

On-Field Ohio! Project Overview

What Can It Do?

On-Field Ohio! provides long-term, average estimate of field-scale, edge-of-field phosphorus (P) runoff and erosion risk. On-Field Ohio! allows farmers to prioritize time and resources to make effective management decisions.

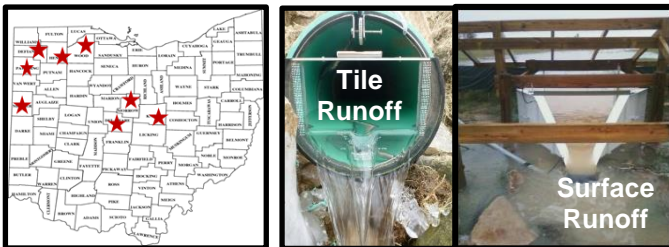
Relating Measured Erosion and Phosphorus Runoff Risk with On-Field Properties and Practices

Based on field properties (e.g. soil test P, slope steepness, soil type) & farmer practices (e.g. crop rotation nutrient application, tillage) provides long-term average estimate of:

- Erosion potential (ton/acre/year)
- Runoff P load (lb P/acre) for:
 - Surface & tile runoff dissolved P
 - Surface & Tile runoff particulate bound P
 - Additional runoff P due to fertilizer/manure/biosolids additions

for each crop year & average for a crop rotation

How Was It Done?



- Runoff monitoring equipment was installed on 29 Ohio fields in 3 watersheds; Western Lake Erie Basin (14) Scioto (7), and Grand Lake St. Mary's (8)
- Over 3 years, >14,000 surface and tile runoff water samples were collected from >2000 runoff events
- Runoff P concentrations and loads were related to (correlated with), detailed crop management, field and soil data

Thanks! to Participating Farmers

How Can it Help?

- On-Field Ohio! gives farmers a tool to manage field-scale erosion and P runoff risk, to maintain agricultural production and protect water quality.
- On-Field Ohio! quantifies how voluntary changes in practices contributes to achieving target P runoff reduction goals.
- On-Field Ohio! is delivered via an on-line interactive tool providing long-term average estimates for erosion and P runoff for each crop year and averaged for the rotation.