

Minnesota Senate

Agriculture, Broadband and Rural
Development Committee

2022 Year in Review

AURI's Role and Impact

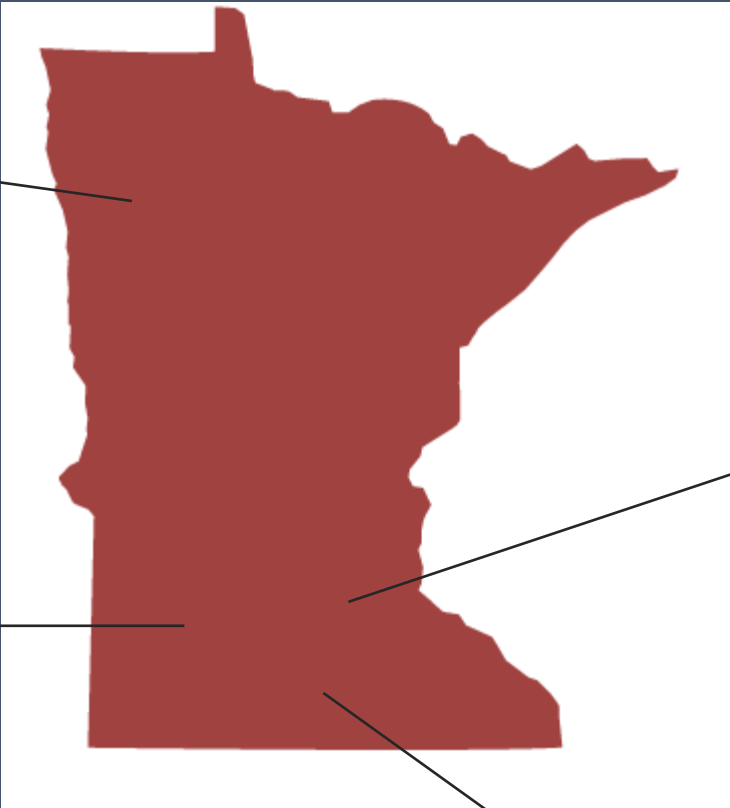
Minnesota's Agriculture Industry &
Innovation Ecosystem



auri
Agricultural
Utilization
Research
Institute

Statewide Locations and Staffing

Crookston
Administrative Office



*35 full and part time staff
Auri.org/staff*

*11 directors – producer
councils, grower orgs,
agribusiness, legislature,
at-large*

Metro
UMN St. Paul

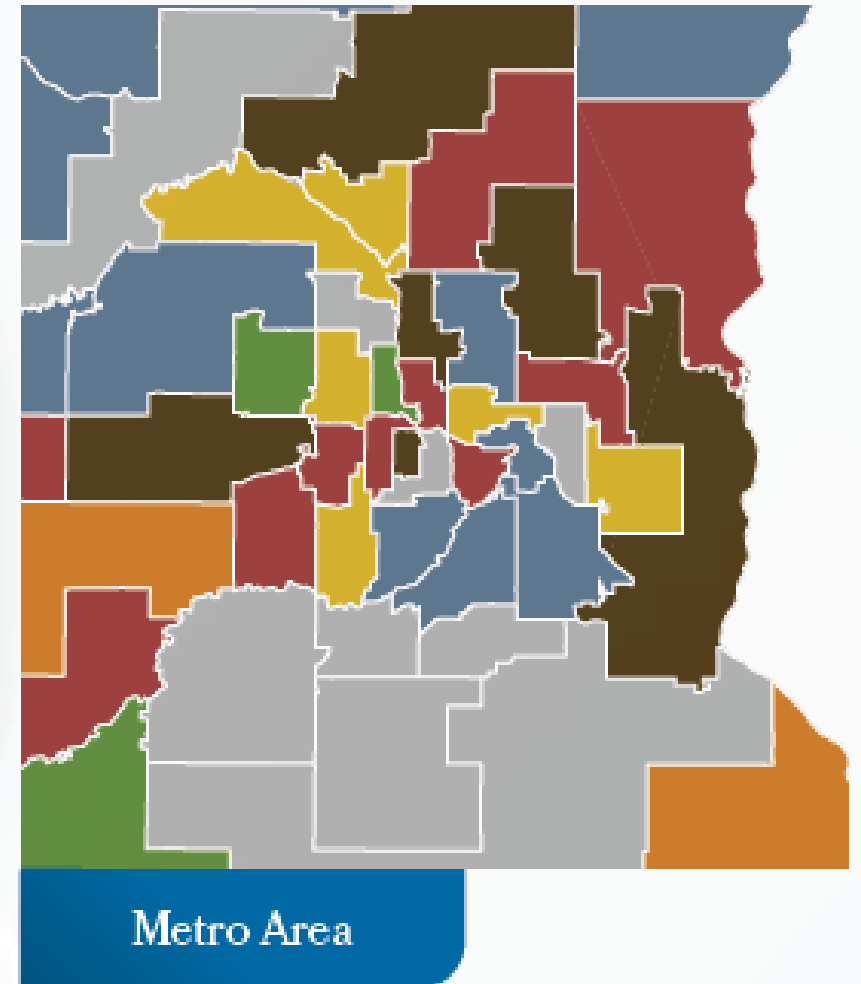
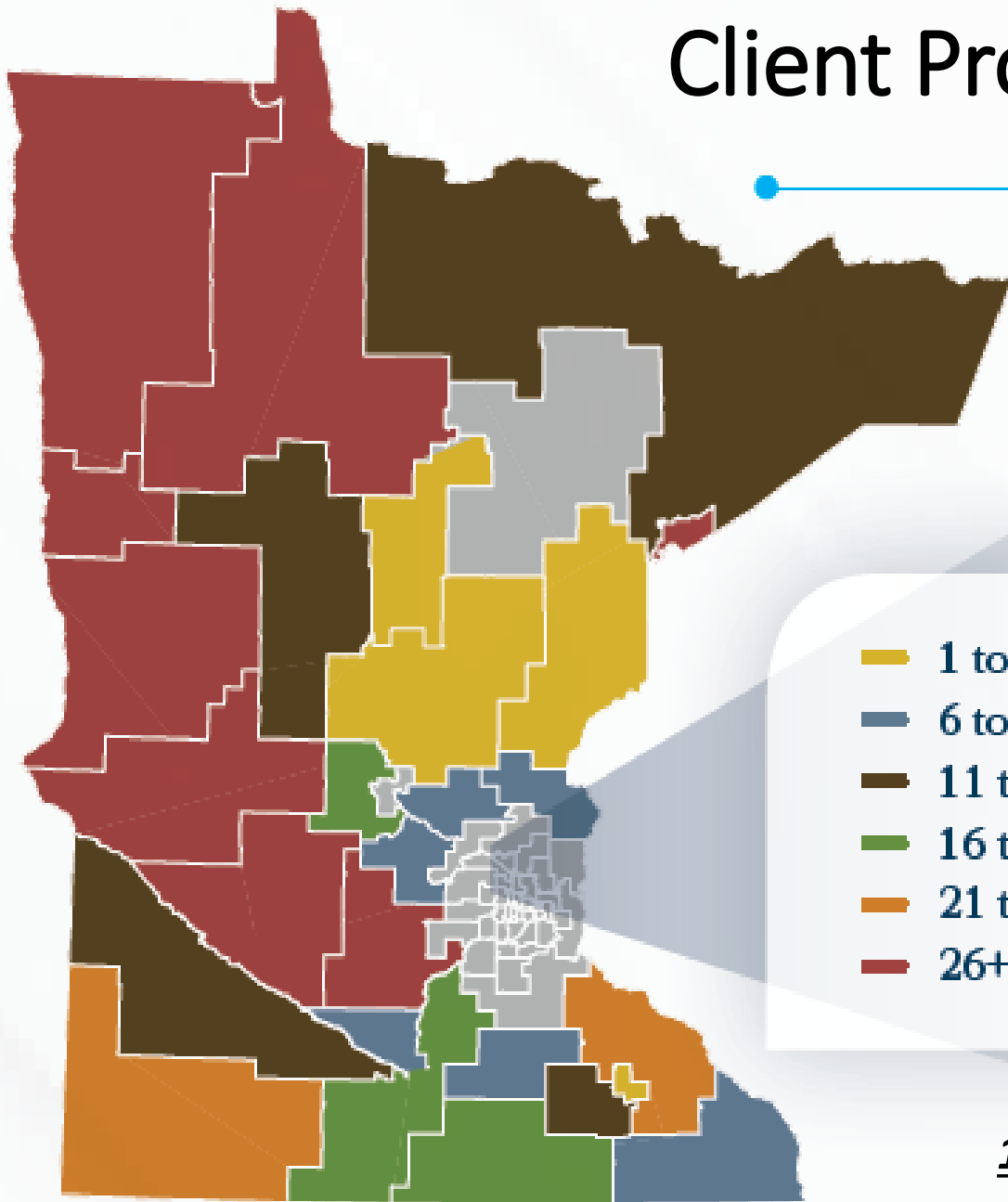
Marshall
Meat and Food lab
Biobased and Renewable Energy
Analytical
Product Evaluation/Sensory

Waseca
Coproducts lab and
annex site



Client Project Locations

Minnesota Senate Districts



10 Year Totals

July 2012 through June 2022

FY22 Activity At a Glance

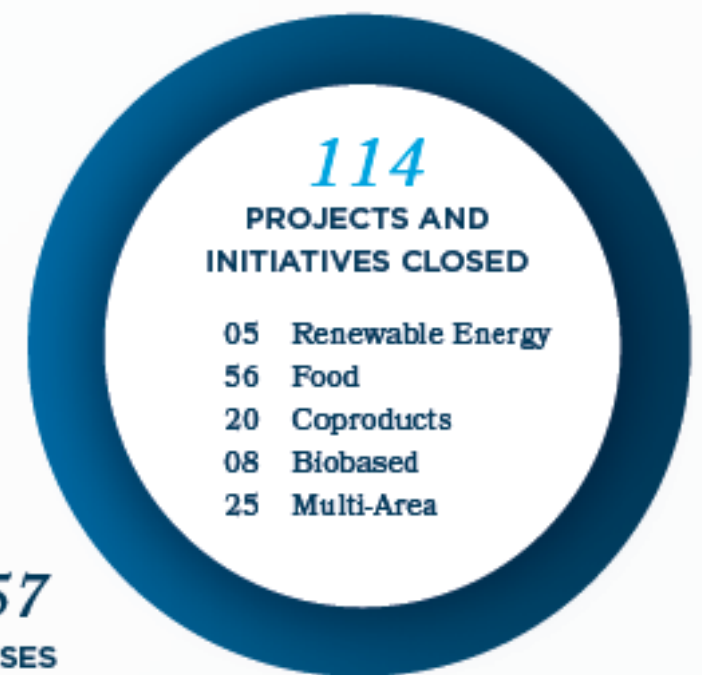
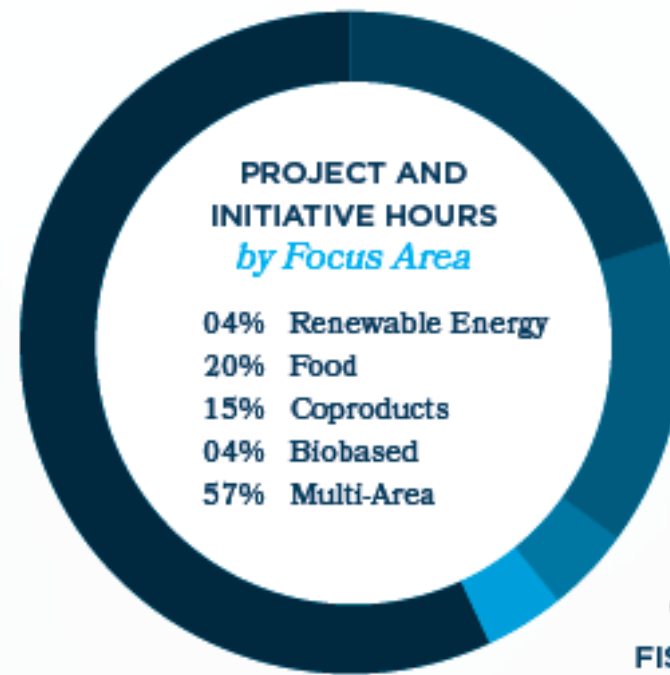
29 AURI CONNECTS EVENTS

2,468 TOTAL PARTICIPANTS AT
AURI CONNECTS EVENTS

42 TOTAL NUMBER OF
STATES REPRESENTED

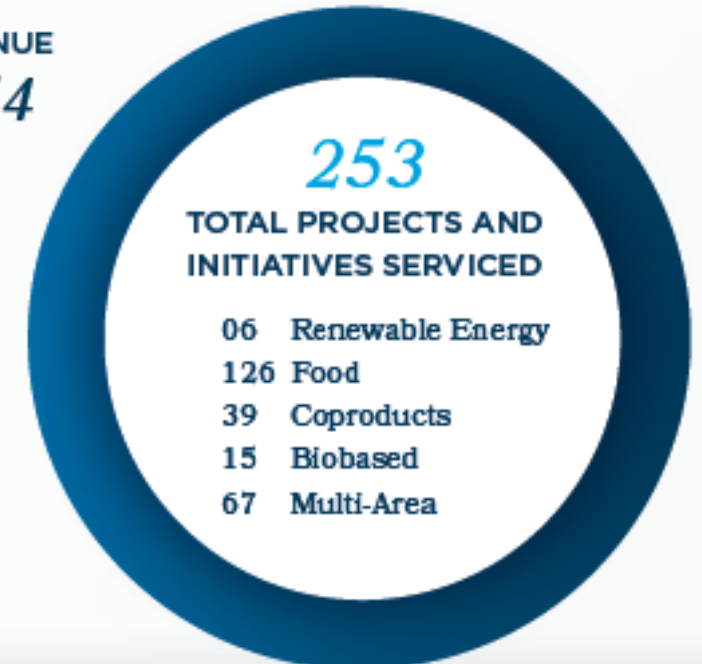
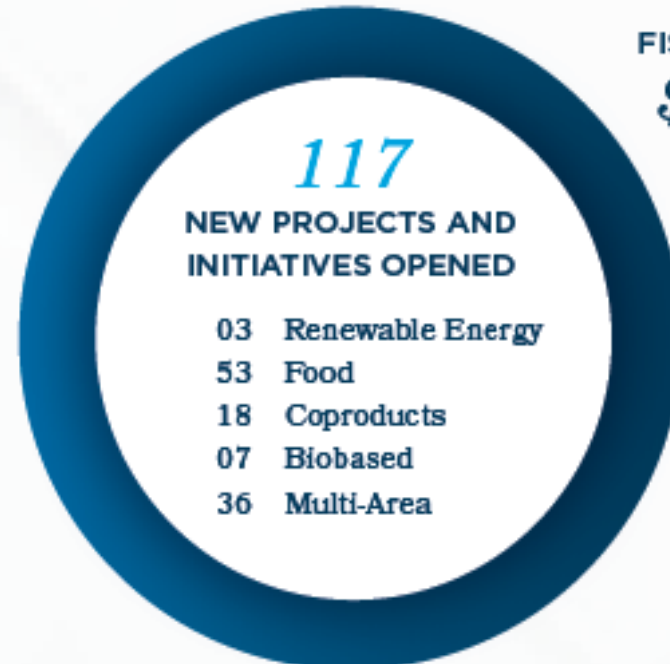
33 TOTAL NUMBER OF
COUNTRIES REPRESENTED

749 NEW PARTICIPANTS AT
AURI CONNECTS EVENTS



\$4,961,957
FISCAL YEAR EXPENSES

FISCAL YEAR REVENUE
\$4,999,754



AURI Programs



COMMERCIALIZATION
SERVICES



PUBLIC RESEARCH
INITIATIVES



AURI CONNECTS



ENTREPRENEUR IN
RESIDENCE

Food

53 NEW PROJECTS AND INITIATIVES OPENED

56 PROJECTS AND INITIATIVES CLOSED

126 TOTAL PROJECTS AND INITIATIVES SERVICED

- ▶ Active Support Area
- ▶ Vibrant Food Ecosystem
- ▶ Diverse Clients

- ▶ Small Meat Processors
 - ▶ Finance
 - ▶ Needs Assessment
 - ▶ Resource Map

- ▶ Initiatives
 - ▶ Wheat FODMAP Project
 - ▶ MN Wild Rice Protein
 - ▶ Commercial Kitchens
 - ▶ Bold Growth

- ▶ Business Development
- ▶ AURI Connects

SimplsTM



ARTISAN GRAIN COLLABORATIVE

- ▶ Technical assistance
 - ▶ Shelf Life
 - ▶ Nutrition Labels
 - ▶ Product Evaluation
 - ▶ Sourcing
 - ▶ Product Development
 - ▶ Process Development



Coproducts

18 NEW PROJECTS AND INITIATIVES OPENED

20 PROJECTS AND INITIATIVES CLOSED

39 TOTAL PROJECTS AND INITIATIVES SERVICED

- ▶ Circular Approaches
 - ▶ Food, Feed, Fuel, Fertilizer
- ▶ Technical Assistance
 - ▶ Dewatering
 - ▶ Drying
 - ▶ Densification/Pelleting
 - ▶ Product Development
 - ▶ Process Development
 - ▶ Nutrient Analysis
- ▶ Hemp decorticator
- ▶ Oilseed pressing
- ▶ Business Development
- ▶ AURI Connects
- ▶ Anaerobic Digestion

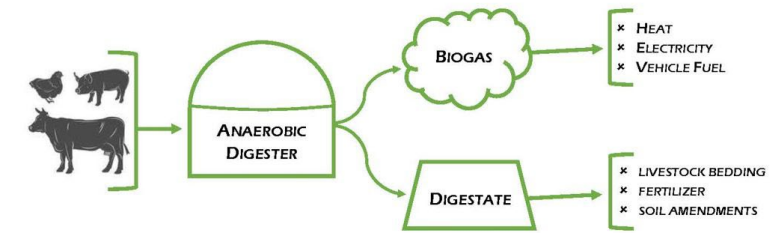


Renewable Energy

- ▶ Biomass Derived Renewable Fuels
 - ▶ Ethanol, Biodiesel, Renewable Diesel, Renewable Natural Gas



- ▶ Initiatives
 - ▶ Hydrogen / Green Ammonia
 - ▶ Renewable Natural Gas / Anaerobic Digestion



03 NEW PROJECTS AND INITIATIVES OPENED

05 PROJECTS AND INITIATIVES CLOSED

06 TOTAL PROJECTS AND INITIATIVES SERVICED

- ▶ Technical Assistance
- ▶ Business Development
- ▶ AURI Connects
- ▶ Carbon Intensity Scores

Biobased

- ▶ Replacing Petroleum Products
- ▶ Technical Assistance
 - ▶ Feasibility Analysis
 - ▶ Market Awareness
 - ▶ Technical Insight
 - ▶ Product Development
 - ▶ Fermentation
- ▶ Initiatives
 - ▶ Erosion Control Road Mats
 - ▶ Road Preservation/Dust
- ▶ Business Development
- ▶ AURI Connects



07 NEW PROJECTS AND INITIATIVES OPENED

08 PROJECTS AND INITIATIVES CLOSED

15 TOTAL PROJECTS AND INITIATIVES SERVICED



Thought Leaders

Fields of Innovation

Webinar Wednesday

Renewable Energy Roundtable

New Uses Forum



Research Initiatives and Public Events



Examples

MN Renewable Energy Roundtable

Product Shelf Life

Nutrient Recycling for Crop Production

Technical Assistance Provider – Meat

Opportunities and Challenges in MN's Aquaculture Industry

Green Ammonia's Future

Comanufacturing Assessment

E-commerce and Digital Marketing

Commercial Kitchen Feasibility

Controlled Environment Agriculture

Life Cycle Analysis

Paving the Way for Ag-Based Asphalt Preservation Solutions

Exploring Food and Fiber Market Opportunities for MN's Hemp Supply Chain

Forever Green collaboration

Hempcrete Demonstration

Tofu/Okara report*

Cultivated Wild Rice report*

Wheat FODMAP/ATI report *

Cash cover crop market opportunities*



Meat / Livestock Initiative



- Mobile meat slaughter grant
- Designated meat science funding
 - Clay Newton, Meat Scientist
 - Laura Bachmeier, Business Development for Meat
- USDA/AMS cooperative agreements
 - Regional & national efforts
 - Tech/Biz assistance

New Resources

Equipment and People

2 Meat Scientists

1 Program Manager for Meat work

Fermenters and Sterilizer

Anerobic Digestion Pilot Size
Equipment

Looking Forward – Gaps and Opportunities

- Equipment gaps – cross functional support for analytics & process
- Renewable natural gas and anaerobic digestion potential
- Small foods & cottage food industry business support
- Sustainable proteins – traditional and novel/alt proteins
- Comanufacturing / commercial kitchen needs
- Hydrogen / green ammonia – fuels, fertilizer, etc.
- Bioindustrial processing & fermentation

CLIENT IMPACT

July 2017 - June 2022

5 Year Totals

*July 2017
through
June 2022*

861

ESTIMATED FUTURE
JOBS CREATED/RETAINED

\$316,207,500

ESTIMATED FUTURE
CAPITAL INVESTMENT

\$291,236,000

ESTIMATED NEW
GROSS ANNUAL SALES

\$117,846,069

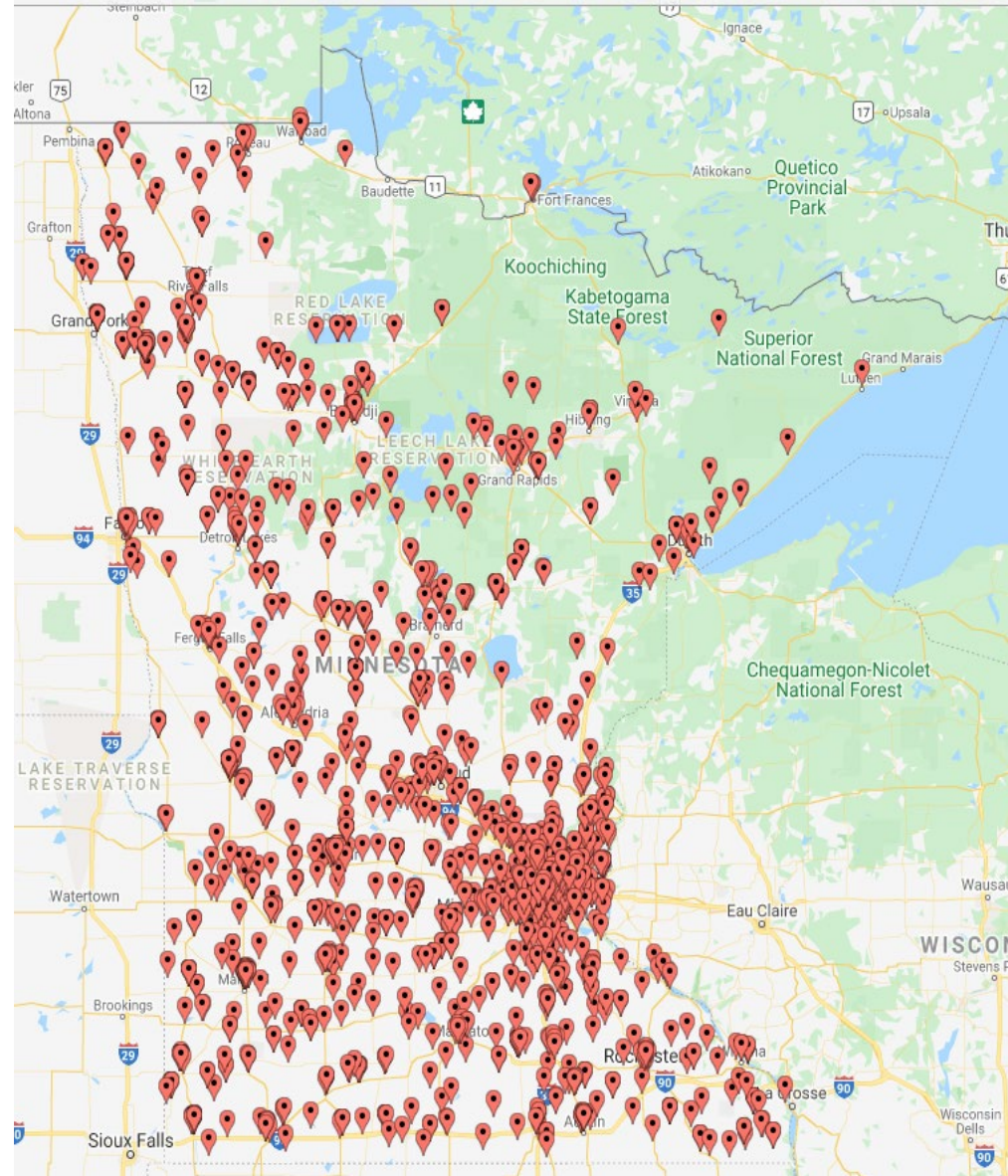
ESTIMATED NEW
CAPITAL INVESTED

413

ESTIMATED JOBS
CREATED/RETAINED

Great state for ag
and food
innovation...

- Historical AURI
- Client Projects
- *1989 to current
- MN Legislature Partnership







Smude's

INFUSED
SUNFLOWER OIL

GARLIC FLAVORED

DIPPING • COOKING • MARINADE
SALAD DRESSING

PROUDLY PRODUCED IN PIERZ, MINNESOTA

NET WT. 8 FL OZ. (236.64ML)

Smude's

INFUSED
SUNFLOWER OIL

GARLIC PEPPER

DIPPING • COOKING • MARINADE
SALAD DRESSING

PROUDLY PRODUCED IN PIERZ, MINNESOTA

NET WT. 8 FL OZ. (236.64ML)

Smude's

INFUSED
SUNFLOWER OIL

MEDITERRANEAN

DIPPING • COOKING • MARINADE
SALAD DRESSING

PROUDLY PRODUCED IN PIERZ, MINNESOTA

NET WT. 8 FL OZ. (236.64ML)

Smude's

INFUSED
SUNFLOWER OIL

ITALIAN

DIPPING • COOKING • MARINADE
SALAD DRESSING

PROUDLY PRODUCED IN PIERZ, MINNESOTA

NET WT. 8 FL OZ. (236.64ML)

Smude's

INFUSED
SUNFLOWER OIL

LIME

DIPPING • COOKING • MARINADE
SALAD DRESSING

PROUDLY PRODUCED IN PIERZ, MINNESOTA

NET WT. 8 FL OZ. (236.64ML)

Smude's

INFUSED
SUNFLOWER OIL

LEMON

DIPPING • COOKING • MARINADE
SALAD DRESSING

PROUDLY PRODUCED IN PIERZ, MINNESOTA

NET WT. 8 FL OZ. (236.64ML)

Smude's

INFUSED
SUNFLOWER OIL

CAJUN

DIPPING • COOKING • MARINADE
SALAD DRESSING

PROUDLY PRODUCED IN PIERZ, MINNESOTA

NET WT. 8 FL OZ. (236.64ML)

Smude's

INFUSED
SUNFLOWER OIL

TOMATO BASIL

DIPPING • COOKING • MARINADE
SALAD DRESSING

PROUDLY PRODUCED IN PIERZ, MINNESOTA

NET WT. 8 FL OZ. (236.64ML)

Smude's

INFUSED
SUNFLOWER OIL

HOT & FIERY PEPPER

DIPPING • COOKING • MARINADE
SALAD DRESSING

PROUDLY PRODUCED IN PIERZ, MINNESOTA

NET WT. 8 FL OZ. (236.64ML)

Smude's Brand™





*New
Starch
Solutions*

