University of Minnesota
State Funding for
Public Safety, Research, & Agriculture

House of Representatives| Higher Education Finance & Policy | February 27, 2025

UNIVERSITY OF MINNESOTA
Driven to Discover℠

Operations and Maintenance Appropriation

Appropriation	FY 2024	FY 2025	Date
Operations & Maintenance	$620,818,000	$620,818,000	February 20
Riders			
Medical School Development	$15,000,000	$15,000,000	February 25
Health Training Restoration	$7,800,000	$7,800,000	February 25
MnDRIVE: Cancer	$4,000,000	$4,000,000	February 27
Morris Campus: Tuition Waiver Costs	$500,000	$500,000	February 20
Systemwide Safety & Security: Ongoing	$1,000,000	$1,000,000	February 27
Systemwide Safety & Security: One-time	$4,000,000	$4,000,000	February 27
UI Reimbursement	$366,000	$366,000	February 20
UMN & CentraCare	$10,000,000		February 25
Menstrual Products: Ongoing	$110,000	$110,000	February 20
Menstrual Products: One-time	$264,000		February 20

State Special Appropriations – Overview Schedule

State Special Appropriations	February 20	February 25	February 27
Agriculture & Extension Service			$42,922,000
Health Sciences		$9,204,000	
College of Science & Engineering	$1,140,000		
System Special			
Bell Museum			$140,406
Center for Urban & Regional Affairs	$985,497		
Research & Innovation Office			$703,683
CSOM - Economic Research			$28,993
NRRI - Center for Economic Devel			$211,500
UMD Business Economic Research	$39,112		
Labor Education Services	$777,533		
Natural Resources Research Inst.			$6,202,334
Humphrey Forum	$91,942		
U of M/Mayo Foundation Partnership		$7,991,000	

Agenda

1. Public Safety - Erik Swanson, Interim Chief of Police, UMPD
2. Research-Related Appropriations & Riders
    a. Shashank Priya, Vice President for Research
    b. Doug Yee, Masonic Cancer Center
    c. Nikolaos Papanikolopoulos, Director, MN Robotics Institute
    d. Rolf Weberg, Executive Director, Natural Resources Research Institute
3. Agriculture-Related Appropriations
    a. Brian Buhr, Dean, College of Food, Agricultural, and Natural Resource Sciences
    b. Bev Durgan, Dean, University of Minnesota Extension
    c. Annie Brannan, CFO, College of Veterinary Medicine

State Appropriations
2023 Session, Chapter 41
Public Safety

Operations & Maintenance: Public Safety

Systemwide Safety & Security: Ongoing

- $1 million per year beginning in FY 2024
- Systemwide police and security positions, systemwide Security Infrastructure Program coordinator, and associated equipment to expand operations
- Ongoing replacement of security infrastructure

Systemwide Safety & Security: One-Time

- $4 million in FY 2024 and $4 million in FY 2025
- Equipment replacement: cameras, card access equipment, centralized system for lockdown capabilities
- Physical deterrence: new blue phones and cameras
- Strategic security operations center migration

State Appropriations 2023 Session, Chapter 41 Research

Research-related appropriations & riders

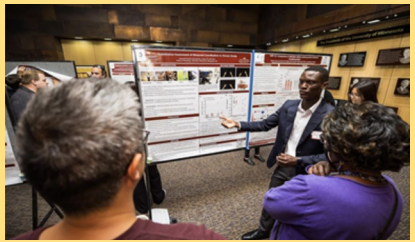
- Introduction and Overview: UMN Research enterprise (**Shashank Priya**)
- MnDRIVE Impacts
  - Cancer Clinical Trials Network (**Douglas Yee**)
  - Robotics (**Nikolaos Papanikolopoulos**)
  - Natural Resources Research Institute (**Rolf Weberg**)
- Grant-in-Aid Program **(Shashank Priya)**
- FY26-27 Budget Request **(Shashank Priya)**

Research and Innovation

Top 10 US Public Institution

(ARWU World Ranking)

Size of Research Enterprise: $1.32 billion in FY 23 research expenditures, ranked #12 among US public research universities (NSF HERD)



Research mission is unique for Minnesota

Strengthens Minnesota's Workforce:

- 15,000+ graduates annually (talent for our headquarters economy)
- 48% of UMTC undergraduates participated in research

Improving Quality of Life for Minnesotans and Beyond:

- Clinical and Translational Science Institute – *Healthy Minnesota*
- Forever Green Initiative – *Sustainable Aviation Fuel, New Crops*

Driving Economic Growth and Innovation

- **Minnesota's largest creator of startup companies**, among top 4 in US; 275 startups since 2006
- **Ex., Niron Magnetics:** Manufacturing plant to be built in Sartell (hundreds of new jobs and revenue creation)

Advancing New Research Priorities

- Focused on improving our lives and shaping the future
- Aligned with **Minnesota's industries and economic growth needs**

Rider: MnDRIVE Cancer Clinical Trials Network

Chapter 41, Article 1, Section 4, Subd. 2:

(c) $4,000,000 in fiscal year 2024 and $4,000,000 in fiscal year 2025 are for the Minnesota Discovery, Research, and InnoVation Economy funding program for cancer care research.

*Other MnDRIVE research areas (Robotics, Brain Conditions, Global Food, and Environment) were incorporated in the University's general Operations & Maintenance appropropriation

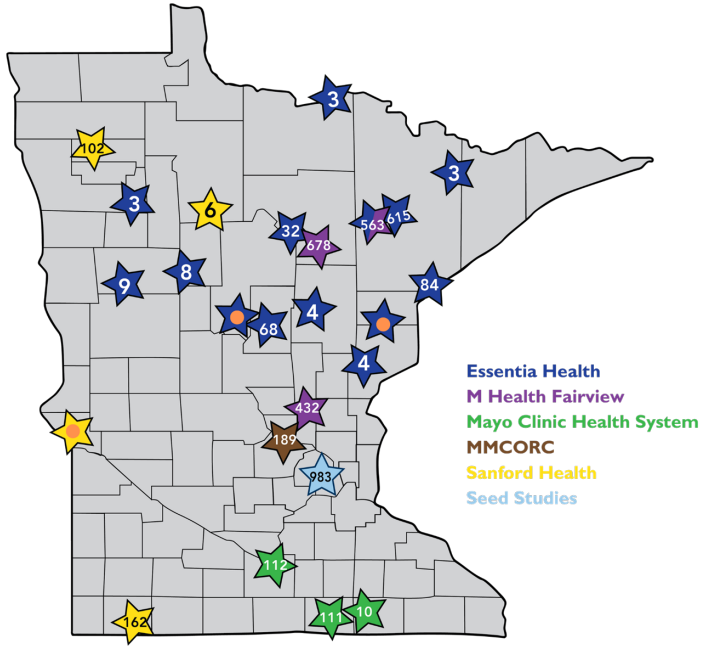
MnDRIVE impacts: Examples

MN Cancer Clinical Trials Network

In Fiscal Year 2024 MNCCTN had **5 healthcare partners, 24 clinical sites,** and **156 personnel** collaborating across Minnesota:

- **Enrolled 214** participants into cancer clinical trials
- **Provided access to 85 unique cancer clinical trials** in prevention, screening, treatment, care delivery, and symptom management
- **Increased awareness of 1,400 Minnesotans** about cancer research at events across the state
- **Awarded $314,995 in grants** to MNCCTN partners and provided support that helped UMN researchers secure additional $500,000+ in external grants

MNCCTN Enrollment at Current & Historical Sites



Enrollment by site as of June 30, 2024
indicates site in development

MINNESOTA
CANCER CLINICAL TRIALS NETWORK

Colorectal Cancer (CRC) Screening in Native Americans

- Native Americans **highest** rates of CRC burden and **lowest** rates of screening in the US
- Partnered with Native American Community Clinic to perform a randomized trial to improve CRC screening rates
- 200 subjects received "usual care" versus "outreach"
  Outreach provided kit for blood in stool, reminder phone calls
  - **3% of usual care** group completed screening
  - **16.8% of outreach** group completed screening
- Multiple other factors need to be addressed: education, advertising, community consensus, logistics

MINNESOTA
CANCER CLINICAL TRIALS NETWORK

Shaukat, et al. Clin Gastroenterol Hepatol 22:1744 2024 PMID: 38365095

MINNESOTA ROBOTICS INSTITUTE

UNIVERSITY OF MINNESOTA

MnRI: A Learning and Financial Engine for Minnesota

MnDRIVE support for robotics has produced an ecosystem with a tremendous return on investment with impacts on education and economics of the state.

MS program in Robotics:
ranked #10 (world), #8 (US)

- 135+ current students, 63 graduates
- 60–70 students helping MN businesses
- Hiring top-quality faculty

Top Facilities:
MnDRIVE funding led to $10 million private donation for **Gemini-Huntley Robotics Research Laboratory**

Creating synergies with **MN companies**, large and small, including Medtronic, Sentera, Histosonics, PAR Systems, and Honeywell

Introducing **10,000+ children** to science and engineering through summer camps and outreach programs

Examples: research successes

- **3D-printed transparent skull implant** could provide insights into brain conditions
- **Artificial Intelligence** in manufacturing, and rural mental health assessment
- **Minnebot,** an amphibious robot that could help improve knowledge of MN water quality
- **Talking robots** that help diagnose autism
- **Compression garments** that promote blood circulation & can treat diabetes, burns, & other serious health conditions

Examples: industry partnerships

- With **Medtronic**, developing 3D-printed, patient-specific models of heart valves and robotics for stroke treatment
- With **Sentera,** a Minneapolis-based drone and sensor manufacturer, designing software to help farmers with information (e.g., plant health, weed detection, & soil crop residue coverage)

Natural Resources Research Institute

Natural Resources Research Institute

Legislative Charter:

To foster the economic development of Minnesota's Natural Resources in a sustainable manner to promote private sector employment.

Minnesota Legislature, 1983

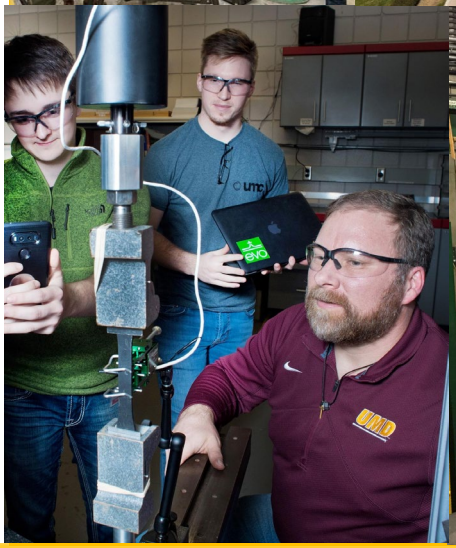
Mission:

Deliver integrated research solutions

that value our resources, environment and economy for a sustainable and resilient future.

Vision:

Discover the Economy of the Future



Institute Highlights

- ✓ UMN System applied research institute
- ✓ UMD student engagement
- ✓ Broad industry and regional relationships
- ✓ “Grams to tons” demonstration capability
- ✓ Integrated science and engineering model
- ✓ Unique capabilities, assets, geographies

❖ *Minnesota’s Applied Research Laboratory*

State Specials
Natural Resources Research Institute

Annual Recurring ($4,413,834/yr)

- Base funding for research personnel; scaled to individual impact expectations
  - ✓ Cross-Institute support, training, delivery
  - ✓ Team leadership; new program development
  - ✓ Grant matching
- Research ”seed funding”
- Reserves to bridge projects; repair/replace instrumentation; emergency repairs

Non-recurring ($2,000,000; FY24/25)

- Provided during 2023 Session to begin to support NRRI facilities upgrades
  - 8 projects completed to date; additional pending project support from UMN F&M

Recent NRRI Impacts

Modernizing Minnesota's Iron and Steel Industry: Partnered with U. S. Steel to demonstrate design for 2024 Keetac plant expansion to Direct Reduced Grade capability. **Impacts:** >$150M project investment in MN, new jobs, and preparation for direct reduced iron.

Reducing Sulfate in MN waters: Partnering with MPCA to drive low CAPEX/OPEX municipal sulfate removal process vs. reverse osmosis. **Impacts:** allow communities to meet sulfate standards economically.

Markets for InnovaTree™: Expanding production from residential to high volume industrial biomass and phytoremediation applications. **Impacts:** nursery contracts, biobased products, remediation.

Engineered Biocarbon for Tomorrow's Steel Industry: Carbon materials for metallurgy applications as recognized leader in this emerging market. **Impacts:** new biomass markets, reduced North American CO_2 emissions of 4.5M - 7.5M tons.

Delivering Data with High Tech Tools:

- *Minnesota Natural Resources Atlas* online data mapping tool for natural resource planning and management. Daily unique users:150 - 180.
- *ForCAST* –provides information to better plan for the state's changing forest ecosystems.

State Special: Research and Innovation Office

The **Grant-in-Aid** (GIA) of Research, Artistry, and Scholarship Program provides grants to support scholarly and artistic activities of faculty and their graduate students to foster excellence. Administered by UMN Research and Innovation Office (RIO).

Year started:	1919 for medical research; 1941 added general faculty research.
# cycles / schedule:	3 / Spring, Summer (bridge prg only), Fall
Categories:	7 total: Bridge Funding, Fields With Limited External Funding, Multicultural Research, New Assistant Professors, New Research Direction, Shared Equipment, Special Requests for Established Investigators' Pilot Projects.
Historical metrics:	$11.8 million awarded (2020-2024) ROI: $1 investment = $11.4 in external funding (FY 2018-2022).
2024 snapshot:	$2,972,655 awarded 74 projects (48%) awarded +52 applications compared to last year (overall)
Funding Source:	RIO O&M, **State Special ($703,683)**, Endowment
Budget for 2024:	$2.5M / yearly allocation

FY26-27 Biennial Budget Request for Research & Innovation

Invest in Minnesota's most promising industries

The University of Minnesota is one of the nation's leading research universities and is focused on service to Minnesotans. The State investment will help catalyze opportunities in our next generation of leading industries.

- **Biomanufacturing:** Research, intellectual property through statewide hub; partner with industry; create/retain talent pool; grow high-quality jobs.
- **Precision agriculture:** Invest in work at our rural Research and Outreach Centers and in St. Paul, and advance the Future of Advanced Agricultural Research or FAARM.
- **Green energy and green iron:** Help Iron Range industries evolve, expand for the future in sustainable ways.
- **Hypersonics:** Help Minnesota-based companies grow and compete; expand aerospace and hypersonics talent base.

$10 Million annual request for each area

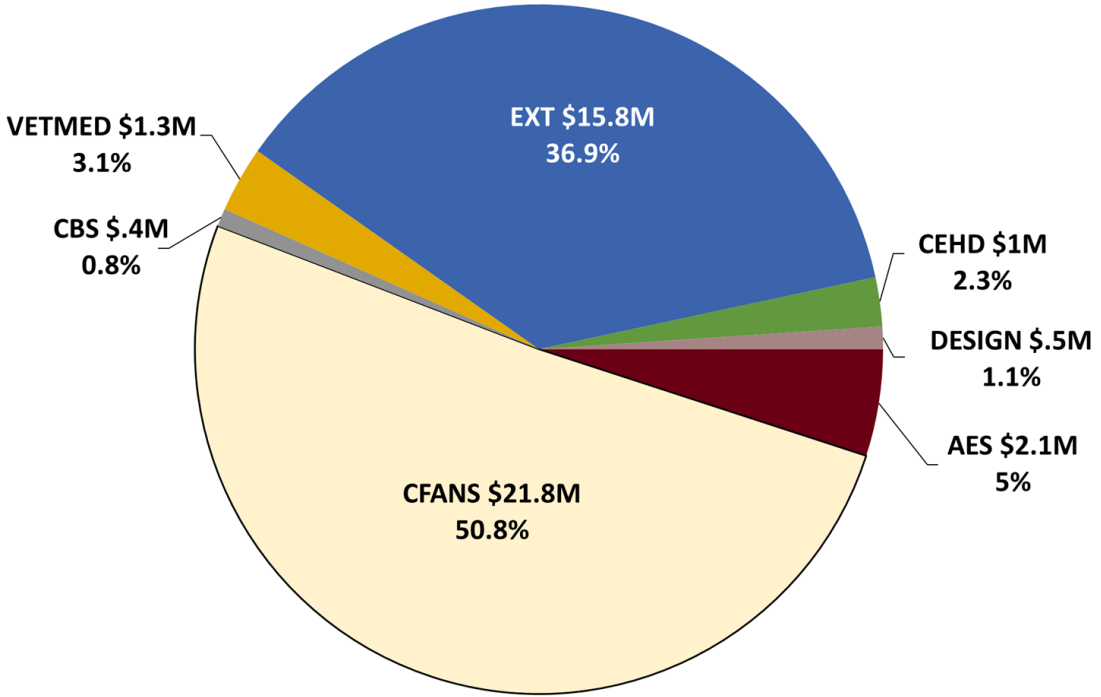
State Appropriations
2023 Session, Chapter 41
Agriculture & Extension State Special

Dean Brian Buhr
College of Food, Agricultural and Natural Resource Sciences

Dean Bev Durgan
University of Minnesota Extension

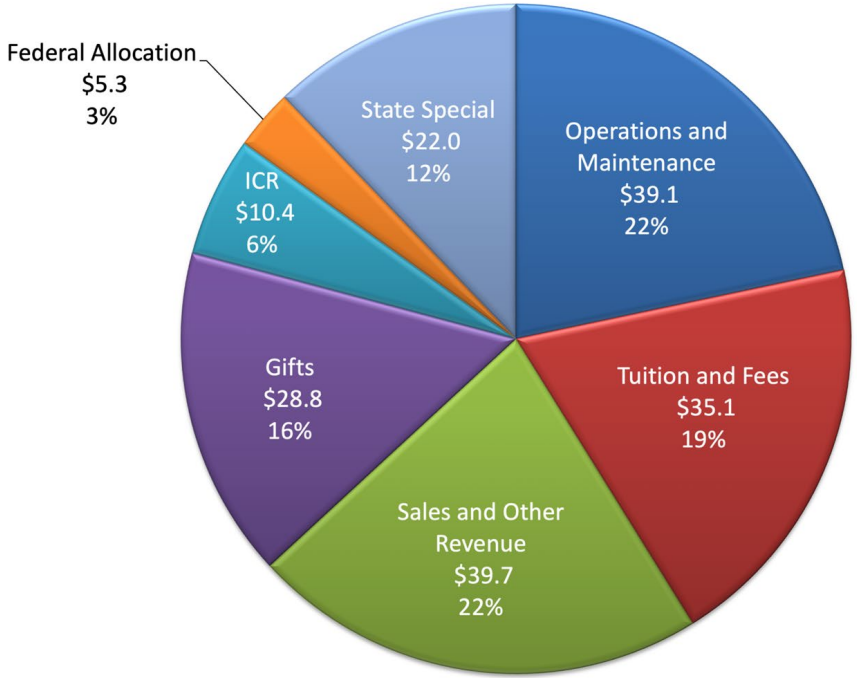
Annie Branan, CFO
College of Veterinary Medicine

Ag State Special Funding: $42,922,498
FY24 Distribution



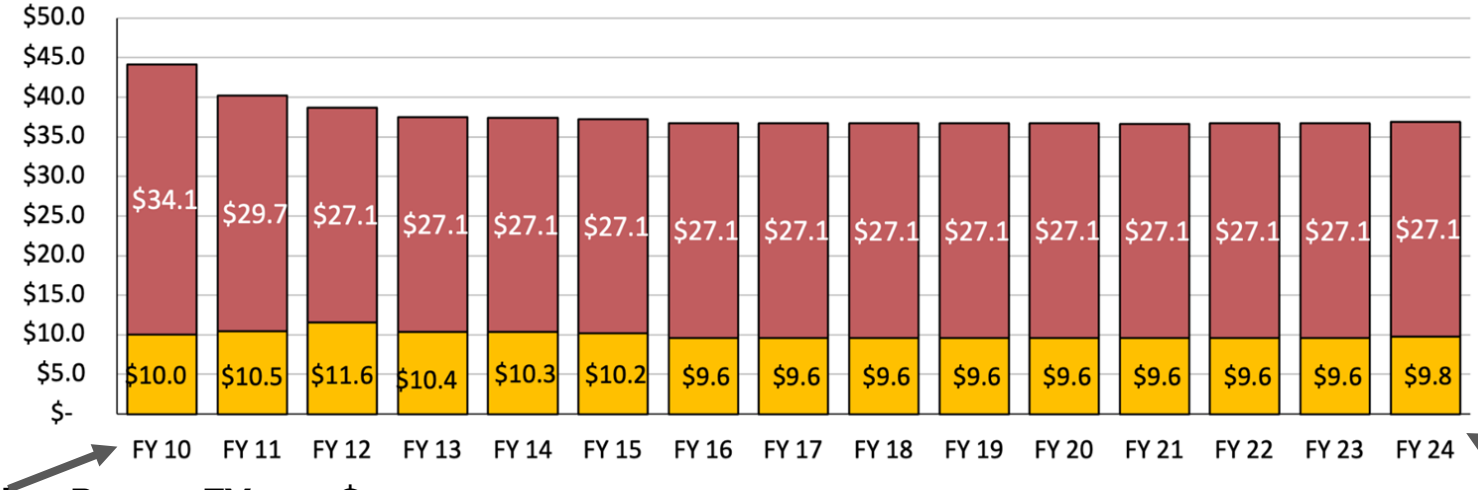
College of Food, Agricultural and Natural Resource Sciences 2023-2024 Resources: $180.4 million

Note: Federal Allocation is from the MN Ag Exp. Station



MAES Ag State Special and Operations and Maintenance Funds (millions)

Fiscal Years 2010–2024



Purchasing Power FY10 ~ $72mm

Purchasing Power FY24 ~ $37mm

CFANS RESEARCH FY24 YEAR IN REVIEW

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.

409 undergraduate students – **approximately 25% of CFANS undergrads** – partook in sponsored research projects in FY2024

581 Active research projects at the **10 CFANS Research & Outreach Centers** in FY24

TOTAL SPONSORED GRANT AWARDS

CFANS received

$75,828,082

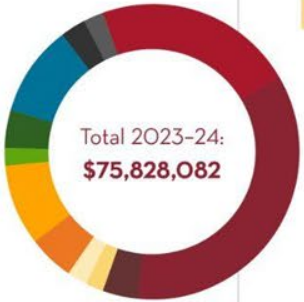
in sponsored grant awards in FY24.

FUNDING SOURCES

Sponsored grant awards received

Percentage by dollar amount

Funding Source	Percent	Amount
Associations	10%	$7,557,171
Business and Industry	3%	$2,452,615
Foundations	2%	$1,410,865
State of Minnesota	22%	$17,228,540
USDA	35%	$26,711,714
DOI	4%	$2,806,371
NIH	2%	$1,444,460
Local Gov't	2%	$1,414,795
NSF	5%	$3,784,990
Other Universities	9%	$6,483,244
Other Federal Agencies	2%	$1,491,212
Other Private Sources	4%	$3,042,105
Total	**100%**	**$75,828,082**



AWARDS AND SUBMISSIONS

150 Distinct funders provided funding for CFANS researchers in FY24

450

Sponsored project awards received by CFANS in FY24

673 New sponsored project proposals submitted by CFANS in FY24

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."**

11 new startups launched in past five years

21 trademarks and patents issued in FY24

102 trademarks and patents issued in past five years

WHERE
passion
MEETS
purpose

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

People

Fall 2024

1,767	Undergraduates
517	Graduate Students
234	Faculty
935	Staff
31,254	Alumni

505 degrees

awarded to undergraduates and graduates by CFANS in 2023–24 to help fill critical needs in Minnesota's agriculture, food, and natural resource workforce

27 programs

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

10 Research and Outreach Centers

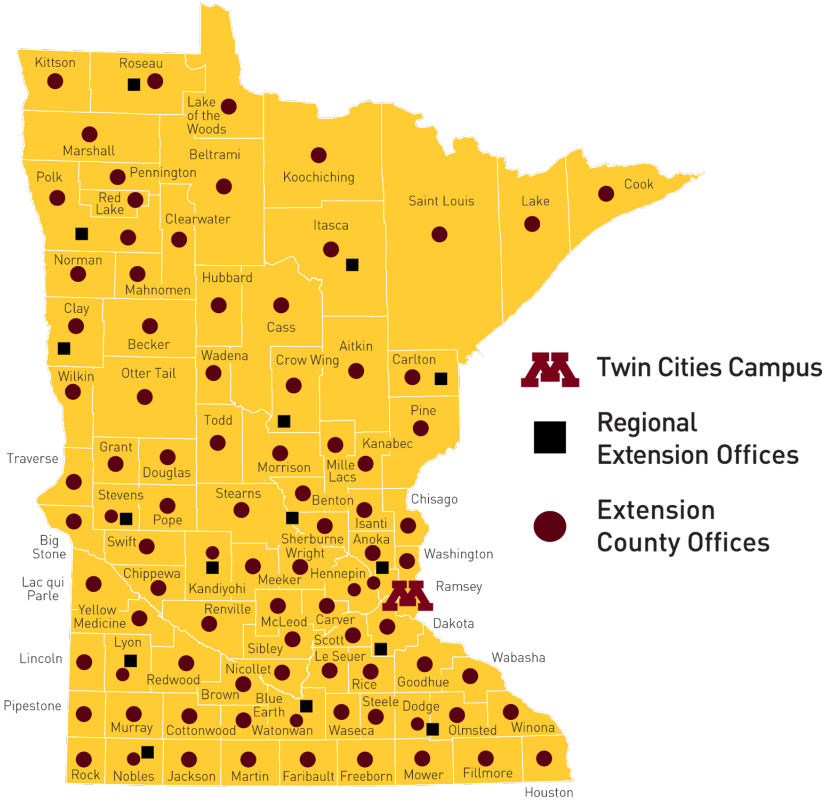
across Minnesota

7 continents

on which CFANS scientists connect Minnesota with research and business opportunities

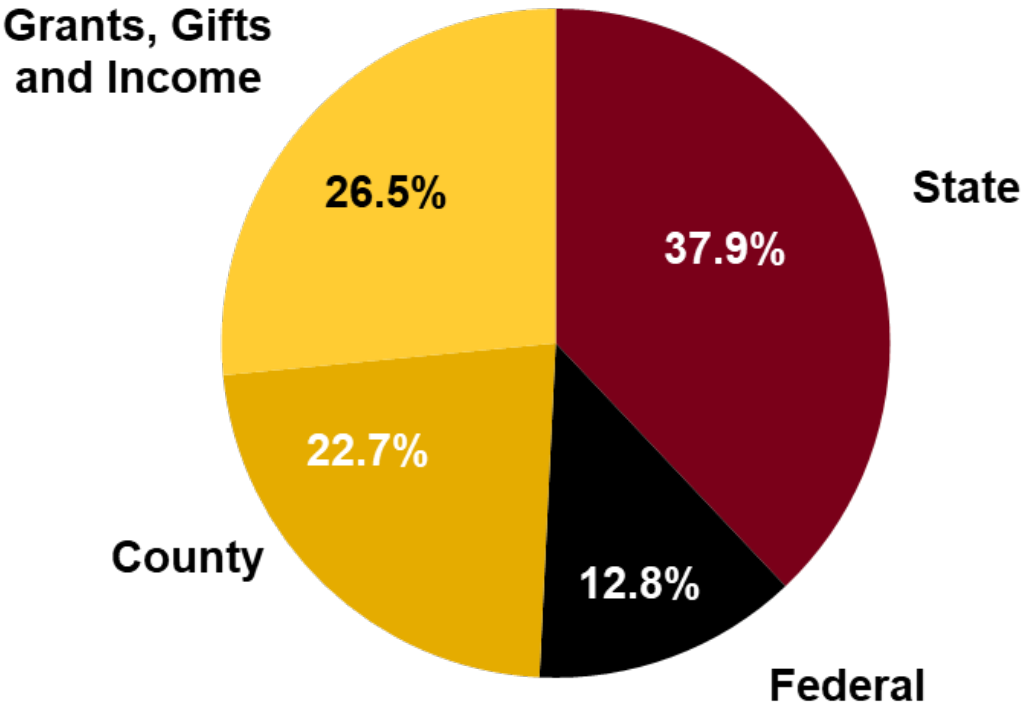
CFANS
COLLEGE OF FOOD, AGRICULTURAL AND NATURAL RESOURCE SCIENCES

University of Minnesota Extension

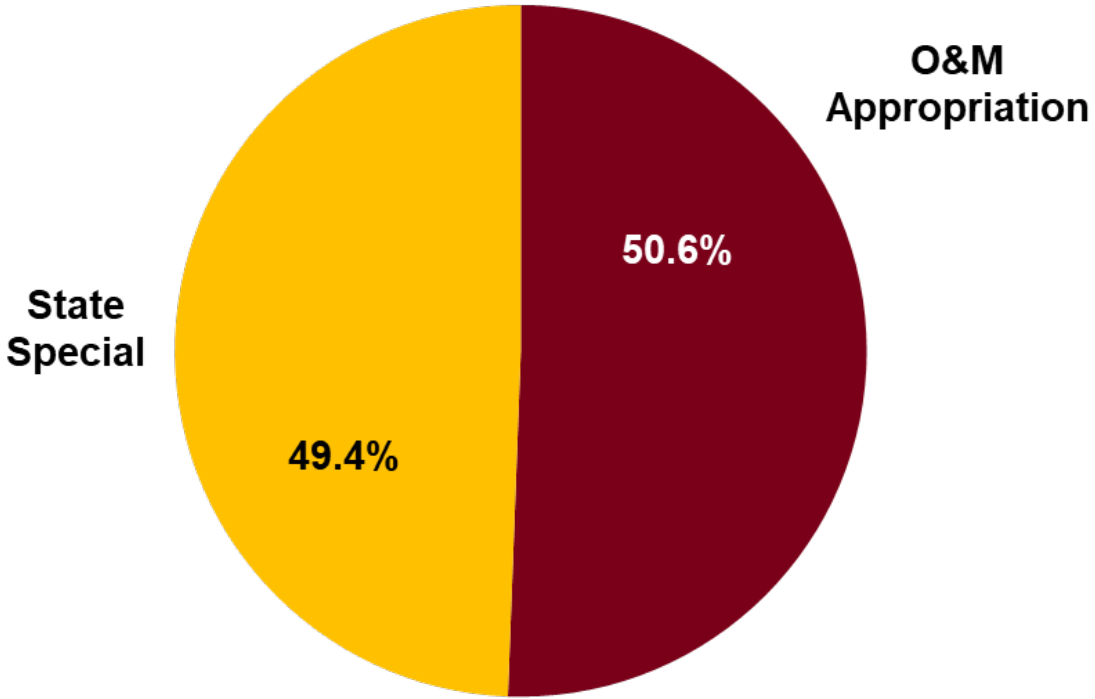


- Connecting rural, suburban, urban and tribal communities to the University of Minnesota
- Over 1M direct connections yearly
- Over 50,000 youth in 4-H and other youth development programs
- Over 14 M annual views of Extension's website
- Extension programs are delivered by over 30,000 volunteers
- Extension programs:
  - Strengthen food and agriculture systems
  - Create healthier families
  - Protect natural resources
  - Strengthen community leadership, economic development and tourism

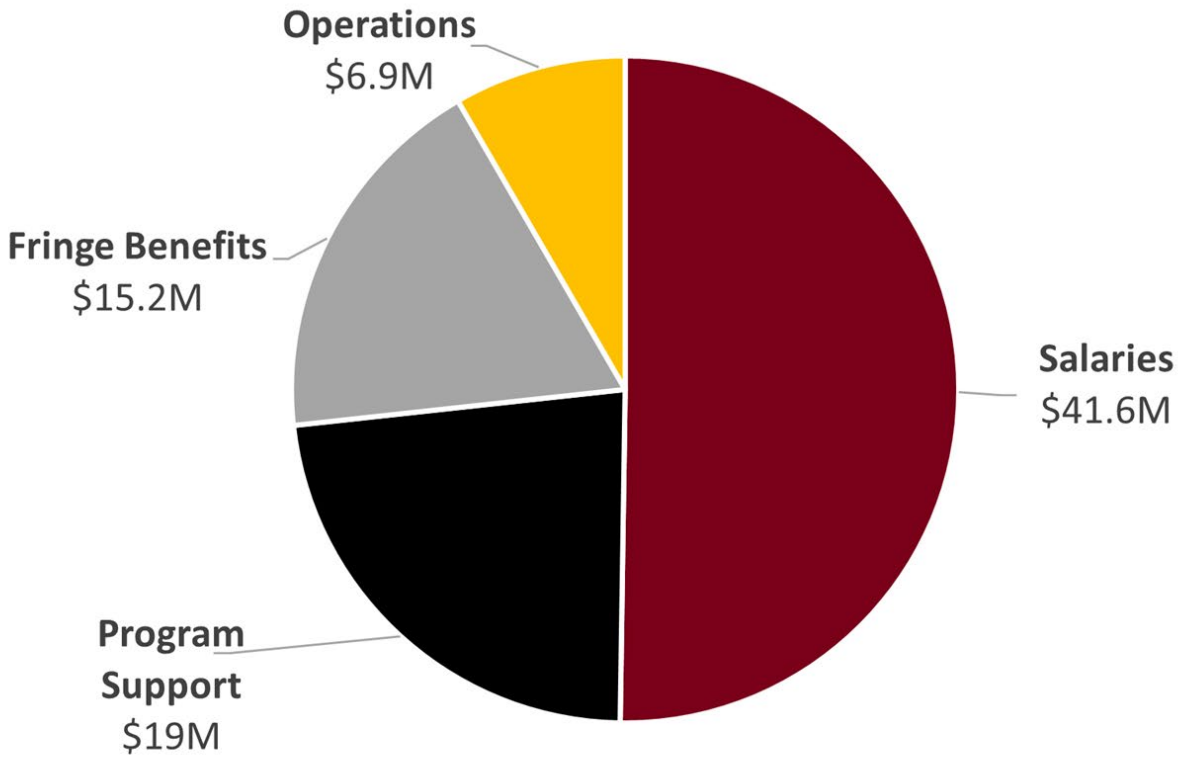
2024-2025 Extension Budget: $84.5 M



FY24 State Special Funding: $32 M



Extension FY24-25 Budgeted



Department of Agriculture and Natural Resource Systems

Biosecurity Education
Rapid, Strategic
H5N1 response

Nutrient management education protects the environment and improves farmer profitability

46.9
million acres

influenced by the **nitrogen and nutrient management conferences** in partnership with Minnesota Agricultural Water Resource Center

4-H is Thriving Across Minnesota

- **50,000+ youth enrolled**
- **9,100+ first-year members statewide, 2/3 of whom are first-generation 4-H families**
- **7,400+ adult volunteers**
- **3,000+ youth workers**
- **9/10 youth said they had opportunities to lead this year in their 4-H programs.**
- **97%** of 4-H youth said they **believe they make a difference** in their communities.

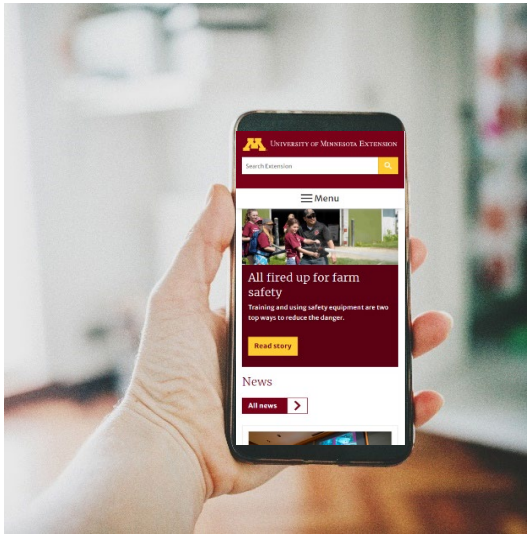
extension.umn.edu

14M

views

New! Spanish site published in 2024

Was this page useful?
4.6 out of 5 stars



Trustworthy
Experienced
Authoritative
Expert

92 (very high website ranking)

Domain rank, out of 100

The Web Team

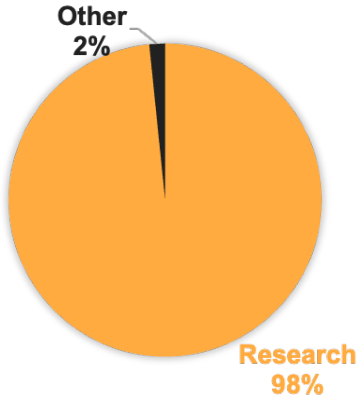
1.4 K Requests

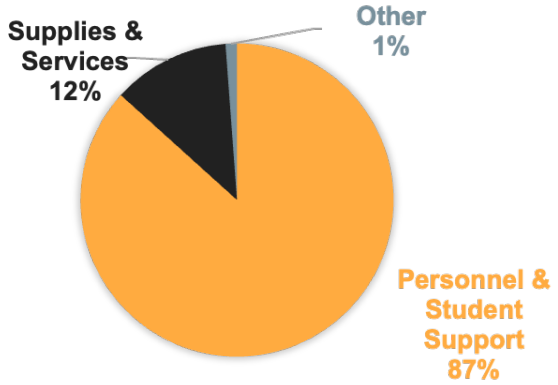
10 hrs Ave. completion

Agriculture and Extension Service State Special
College of Veterinary Medicine

- **Annual Allocation**
  - $1,327,385

- **FY24 Expenditure Overview**





College of Veterinary Medicine Research

- Food Safety & Security
- Food Animal Health & Production
- Ecosystem Health