

MSU EDA University Center for Regional Economic Innovation (REI) Co-Learning Plan

**Addressing Agricultural Workforce and
Infrastructure Shortages through
Innovation Centers**



Project Team

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Project Description

- ▶ This project aims to address **agricultural labor shortages and infrastructure challenges** in Michigan by proposing the development of agricultural innovation centers. These centers would coordinate existing resources, such as private sector expertise, university research, and career and technical education, to provide training and support for a well-prepared domestic workforce. The project involves researching models of agricultural innovation centers from other regions, identifying relevant Michigan stakeholders, and drafting a tailored organizational structure for the state. Stakeholder feedback will refine the plan, which will be shared through networks established during the project. Ultimately, the project will identify the various existing stakeholders needed for agriculture innovation centers and develop and design the organizational structure and coordination to develop these centers.

Agriculture Innovation Centers

► **What, Why, How?**



► **What is an Agricultural Innovation Center?**

- Other states who have implemented this idea to sustain and improve agri-business
- Who funds these centers in other states?
- Who are the partners in other states' centers?

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Agriculture Innovation Center Program

Application Window:

TBA

Program Application Period:

The FY 2025 application period is delayed. Check Grants.gov and this website for updates on the new application period.

Fact Sheet

Program Recipients

Overview

To Apply

Other Requirements

Contact

Events

What does this program do?

Through the AIC program, RBCS makes grants to Centers that provide Producer Services to Agricultural Producers seeking to develop and market Value-Added Agricultural Products.

Program Funding: \$1,500,000

Maximum Grant Amount: \$1,000,000

More About USDA Agriculture Innovation Center Program

Agriculture Innovation Center Program | Rural Development

- ▶ Who may apply for this program?
 - ▶ Commercial Organizations
 - ▶ Indian Tribes
 - ▶ Institutions of Higher Education
 - ▶ Local Governments
 - ▶ Nonprofit Organizations
 - ▶ State Governments

More About USDA Agriculture Innovation Center Program

How may funds be used?

Grant and matching funds may be used to operate an agriculture innovation center, and to provide the following services to agricultural producers:

- ▶ Business development services, such as feasibility studies and business plans..
- ▶ Market development services, such as marketing plans, branding, and customer identification.
- ▶ Organizational assistance, such as legal and technical advisory services related to the development, expansion, or operation of a business.
- ▶ Financial advisory services related to the development, expansion, or operation of a business, such as assistance with obtaining credit for operating costs, training on using financial management software, and guidance on use of cash flow.
- ▶ Process development services, such as engineering services, scale production assessments, and systems development.
- ▶ Product development, such as idea generation, concept testing, feasibility and cost analysis, product taste-testing, demographic and other types of consumer analysis, production analysis, recipe development, evaluation of packaging and labeling options, and brand development for a value-added agricultural product.
- ▶ Value chain coordination or directly working with an agricultural producer to connect that producer to a distribution system, processing facility, or commercial kitchen.
- ▶ Grants to agricultural producers for the above services, where the individual award does not exceed \$5,000.

Application Window:

TBA

Program Application Period:

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Other Agricultural Innovation Centers?

- ▶ Welcome to the Stepan Agricultural Innovation Center - YouTube – Winder, Georgia
- ▶ Home - Chesapeake Ag Innovation Center – Easton, MD
- ▶ Food Processing and Innovation Center – MSU - Okemos, MI
- ▶ AgBioResearch – MSU Centers and Field Station
- ▶ Fertilizer Education | AgroLiquid University – AgroLiquid, St. Johns, MI



Agriculture Innovation Centers

► What, Why, How?

EAST LANSING, Mich. — A Michigan State University agricultural economist has been awarded a \$650,000 grant from the U.S. Department of Agriculture's National Institute of Food and Agriculture (USDA NIFA) to evaluate labor challenges affecting the U.S. food supply chain and identify potential policy options to alleviate them.

(MSU AgBioResearch article, December 9, 2024)

► ... address agricultural labor shortages and infrastructure challenges in Michigan

... as the U.S.-based agricultural workforce — immigrant and nonimmigrant workers settled within the country — continues aging and declining in number, farmers have had to make changes in their production practices, including implementing new technology on farms and contracting workers through third parties.

(Zach Rutledge, assistant professor in the MSU Department of Agricultural, Food and Resource Economics)

Agricultural Labor Issues

- ▶ Declining labor force participation, lower birth rates and a collapse in net migration are combining to squeeze the U.S. **labor supply**, according to a new report from CoBank. ([Are you prepared? Shrinking labor force threatens economy and rural businesses, CoBank warns - Michigan Farm News](#)) (July 16, 2025)
- ▶ A nationwide survey recently conducted by viticulture and enology experts from U.S. land-grant universities, including Michigan State University (MSU), has identified both shared and region-specific challenges within the U.S. wine industry ([Understanding the needs of the U.S. wine industry: Survey results reveal regional challenges - Grapes](#)) (October 11, 2024). This survey identified **labor challenges** as the most significant obstacle for Michigan grape growers.
- ▶ A bill introduced by Rep. John Moolenaar (R-MI) is offering Congress a way to help farmers who are facing **crushing labor costs** through the H-2A guest worker program. ([Moolenaar bill calls for Adverse Effect Wage Rate freeze - Michigan Farm News](#)) (January 22, 2024)

More of Making the Case

Michigan farmers produce roughly 300 different commodities, cementing Michigan as, “the most diverse agricultural state in the country with a reliable source of water,” an expression attributed to Peter Lemmer, executive vice president and chief legal counsel for GreenStone Farm Credit Services. Among these commodities are specialty crops, including many fruits, vegetables, tree nuts, dried fruits and nursery plants.

Current challenges, however, are threatening various specialty crop growers, forcing some to decide whether they should switch which crops to produce or — in some cases — leave their industries completely. **One of the issues is labor, specifically the rising cost of foreign labor and lack of domestic labor within U.S. agriculture.**

MSU Ag Engineer Designing Innovative Technologies To Support Specialty Crop Production

[Yuzhen Lu](#), an assistant professor in the [MSU Department of Biosystems and Agricultural Engineering](#), received a \$197,000 grant in 2024 from the USDA National Institute of Food and Agriculture’s (USDA NIFA) Hatch Multistate Research Fund, administered through [MSU AgBioResearch](#), to develop a vision-guided, selective harvesting mechanism for green asparagus.

Michigan leads the U.S. in asparagus production, harvesting roughly 20 million pounds annually, according to the Michigan Ag Council.

[Supporting specialty crop production- MSU Innovation Center](#) (Jan 14, 2025AgBioResearch)



Top commodities produced in each county based on the total value of sales.

LEGEND

			
Walnut	Pumpkin	Corn	Apples
			
Beef Cattle	Pig	Soybeans	Grapes
			
Rag	Horse	Potatoes	Raspberries
			
Dairy Cattle	Poultry	Christmas Trees	Cherries
			
Dairy Products	Sheep	Sugar Beets	Flowercud
			
Lingping	Sweet Corn	Snap Beans	Squash
			
Dry Beans	Cucumbers	Onions	Carrots
			
Tomatoes	Blueberries	Gals	Agaveculture
			
Caprine Deer	Barley		





Agriculture Innovation Centers

► What, Why, How?

- **Hypothesis:** There is no coordinated organizational structure in place to establish and sustain Agricultural Innovation Centers in Michigan. To create successful and scalable centers, a multi-faceted approach is needed that focuses on identifying technical content, geographical coverage, workforce readiness, reporting and evaluation systems, funding opportunities, market access improvements, and community engagement. These centers should equip producers with knowledge of advanced farming techniques, 21st-century processing technologies, and value-added agribusiness practices. They should also address infrastructure gaps by ensuring equitable access across urban and rural areas, while building workforce capacity to meet the demands of modern agriculture.

Establishing Ag Innovation Centers for Michigan

- ▶ **Previous Examples in Michigan that have elements of Ag Innovation Centers** (from slide 8)
 - ▶ Food Processing and Innovation Center – MSU - Okemos, MI
 - ▶ AgBioResearch – MSU Centers and Field Stations
 - ▶ Fertilizer Education | AgroLiquid University – AgroLiquid, St. Johns, MI
- ▶ **Other Examples/Ideas**
 - ▶ Ag Incubator plan draft (Chris Miller, CEO National Coalition for Community Capital)
 - ▶ West Michigan Agricultural Technologies & Regional Food Systems Initiative (Annika Gačnik - Economic Recovery Corps)

Establishing Ag Innovation Centers for Michigan (cont.)

- ▶ **Who are the stakeholders in Michigan?**
- ▶ **Where would centers be located?**
- ▶ **Who would fund and manage these centers?**
- ▶ **What are some possible organizational structures?**

Who are the stakeholders in Michigan?

▶ ***Education***

- ▶ Career Tech (FFA, 4-H)
- ▶ Community Colleges
- ▶ Universities
- ▶ MSU Extension

▶ ***Private Sector Suppliers***

- ▶ Multinationals
- ▶ Local/regional (AgroLiquid)

▶ ***Producers***

- ▶ Farmers
- ▶ Commodity Groups
- ▶ Michigan Farm Bureau
- ▶ Michigan Agribusiness Association

▶ ***Food Processors***

- ▶ Clemens Food Group
- ▶ JBS
- ▶ Michigan Turkey
- ▶ Michigan Sugar
- ▶ Better Made Snack Foods

▶ ***Local, State & Federal agencies***

- ▶ Michigan Works!
- ▶ Role of Planners and Economic Developers?
- ▶ MDARD
- ▶ LEO
- ▶ MEDC
- ▶ USDA

Establishing Ag Innovation Centers for Michigan (cont.)

Where would centers be located?

- ▶ Geographical
- ▶ Commodity-based
- ▶ Educational Institutions
- ▶ MSU AgBio/Extension Stations
- ▶ Private Sector
- ▶ Michigan Works!

Who would fund and manage these centers?

- ▶ Educational Institutions
- ▶ State/Local Agencies
- ▶ Federal – USDA
- ▶ Private Sector
- ▶ Commodity Groups
- ▶ Farm Bureau

Activities/Next Steps

► On-line Survey

- 1. What part(s) of the agricultural supply chain do you work in? (check all that apply)
 - *Production*
 - *Plant-based Agriculture*
 - *Animal Agriculture*
 - *Materials/supplies*
 - *Equipment*
 - *Transportation Services*
 - *Education/Training*
 - *Regulatory*
- 2. Geographic area(s) where you work/service (check all that apply)

► Phone Interview Questions

- Intro and background of this project
- What is your focus?
- When and how did you get started?
- How are you funded?
- Who are your stakeholders – who do you serve/support?
- Geographic and topical scope and scale?
- Your future plans?

Is the Future Today? – Two new projects with elements of Ag Innovation Centers

Lake Michigan College

Modernizing Curriculum for Asynchronous Wine and Agriculture Education

- ▶ Lake Michigan College is launching an innovative Associate of Applied Science (AAS) in Agriculture, built around flexible, stackable certificates. Students will combine general education with hands-on instruction in two of four pathways:
- ▶ **AgriScience** - for transfer or technical careers in crop science, soil science, and plant biology.
- ▶ **Agribusiness Management** - including contextualized courses in digital marketing, small business, and customer service.
- ▶ **AgTech** - incorporating precision ag, GIS, and elective options in manufacturing technology or electronics.
- ▶ **Wine and Viticulture Foundations** - rooted in existing viticulture and enology courses.

Loamstead

A collaborative of accomplished and well-versed people in the hospitality industry are pursuing an ambitious plan to create a one-of-a-kind hub that amplifies Northern Michigan's wine and agricultural scenes.

- ▶ A \$10 million regenerative agriculture and hospitality destination.
- ▶ The project is planned – not as a sprawling complex – but as a thoughtful integration of vineyard, farm and restored structures.

[Rural ambition: Elevating Michigan's wine and agricultural future](#)



Thank You! – Comments, Questions, Advice

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