Regenerative Agriculture

Growing a Healthier Minnesota and Nation

Minnesota House Higher Education Committee
April 9, 2026

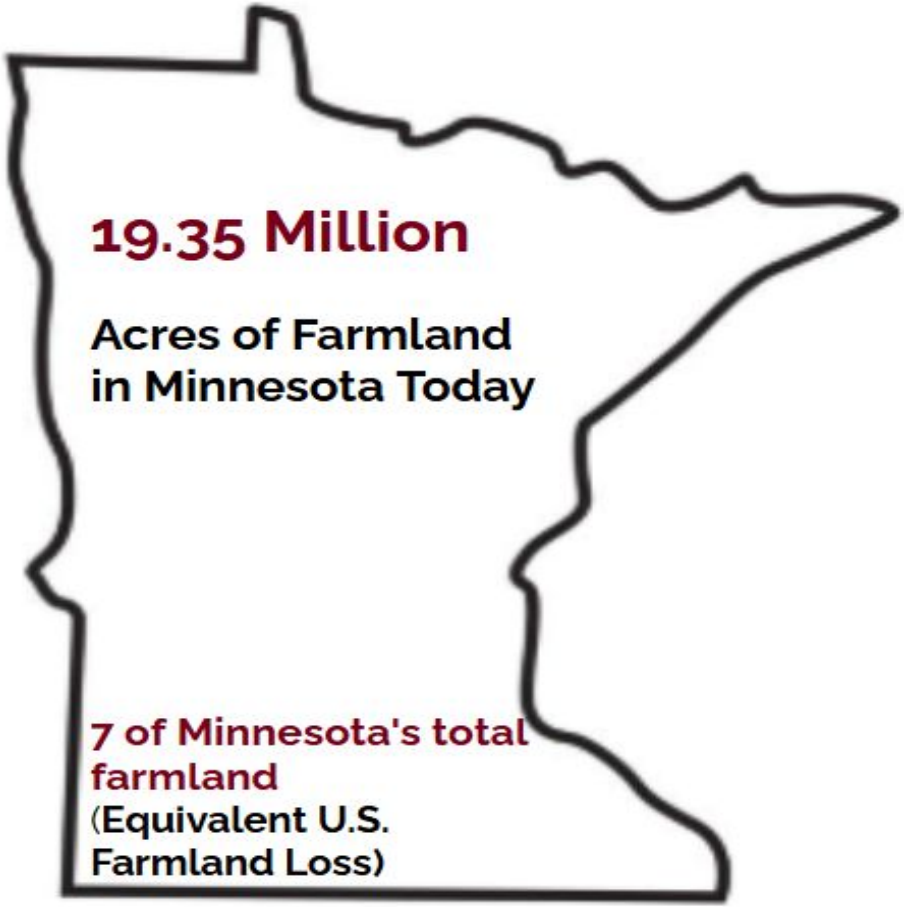
CFANS COLLEGE OF FOOD, AGRICULTURAL AND NATURAL RESOURCE SCIENCES

UNIVERSITY OF MINNESOTA
Driven to Discover®

Land In Farming is Decreasing

140 Million

US. Acres of Farmland Lost in 40 Years.



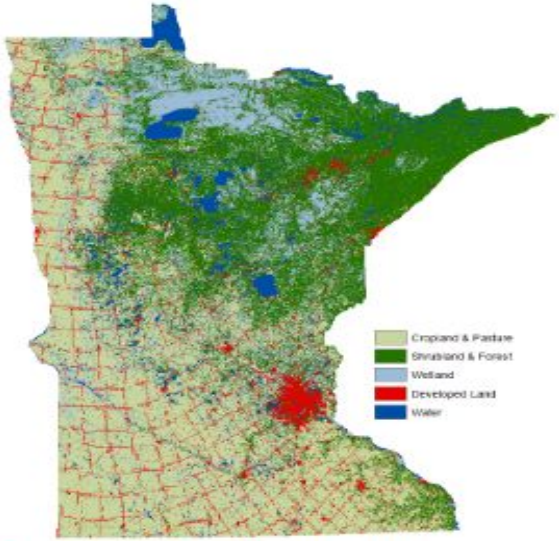
19.35 Million

Acres of Farmland in Minnesota Today

7 of Minnesota's total farmland
(Equivalent U.S. Farmland Loss)

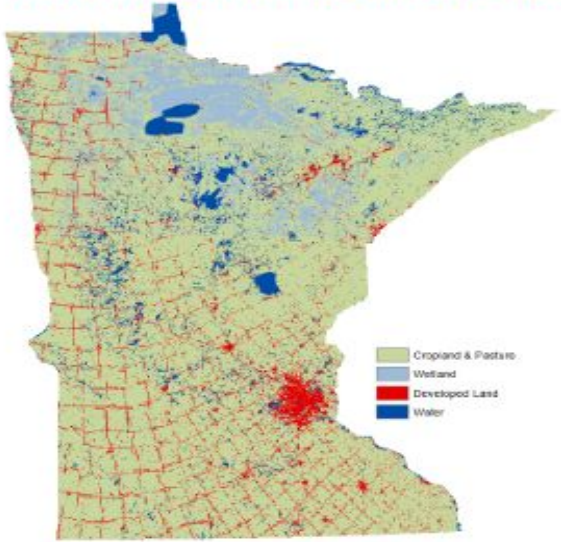
Increasing Land Productivity is Critical to Sustain People and Ecosystems

With Productivity Growth
Retain MN Natural Lands



- **Current Agricultural Land Use**
- **19.35 million acres farmed (26.5mm in 2010)**

Farm all Minnesota + 6.4 mill. Acres of Canada!



- **Land Use Without R&D Productivity**

Regenerative Agriculture: A Minnesota Opportunity

- Feed a growing population while protecting our soil, water and climate
- A One Health approach that connects healthy soils, plants, animals, people and the environment
- Supports Minnesota farmers, rural communities and the state economy through the University of Minnesota's land-grant mission
- Turn research into real-world solutions that strengthen agriculture and conserve natural resources for future generations
- Advancing national health goals: nutritious food, cleaner inputs, healthier soil & water, stronger food-health connection

Why it Matters to Minnesota and the Nation

- More than half of Minnesota is farmland—how we farm shapes our economy and environment
- Regenerative practices reduce erosion, improve water quality and store carbon
- They help farms withstand drought, flooding and extreme weather
- Practices protect drinking water, wildlife habitat and the future of Minnesota farmland

Why University of Minnesota is Central to Regenerative Ag

- Regenerative agriculture requires expertise across science, engineering, health and Extension
- University of Minnesota connects research directly to farmers and communities
- UMN Discovery Catalyzes Businesses to Scale and Deliver (e.g., MBOLD/Greater MSP)

How University of Minnesota Research is Leading

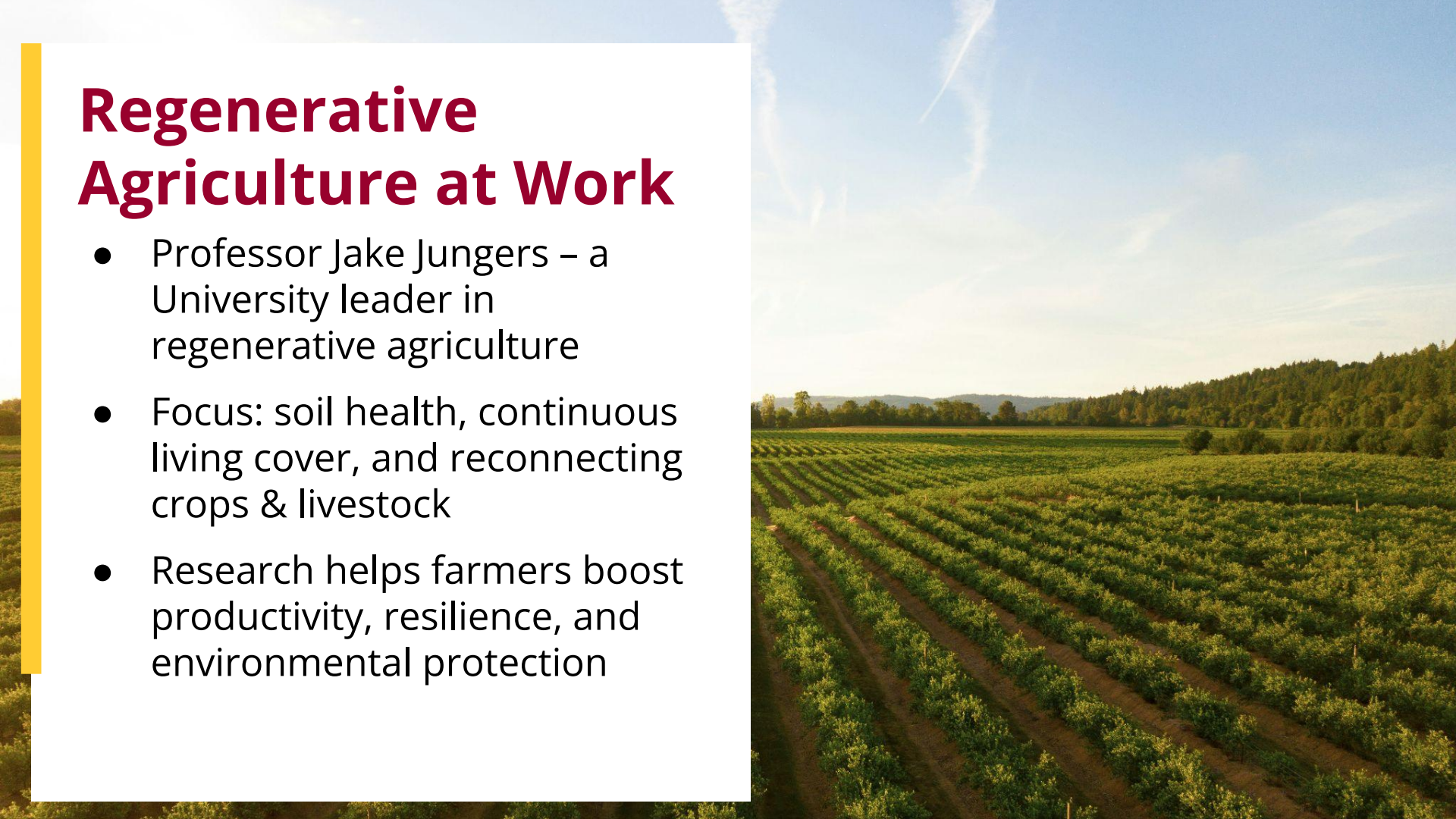
- Advancing regenerative agriculture through LTARN Network, Research & Outreach Centers (ROCs), and Forever Green Initiative
- Research on soil health, cover crops, perennial crops, and integrated crop-livestock systems
- Solutions span traditional, organic, urban and controlled-environment agriculture
- Developing Innovative Uses for Regenerative Crops

One Health Approach Farm Soil to Table

- Healthy soils → healthier plants → healthier animals → safer, nutritious food
- Better soils improve water infiltration, reduce runoff, and increase resilience
- Regenerative ag connects farm to table while conserving Minnesota's natural resources

Regenerative Agriculture at Work

- Professor Jake Jungers – a University leader in regenerative agriculture
- Focus: soil health, continuous living cover, and reconnecting crops & livestock
- Research helps farmers boost productivity, resilience, and environmental protection



Research Goals

- Provide farmers with more crop options
- Enhance regenerative ag practices
- Integrate crops and livestock

Research Approach

- Interdisciplinary - Food Science, Animal Science, Plant Science, Economics, Policy
- Partner with stakeholders
  - Local to multinational businesses
  - Non-profits
  - Farmers
- Community Engaged Research

Preparing the next generation for regenerative agriculture

- A foundation built on people, plants, soils, water, animals, and atmosphere
- AGRO 1103: Crops, Environment and Society
- AGRO 4605: Data-Driven Agronomy

Providing hands-on experiences and leadership training

- Real field crops on the St. Paul Campus
- Access to industry leaders and careers
- Utilizing the latest technology to solve complex problems in agriculture