

MSU Extension's Commitment to Improving Water Quality

Dr. Ron Bates

Director, Agriculture and Agribusiness Institute

Michigan State University Extension



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Our History

1855: Founded as Agricultural College of the State of Michigan

1862, 1890 and 1994: Congress passes Morrill Acts

1912: Michigan legislature gives county boards authority to appropriate funds for Extension teaching and research

1914: Congress establishes the Cooperative Extension System through the Smith-Lever Act



University Connectivity

MSU College of Agriculture
and Natural Resources

MSU AgBioResearch

MSU Extension

Expertise in 6 MSU Colleges:

- Arts and Letters
- Communication Arts and Sciences
- Engineering
- Natural Science
- Social Science
- Veterinary Medicine

Opportunities with 4 Colleges:

- Education
- Human Medicine
- Nursing
- Osteopathic Medicine



Agriculture and Agribusiness

Increase farmers' success while protecting the environment, ensuring food safety, reaching new markets and advancing agriculture through applied research.

We want to ensure agriculture professionals have a thriving knowledge base to become more competitive locally, regionally and internationally.

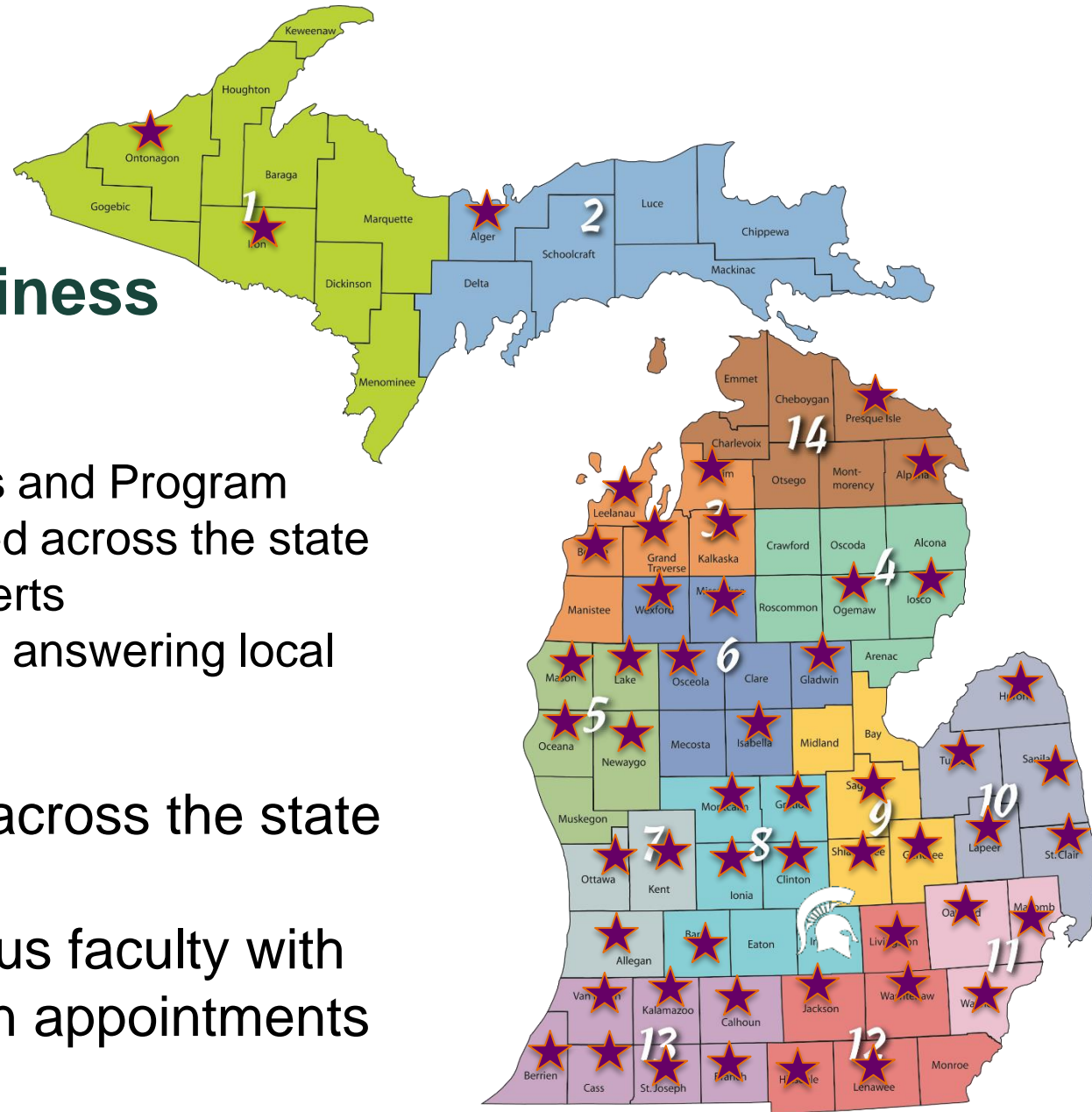


Agriculture and Agribusiness Programming

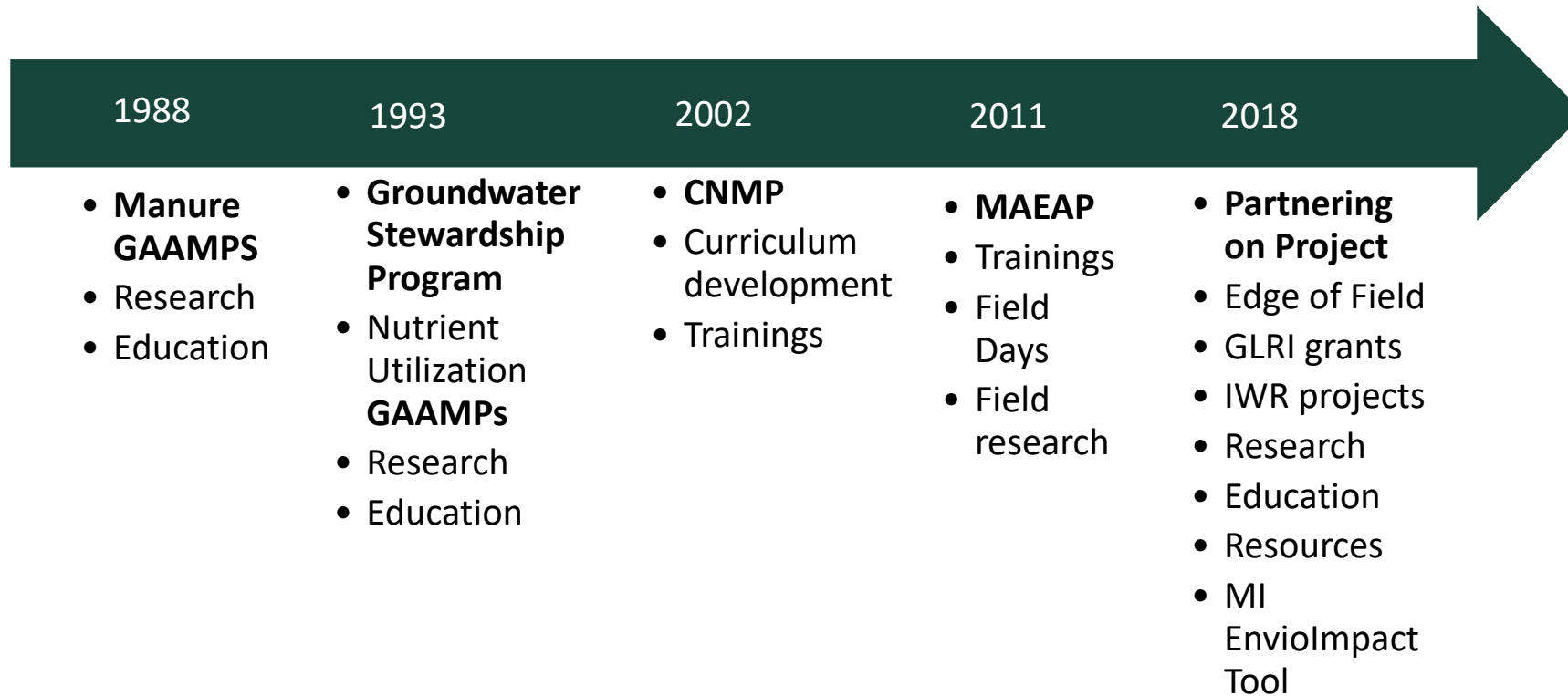
- Animal Agriculture
- Business Management
- Consumer Horticulture
- Ornamental Horticulture
- Fruit
- Field Crops
- Vegetables

Ag and Agribusiness Staff Locations

- Extension educators and Program Instructors networked across the state
 - Tied to campus experts
 - Delivering programs answering local questions/issues
-
- 73 Staff across the state
 - 98 campus faculty with extension appointments



MSU Extension's recent history of protecting water



Generally Accepted Agricultural and Management Practices (GAAMPS)

- Helps farmers to **protect the environment** and reduce risk of nuisance complaints
- Developed with industry, university and multi-governmental agency input
- MSU & MSU Extension provides:
 - Leadership
 - Scientific updates
 - Resources
 - Outreach to farmers

MSU Extension working with MAEAP



Progress through Partnerships

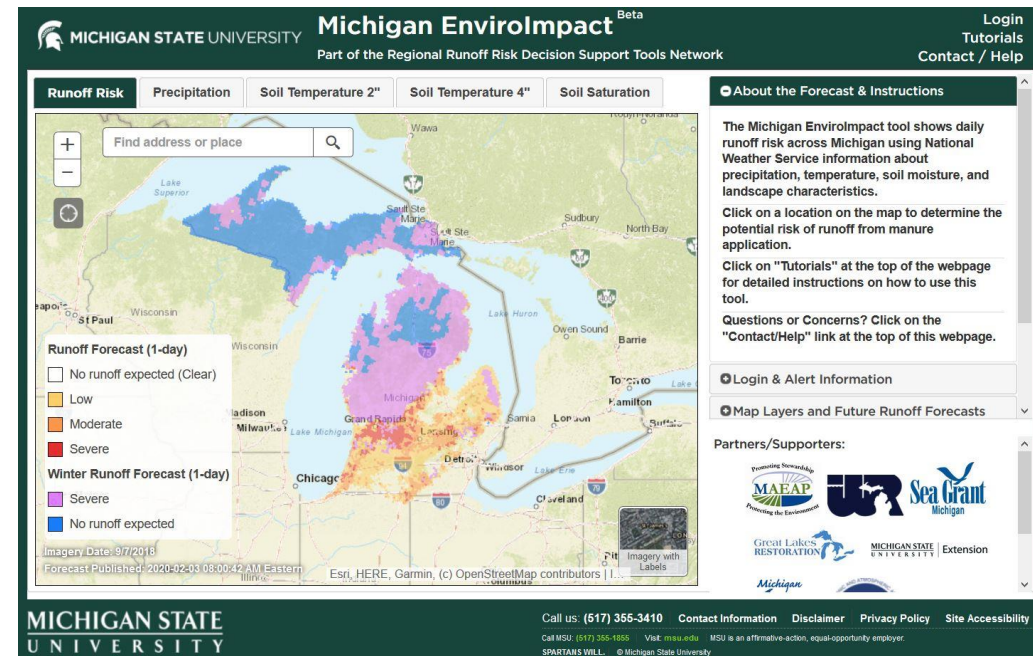
- ***Western Lake Erie Basin***
- Soil Testing to Reduce Agriculture's Nutrient Delivery
- ***Saginaw Bay***
- Accelerating Adoption of Nutrient management through Farmer-led Outreach and Education Field staff involvement



Informing Decisions – Impacting Outcomes

The Michigan EnvirolImpact Tool

- Help farmers plan short-term **manure and fertilizer application** to reduce loss of nutrients from fields
- **Runoff forecast** derived from real-time precipitation and temperature forecasts from the National Weather Service (NWS)
- Shows **daily runoff risk** across Michigan using NWS information about precipitation, soil moisture and temperature, and landscape characteristics
- Prediction models were **tested and validated** using data from edge-of-field monitoring sites across the region



Partnerships/Supporters: Michigan Agriculture Environmental Assurance Program, Michigan State University Institute of Water Research, Michigan Sea Grant, Great Lakes Restoration Initiative, Michigan State University Extension, Michigan Department of Agriculture and Rural Development, Michigan Department of Environment, Great Lakes, and Energy

Partnering on Emerging Issues

MICHIGAN STATE UNIVERSITY

Search...

MSU Extension
PFAS Contamination Response

Submit A Question | Events

MSU Extension and other statewide partners are providing communities important information and responses regarding PFAS -- a class of chemicals found in fire retardants, non-stock cookware and in some manufacturing facilities.

[See Confirmed PFAS Sites Maps on Michigan.gov](#)

[Submit a Question](#)

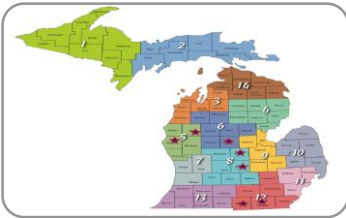
- MSUE Website
- Ask an Expert
- Informative Articles
- Connecting researchers, practitioners and Educators
- Local resource

Uniquely positioned to provide support and leadership within CREP



Improving Soil Health and Nutrient Retention

- Research
- Resource development
- Outreach



Team of Educators across the state

- Direct linkage between campus-based research and field based application
- Expertise in soil, water and nutrients
- Assigned to work in critical areas; WLEB and Saginaw Bay



Partner with key agencies and stakeholders

- Edge of Field Research
- STRAND grant - WLEB
- Farmer to Farmer grant – Saginaw Bay

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To file a program discrimination complaint, a complainant should complete a Form AD-3027, USDA Program Discrimination Complaint Form, which can be obtained online, from any USDA office, by calling (866) 632-9992, or by writing a letter addressed to USDA. The letter must contain the complainant's name, address, telephone number, and a written description of the alleged discriminatory action in sufficient detail to inform the Assistant Secretary for Civil Rights (ASCR) about the nature and date of an alleged civil rights violation. The completed AD-3027 form or letter must be submitted to USDA by:

mail:

U.S. Department of Agriculture
Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW
Washington, D.C. 20250-9410; or

fax:

(833) 256-1665 or (202) 690-7442;

email:

program.intake@usda.gov.

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Para presentar una queja por discriminación en el programa, el reclamante debe completar un formulario AD 3027, Formulario de queja por discriminación del programa del USDA, que se puede obtener en línea, en cualquier oficina del USDA, llamando al (866) 632-9992, o escribiendo una carta dirigida al USDA. La carta debe contener el nombre, la dirección y el número de teléfono del reclamante, y una descripción escrita de la supuesta acción discriminatoria con suficiente detalle para informar al Subsecretario de Derechos Civiles (ASCR, por sus siglas en inglés) sobre la naturaleza y la fecha de la presunta violación de los derechos civiles. La carta o el formulario AD-3027 completado debe enviarse al USDA por medio de:

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