The Ohio Agriculture Conservation Initiative (OACI) is an innovative, collaborative effort of the agricultural, conservation, environmental and research communities to improve water quality by establishing a baseline understanding of current conservation and nutrient management efforts and building farmer participation in a new certification program.
Bring together diverse stakeholders to improve Ohio’s water quality through measurement, education, and certification of Ohio’s farmers in the successful implementation of on-farm conservation and nutrient management practices.

Achieve meaningful improvement of water quality in Ohio, assure the future viability of Ohio agriculture, and build widespread participation of farmers.
**OACI PRIORITIES**

**Certification**
- Establish a certification program that recognizes those farms that demonstrate a commitment to continuous improvement in the implementation of conservation and nutrient management practices
- Identify and provide resources that encourage increased adoption of science-based practices that contribute toward healthier waterways

**Assessment**
- Assess and confidentially take inventory of farm practices to establish a baseline of current conservation and nutrient management practice adoption
ASSESSMENT OVERVIEW

GOAL OF ASSESSMENT

Implement a statistically valid survey of conservation practices on farm fields in a watershed, first to establish a baseline, then periodically survey again to gauge progress.

SURVEY OF FIELDS, NOT FARMERS

Identify fields to assess through statistically valid random sample methodology.

PARTNERSHIP

OACI partnering with county Soil and Water Conservation District offices to conduct the surveys.
STATISTICAL DESIGN

Consulted with The Center for Survey Statistics and Methodology (CSSM) at Iowa State University to develop sampling protocol and selected fields.

- County CAUV field lists obtained from each county within the LM Watershed.
- 375 randomly selected fields to characterize adoption levels.
- Spatial weighting on number of fields selected based on area of county within the LM.
- Selected fields provided to SWCD county office for conducting survey.
- All farmers and field locations remain anonymous; no location or farmer information saved only the field survey data.
ASSESSMENT AREA | LOWER MAUMEE HUC8

<table>
<thead>
<tr>
<th>County</th>
<th>Completed Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defiance</td>
<td>34</td>
</tr>
<tr>
<td>Fulton</td>
<td>51</td>
</tr>
<tr>
<td>Hancock</td>
<td>3</td>
</tr>
<tr>
<td>Henry</td>
<td>272</td>
</tr>
<tr>
<td>Lucas</td>
<td>13</td>
</tr>
<tr>
<td>Putnam</td>
<td>28</td>
</tr>
<tr>
<td>Wood</td>
<td>39</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>450</strong></td>
</tr>
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</table>
Approximately 66% of the fields surveyed were currently enrolled in a cost share conservation program, including both state and federal level programs.
The results indicated that the fields surveyed were being managed by farmers with a wide range of operation sizes. 48% of the farmland assessed was owned by the farmer and 52% was in a lease.
Nearly 50% of the fields were either no tilled or minimally tilled.
As other surveys and studies have concluded, commercial fertilizer is the majority nutrient source (86%) used in this region.
Most farmers were testing their soil adequately, with 83% of the fields surveyed being sampled every 3 years. The vast majority of soil samples (87%) were being done using precision agriculture, via grid or zone methods.
Farmers know their land, as 95% of the fields had been managed by the farmer for 3 years or longer with only 5% being farmed less than 3 years.
For fertilizer recommendations, farmers utilized fertilizer retailers for 66% of fields surveyed and crop consultants on 24% of fields surveyed. Farmers used their own knowledge regarding fertilizer on 9% of fields surveyed.
Approximately 54% of fields surveyed were covered by an approved voluntary nutrient management plan (VNMP) with 44% not covered with a VNMP.
On the fields surveyed, **injection was the most popular method** of nitrogen placement.

The vast majority of farmers surveyed **(70%) side-dressed most of their nitrogen in-season**.
42% of fields surveyed had water management practices installed and 9% used multiple water management practices.
VARIABLE RATE TECHNOLOGY

- 40% of fields surveyed had been using variable-rate P application versus 60% using fixed-rate application
- 13% of fields surveyed had been using variable-rate N application versus 87% using fixed-rate application
- 31% have VRT capabilities that exist on farm versus 69% that are through a supplier
• 91% of fields surveyed were fertilized using appropriate setback distances to critical areas for manure application, according to USDA-NRCS 590 standards

• 20% of fields surveyed were using subsurface manure application

• 77% of fields surveyed incorporated the manure

• 26% of fields surveyed had subsurface manure applied into vegetative cover or an actively growing crop, which helps keep nutrients in the field
## Future Assessment Schedule

<table>
<thead>
<tr>
<th>HUC8</th>
<th>Region</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
</tr>
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<tbody>
<tr>
<td>Lower Maumee</td>
<td>WLEB</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Sandusky</td>
<td>WLEB</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Western Lake Erie Basin (whole)</td>
<td>WLEB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Scioto</td>
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<td></td>
<td>X</td>
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<tr>
<td>Auglaize</td>
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</tr>
<tr>
<td>Upper Great Miami</td>
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<td></td>
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QUESTIONS?