesota's farmers, entrepreneurs and small businesses.

Next, if you or someone you know have received assistance from AURI, please share your story. Let your community know about the benefit of collaborating with AURI. At the same time, share it with AURI. It's good to hear about the people and companies the organization has helped throughout the years.

Lastly, if you know an entrepreneur, farmer, or small business owner who has an interest in value-added agricultural products, or products that utilize commodities in an innovative way, be sure to tell them about AURI. Let them know technical resources and commercialization services are available to them. Above all, let them know there's an organization that can help turn their idea into reality.

As you can see, there are a number of ways to support AURI, if you wish. If you are reading this report, we hope you will extend your interest to the organization's future and the shared vision of what we can accomplish together.

If you want to support AURI and its efforts to strengthen Minnesota's value-added agriculture sector, you are invited to make a charitable donation today by visiting auri.org.





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