Agriculture and Extension

- Minnesota Agricultural Experiment Station
- Extension
- College of Food, Agricultural and Natural Resource Sciences
- College of Veterinary Medicine

This report was assembled at a cost of less than $500 that included the time of UMN employees only.
MN Agriculture Experiment Station

MN Agricultural Experiment Station
Ag State Special and Operations & Maintenance Appropriation
Fiscal Years 2010 - 2020

Operations and Maintenance Funds
Ag State Special Funds
Building a stronger Minnesota together

Extension plays a key role in the University of Minnesota’s mission: We bring Minnesotans together to build a better future through University science-based knowledge, expertise and training.

Connecting every county with the University of Minnesota

- Extension is in every county and tribal community. Regional offices are strategically located across the state.
- 65 percent of Extension faculty and staff work in Greater Minnesota.
- 35K+ trained volunteers multiply our reach.

2021 budget

**Grants, gifts and other:** $19.9 million (25.8%)
Individuals and organizations provide support for valuable Extension opportunities important to them.

**Counties:** $17.6 million (22.8%)
Investments ensure 4-H and other Extension programs are delivered locally.

**State:** $29 million (37.6%)
Investments are leveraged through collaborations with Minnesota state agencies, including departments of agriculture, health, human services, natural resources and tourism.

**Federal:** $10.6 million (13.8%)
The U.S. Department of Agriculture supports wide-ranging research and Extension education.

MAKING A DIFFERENCE IN MINNESOTA: ENVIRONMENT + FOOD + AGRICULTURE + COMMUNITIES + FAMILIES + YOUTH
During the COVID-19 pandemic, Extension has made a difference in rural, suburban, urban and tribal communities.

More than 1,000,000 people are reached annually by Extension education.

Preparing young people to lead through Minnesota 4-H
4-H kept young people engaged during COVID-19 through 400+ virtual programs, 11,000 educational kits and 89 local showcase events.

Strengthening Minnesota’s food and agriculture
Extension research and education improves crop yields, animal health, farm productivity and water conservation across Minnesota’s 68,500 farms.

Promoting responsible lawn and garden practices through a 2,400-strong Master Gardener volunteer force
Applications for the Master Gardener volunteer program rose by 160% in 2020

Creating healthier families for 150,520 people through SNAP-Ed.
3,572 Minnesotans learned how to create a two-week grocery and meal plan to prepare for possible quarantine for exposure to COVID-19. The plan was made flexible for food shelf clients.

Protecting natural resources, including soil, water and woodlands
Last year, more than 2,000 Minnesota Master Naturalists and community science volunteers found and reported invasive species, restored public lands, and collected scientific data for researchers.

Understanding what makes communities welcoming, economically vibrant and well-led
100+ economic analyses inform local community decisions each year and 25 communities run Extension learning groups.

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Extension 2020-21 budget: $77M

- **State**: 37.6%
- **Federal**: 13.8%
- **County**: 22.8%
- **Grants, Gifts and Other**: 25.8%
MN Extension
State Specials and O&M FY10-FY21
Extension funding trends
We deliver bold science to Minnesota.

With a legacy of bringing discoveries to life through science, CFANS educates the next generation of leaders to anticipate and adapt to a changing state and world, and solves the real challenges of nourishing people while enriching the environments in which we live. We are able to do this through the support of alliances with agricultural and natural resource partners.

10 research and outreach centers across Minnesota

7 continents on which CFANS scientists connect Minnesota with research and business opportunities

27 programs
14 undergraduate and 13 graduate programs in disciplines involving food, agricultural, and natural resource sciences

658 degrees awarded to undergraduates and graduates by CFANS in 2019-20 to help fill critical needs in Minnesota’s agriculture, food, and natural resource workforce

People
Fall 2020
1,046 Undergraduates
595 Graduate Students
230 Faculty
834 Staff
29,644 Alumni

$5 million state investment in agricultural productivity to hire new scientists and technicians to work in seven key areas through the Agricultural Research, Extension and Technology Transfer (AGREETTI) program.
1. Crop and livestock productivity
2. Microbial science
3. Water quality and climate resilience
4. Agricultural technology and decision-making
5. Nutrient recycling and management
6. Agro-ecological innovation
7. Technologies for managing pest resistance and climate adaptation

Undergraduate Hometowns
69% of Minnesota
13% Other States
12% State of Minnesota
13% Other States
6% International

Sponsored grant awards received
Total 2020-21: $72,432,390

Federal funding is used to support science-based responses to emerging issues
• Global food security and hunger
• Sustainable energy
• Forestry and natural resources
• Food safety and nutrition
• Strong rural communities

$1.9 million in CFANS scholarships are awarded to undergraduate students each year

93% of CFANS graduates are employed or continuing their education within 6 months of graduation

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With a legacy of bringing discoveries to life through science, **CFANS educates the next generation of leaders to anticipate and adapt to a changing state and world**, and solves the real challenges of nourishing people while enriching the environments in which we live. We are able to do this through the support of alliances with agricultural and natural resource partners.

**Grand Challenge research and education investments**
- Food security, agricultural productivity
- Invasive species and biodiversity/pest and disease dynamics
- Renewable energy and climate adaption
- Water resources and uses
- Forestry
- Precision agriculture
- Educating future leaders in applied science and technology for agriculture, food and natural resource sciences

**10 research and outreach centers**
across Minnesota

**7 continents**
on which CFANS scientists connect Minnesota with research and business opportunities

**27 programs**
14 undergraduate and 13 graduate programs in disciplines involving food, agricultural, and natural resource sciences

**658 degrees**
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**People**
*Fall 2020*
- 1,926 Undergraduates
- 556 Graduate Students
- 230 Faculty
- 834 Staff
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$5 million state investment in agricultural productivity to hire new scientists and technicians to work in seven key areas through the Agricultural Research, Education, Extension and Technology Transfer (AGREETT) program.

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7. Technologies for managing pest resistance and climate adaption

Undergraduate Hometowns

- 69% State of Minnesota
- 13% Wisconsin
- 12% Other States
- 6% International

70 Minnesota counties represented in the 2020-21 undergraduate population

Sponsored grant awards received

Total 2020-21: $72,432,390

- 24% State of Minnesota
- 38% USDA
- 2% Foundations
- 2% NSF
- 7% NIH
- 13% Business and Industry
- 3% Other Federal and State Agencies
- 5% Other Universities

Sponsored grant awards leverage state funding

$72,432,390 adds to State Special Funding $21,993,054

93% of CFANS students complete an internship in their major

$1.9 million in CFANS scholarships are awarded to undergraduate students each year

93% of CFANS graduates are employed or continuing their education within 6 months of graduation

Federal funding

is used to support science-based responses to emerging issues

- Global food security and hunger
- Sustainable energy
- Forestry and natural resources
- Food safety and nutrition
- Strong rural communities

cfans.umn.edu
The College of Food, Agricultural, and Natural Resource Sciences (CFANS) is a national leader in innovative scientific discovery. The work of its talented researchers cultivates breakthrough solutions to today's greatest challenges, all with an exemplary commitment to diverse views and research ethics.

AWARDS AND SUBMISSIONS

195
Distinct funders provided funding for CFANS researchers in FY20

413
Sponsored project awards received by CFANS in FY20

681
Sponsored and unsponsored proposals submitted by CFANS in FY20

INTELLECTUAL PROPERTY

CFANS propels UMN discoveries. The University is in the top 10 for technology transfer and 3rd in the Big Ten for "innovation impact."

5
New startups launched in FY20

9
New startups launched in past five years

11
Trademarks and patents issued in FY20

233
New inventions in FY20

31
New inventions in the past five years

FUNDING SOURCES

Funding for CFANS' cutting-edge research comes from partners of all sizes and specialties.

Federal 46%
State of Minnesota 25%
Other Non-Federal Governments 11%
Colleges & Universities 9%
Business Industry 12%
Associations 6%
Foundations 11%
OtherPrivate Sources 1%

CFANS’ vision is to advance Minnesota as a global leader in food, agriculture, and natural resources through extraordinary education, science-based solutions, and dynamic public engagement that nourishes people and enhances the environment in which we live.

cfans.umn.edu/research
CFANS RESEARCH

TOTAL SPONSORED PROJECT AWARDS

CFANS received $74,155,703 in sponsored project awards in FY20.

AWARDS AND SUBMISSIONS

195 distinct funders provided funding for CFANS researchers in FY20

413 Sponsored project awards received by CFANS in FY20

681 Sponsored project proposals submitted by CFANS in FY20

INTELLECTUAL PROPERTY

CFANS propels UMN discoveries. The University is in the top 10 for technology transfer and 2nd in the Big Ten for “innovation impact.”

5 new startups launched in FY20

11 trademarks and patents issued in FY20

31 new inventions in FY20

9 new startups launched in the past five years

80 trademarks and patents issued in the past five years

233 new inventions in the past five years

FUNDING SOURCES

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Federal 48%
State of Minnesota 25%
Other Non-Federal Government 2%
Associations 5%
Business & Industry 12%
Colleges & Universities 5%
Foundations 1%
Other Private Sources 2%

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College of Food, Agricultural, and Natural Resource Sciences

2019-2020 Resources: $158.2 Million

- Tuition and Fees: $34.4 Million (22%)
- Operations and Maintenance: $36.0 Million (23%)
- Sales and Other Revenue: $30.5 Million (19%)
- Gifts: $23.0 Million (14%)
- ICR: $7.2 Million (5%)
- Federal Allocation: $5.3 Million (3%)

College of Food, Agricultural, and Natural Resource Sciences

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DVM students
923 applicants for 135 seats in the Class of 2023
The Class of 2023 has 105 students: 55 residents / 50 non-residents
38 Veterinary Food Animal Scholars Track students

Advancements
Heating the demand for veterinary care
A partnership with South Dakota State University will produce more veterinarians in rural areas in Minnesota and the Upper Midwest. Meanwhile, a community medicine initiative is teaching students to work in underserved communities.

Improving COVID-19 surveillance
An on-campus study is investigating COVID-19 infection rates and the performance and efficiency of pooled testing instead of individual testing. Pooled sampling allows targeted testing on those most likely to be infected, supporting our ability to serve animal health during record caseloads.

Measuring antimicrobial use in livestock
With USDA funding, faculty developed pilot systems for collecting and analyzing antimicrobial use data from beef, dairy, swine, turkey, and chicken production settings. The goal is to preserve the ability to use effective antimicrobials to treat human and animal disease.

Enhanced disease surveillance
The Minnesota Veterinary Diagnostic Laboratory is increasing its surge capacity to deliver faster service to farmers when an infectious disease threatens their business. Recent outbreaks have demonstrated the value of fast, accurate results that drive decision making.

Service
Veterinary Diagnostic Laboratory
- Official laboratory of the Minnesota Board of Animal Health
- 1 million procedures completed annually
- Federally accredited and networked

Veterinary Medical Center
- Over 32,000 patient visits – one of the busiest veterinary teaching hospitals in the world
- 57 veterinarians and nearly 140 technicians in 15 service areas

The Raptor Center
- More than 900 raptors treated in 2020
- Educating thousands of people through virtual programming
- Training veterinarians and students from around the world in raptor medicine and rehabilitation

Funding (FY 2020)
- Revenue: $320.9 million
- Expenses: $318.7 million
- Tuition: $49.3 million
- State: $60.5 million
- AAS/MSC: $15.8 million
- Diagnostic Lab/State Special: $1.5 million
- Sponsored Research: $55.1 million
- Clinical & Diagnostic Income: $28.7 million
- Indirect Cost Recovery: $2.2 million
- Other: $9 million

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DVM students

923 applicants for 105 seats in the Class of 2025
The Class of 2021 has 105 students - 55 residents / 50 non-residents
28 Veterinary Food Animal Scholars Track students

Students by track
- Small Animal: 60.4%
- Mixed Animal / Interdisciplinary: 23.6%
- Food Animal: 9.4%
- Equine: 5.2%
- Research: 1.4%

Advancements

Meeting the demand for veterinary care
A partnership with South Dakota State University will produce more veterinarians in rural areas in Minnesota and the Upper Midwest. Meanwhile, a community medicine initiative is teaching students to work in underserved communities.

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The Raptor Center

• More than 900 raptors treated in 2020
• Educating thousands of people through virtual programming
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Funding (FY 2020)

Revenue - $130.5 million

- Tuition - $19.3
- State - $16.9
- AES/MES - $1.8
- Diagnostic Lab/State Special - $3.5
- Sponsored Research - $36.1
- Clinical & Diagnostic Income - $38.7
- Indirect Cost Recovery - $4.2
- Other - $9.9

Expenses - $126.1 million

- Salary and Fringe - $60.1
- Lab/Medical Supplies - $7.1
- Construction/Equip - $2.9
- UM Infrastructure - $18.1
- Sponsored Research - $26.6
- Other - $11.3

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www.vetmed.umn.edu
Revenues – FY2020
$130.5 million

- Tuition: $19.3 million (15%)
- Clinical Income: $38.7 million (30%)
- Sponsored: $36.1 million (28%)
- Indirect Cost Recovery: $4.2 million (3%)
- Other: $9.9 million (7%)
- VDL State Special: $3.5 million (3%)
- AES/MES: $1.8 million (1%)
- Operations and Maintenance: $16.9 million (13%)

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Expenses – FY2020
$126.1 million

- Salary and Fringe: $60.1
- Research: $26.6
- UM Infrastructure: $18.1
- Lab/Medical Supplies: $7.1
- Other: $11.3
- Construction/Equipment: $2.9
Funding Trends – 2013-2020

- State
- AES/MES
- VDL State
- Tuition
- Sponsored Research
- Clinical & Diagnostic Income
- Indirect Cost Recovery
- Other
Thank you!