project

What? 60,269 linear feet of grassed surface ditches, 6,400 linear feet of two-stage ditches, 50 tile blowout repairs, 15 controlled drainage structures, 9 blind inlets, 2 phosphorus filter-woodchip bioreactor systems, and supported the development of 'A Field Guide to Identifying Critical Resource Concerns and Best Management Practices for Implementation' and other education materials.

Why? Install, monitor and share knowledge about agricultural best management practices to reduce sediment and nutrient loss.

Where? Putnam County, OH in the Auglaize, Blanchard and Ottawa River watersheds.

Impact? This project contributed to the 40% phosphorus reduction goal and provided research and outreach to support the efficacy of these BMPs.

More Info: An adaptive data-driven BMP handbook is available @: agbmps.osu.edu or your local SWCD.

partners

Putnam Soil & Water

The Ohio State University

USDA Agricultural Research Service

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Working together to protect our lands & waters *for the future*

Great Lakes RESTORATION

A research, outreach, and implementation project funded by the Great Lakes Restoration Initiative

Sediment & Nutrient Reduction

BMPs

Best Management Practices

In Tile Drained Farmland

This project included implementation & monitoring of the following practices:

FOCUS:

In-Field & Edge-of-Field Filters

Solution: Blind Inlets & Phosphorus Filter - Woodchip Bioreactor Systems

In-field and edge-of-field treatment practices can be installed to remove nutrients, especially dissolved reactive phosphorus and nitrates, before they discharge into ditches and streams. Blind inlets occur at low spots in the field. Bioreactors and phosphorus filters are located at a tile outlet.

FOCUS:

Surface Water Drainage

Solution: Surface Ditches planted to grass

Bare soil is vulnerable to erosion and should be vegetated whenever possible to prevent soil loss and sediment pollution. Planting grass to surface field ditches will remove nutrients by creating a biological filter.

FOCUS:

Drainage Ditches

Solution: Two-stage Ditches

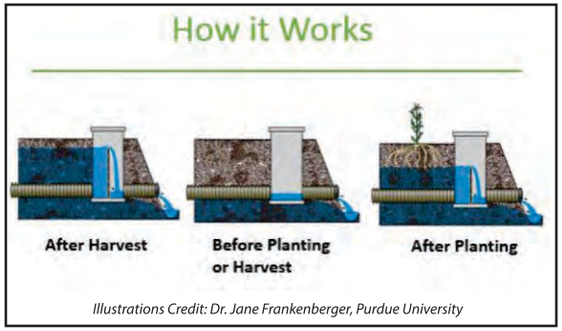
Drainage ditches serve as outlets for the subsurface tile system and function to quickly remove water from a flat landscape. Two-stage ditches improve on traditional ditches by creating "benches" to filter tile water while still providing drainage capacity.

FOCUS:

Subsurface Tile Drainage

Solution: Drainage Control Structures & Tile Blowout Repairs

Drainage tile management and repair is key in the balance of productive farms and a healthy watershed. Drainage control structures allow the farmer to manage water leaving the tile and store water for future use. Repairs to tile blowouts reduce the ability of soil to enter the tile system.



Illustrations Credit: Dr. Jane Frankenberger, Purdue University

Concerned about keeping soil and nutrients in your fields?

Visit agbmps.osu.edu and contact your local SWCD to learn what you can do about it on your farm.