

The Dirt on Clean Water:

How Farmers are Helping Protect the
Paw Paw River Watershed

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Van Buren Conservation District

Paw Paw, MI



VAN BUREN
CONSERVATION DISTRICT

Tell us what
you've done with
all the grass!



Van Buren Conservation District

Promotes the Conservation of Natural Resources through Partnerships

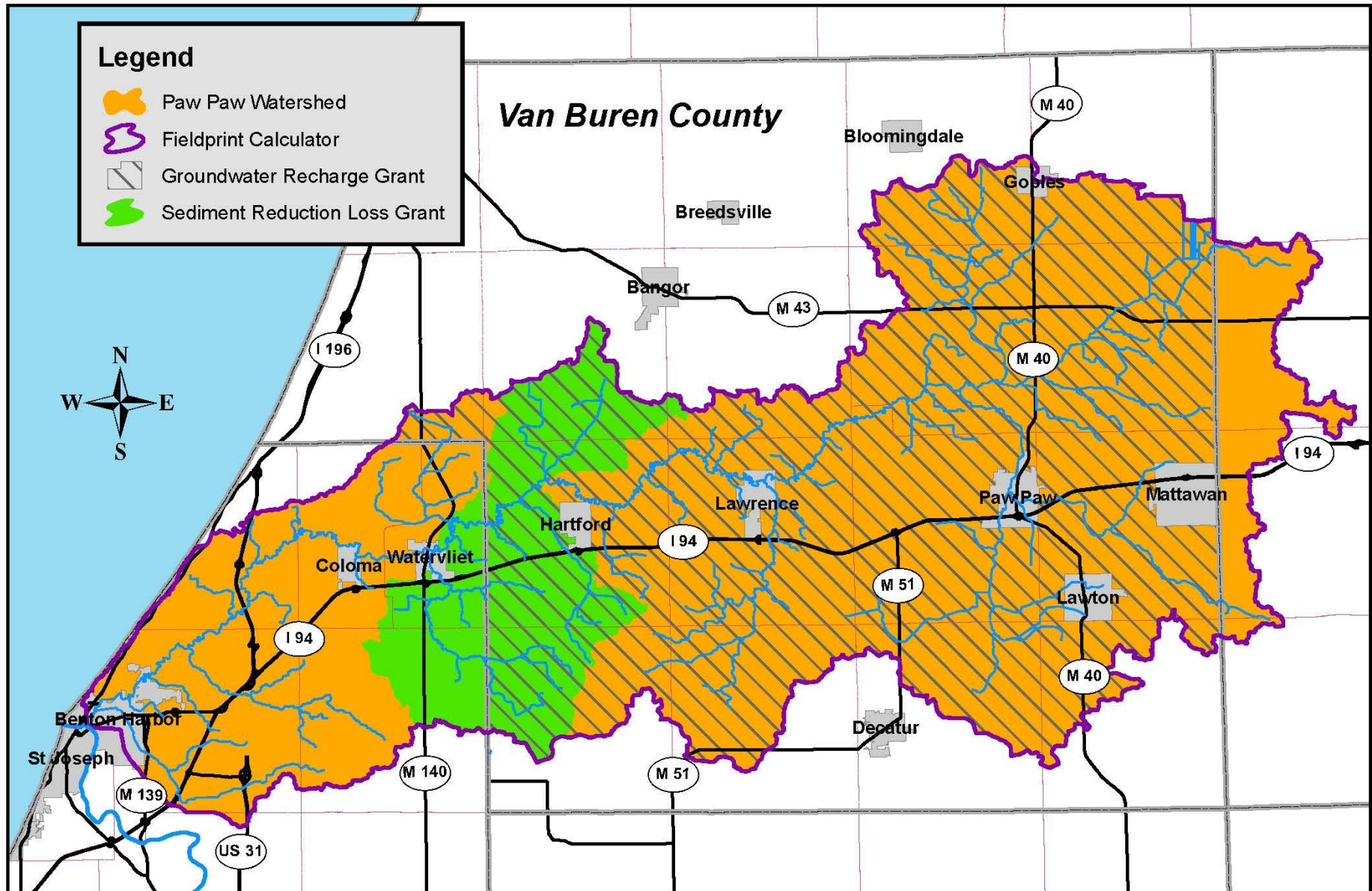
- Tree Seedling Sale
- Native Perennial Sale
- River Rescue
- Tire Collection
- Farming for the Future
- Household Hazardous Waste Collection
- Michigan Agricultural Environmental Assurance Program (MAEAP)



We also offer Technical Assistance, Public Education and Demonstrations

<http://vanburencd.org/>

Paw Paw River Watershed Incentive Opportunities



For more information, contact:
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(269) 657-4030 ext. 129

Why the Paw Paw River Watershed?

High Priority for Protection

- More stable than other rivers in Southern MI
- Large floodplain forest along the river

Wetland loss in the PPRW

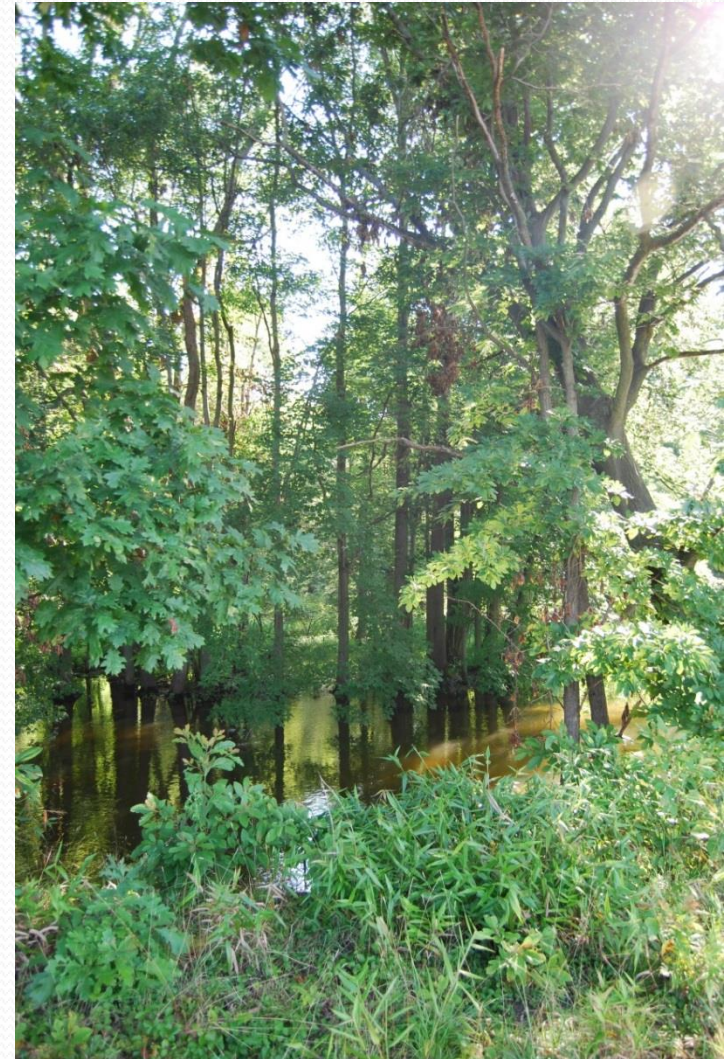
- 43% of the wetlands in the PPRW have been drained or filled
- Increased stream bank erosion and loss of filtration capacities

Pollution problems have been identified

- Sediment, excess nutrients, pesticides, temp, pathogens
- PPRW annually delivers over 10,000 tons of sediment to Lake Michigan

Industry and Recreation

- Coca-Cola, Canneries & Welch's
- Fishing and Tourism



Why are we focusing on farmers?

Land use can cause exposed soil

- Gravel pits, development, row crops, vineyards, orchards
- How we manage the land impacts the quality of the water

47% of the watershed is used for agriculture

- Approx. 25% of Van Buren County is used for row crops

Incentives exist to change farm practices

- Better practices can make money and reduce pollution!



How farmers are helping the PPRW

#1 Filter Strips



#2 Cover Crops



#3 No-Till





Fieldprint Calculator Pilot Project

- Run 50+ Corn Producers
- Assess general farming practices and overall “fieldprint” for grain production
- Use Calculator as a decision-making and educational tool to ultimately increase agricultural sustainability and overall watershed health
- Allow producers to anonymously compare their operation (inputs and yields) to state and watershed averages

The screenshot shows the Fieldprint Calculator web application. At the top, there is a navigation bar with links: Home, About Us, Contact Us, Members, Privacy Policy, and Sitemap. The main header area features the text "Fieldprint Calculator" and a "Start" button. Below the header, there is a section titled "Start" with a sub-header "On this page, you will locate your field and enter information about its soil and your crop rotation, management system, transportation, and drying practices. This information will be used to calculate your Fieldprint for a variety of indicators on the following tabs." The main content area is divided into two columns. The left column contains a form with various input fields and dropdown menus. The right column displays a map of a field with a yellow outline, and a sidebar with a list of tabs: Start, Land Use, Soil Conservation, Soil Carbon, Irrigation Water Use, Energy Use, Greenhouse Gas Emissions, Summary, and Economic Analysis. The bottom of the page features a footer with the text "© 2011 Field to Market All Rights Reserved."

Fieldprint Calculator

Start

To go back to previous tabs, please use the tabs rather than your browser's Back button.

Start

On this page, you will locate your field and enter information about its soil and your crop rotation, management system, transportation, and drying practices. This information will be used to calculate your Fieldprint for a variety of indicators on the following tabs.

Units: U.S. Customary

Location

Soil

Crop Rotation

Management

2011 Corn

Tillage System: Conventional

Management System: corn grain; F.C., st. pt.

Nov 1 -- Chisel, st. pt.
Apr 21 -- disk, tandem light finishing
Apr 28 -- Cultivator, field 8-12 in sweeps
May 1 -- planter, double disk open
Oct 20 -- Harvest, killing crop 50pot standing stubble

Crop Residue Removed: Yes No

Cover Crop: None

N Credit Taken from Cover Crop: 0 lb/ac

Double Crop: None

Double Crop: 0

Click and drag to move. Double Click to zoom in.

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<http://www.fieldtomarket.org/fieldprint-calculator/>

Groundwater Recharge Grant

- Replenish Aquifers
- Improve water quality and hydrology
- Restore habitat for native plants and animals
- Goal of 100 million gallons by 2014

46 million gallons recharged in 2013

135 million gallons total recharged

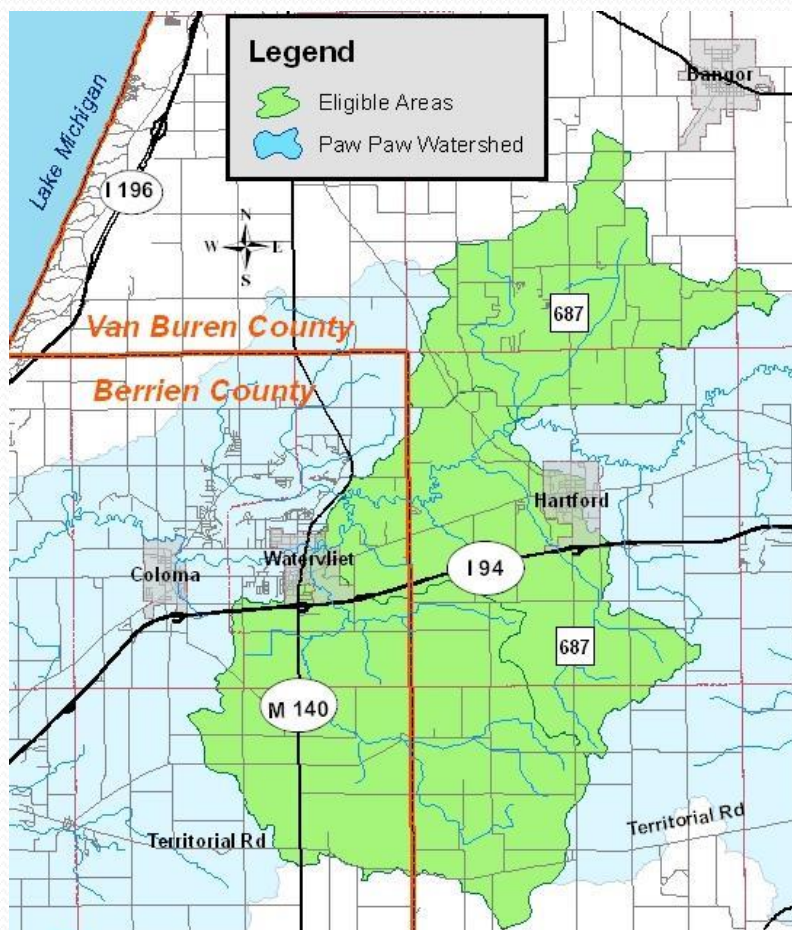
Total Acres 747

The Nature
Conservancy



Sediment Reduction Grant

Bidding for Best Management Practices



Sediment delivered to the PPR is about 10,000 tons/yr

- Habitat loss for fish and invertebrates
- Pollution is carried with sediment
- Increased algae blooms in lakes
- Costs millions of dollars to dredge

Growers can earn up to \$20K

- Filter Strips
- No-Till
- Reduced-Till
- Cover Crops

Sediment Reduction Grant = 819 Acres

By The Numbers

We reach our goals because of the willingness of growers



Fieldprint Calculator = 58 growers
Ground Water Recharge Grant = 747 Acres
Sediment Reduction Grant = 819 Acres
Total Acres = 1,566 Acres

No-Till = 744 Acres
Reduced Till = 405 Acres
Cover Crops = 800.5 Acres
Filter Strips = 22 Acres
Grass Waterways = 3.5 Acres

The Nature
Conservancy



New Projects

Van Buren County Drain Commissioners Pilot Project

- Change in Drain Assessment Methodology
- Reduction in drain assessments for landowners with BMPs

Village of Paw Paw, 319 Grant Project

- Water Quality Survey
- Incentive Money for BMPs
- Funding for Wetland Restoration



Promoting Cover Crops

Great Benefits for both Growers and the Watershed



Challenges for growers with corn and soybean rotation



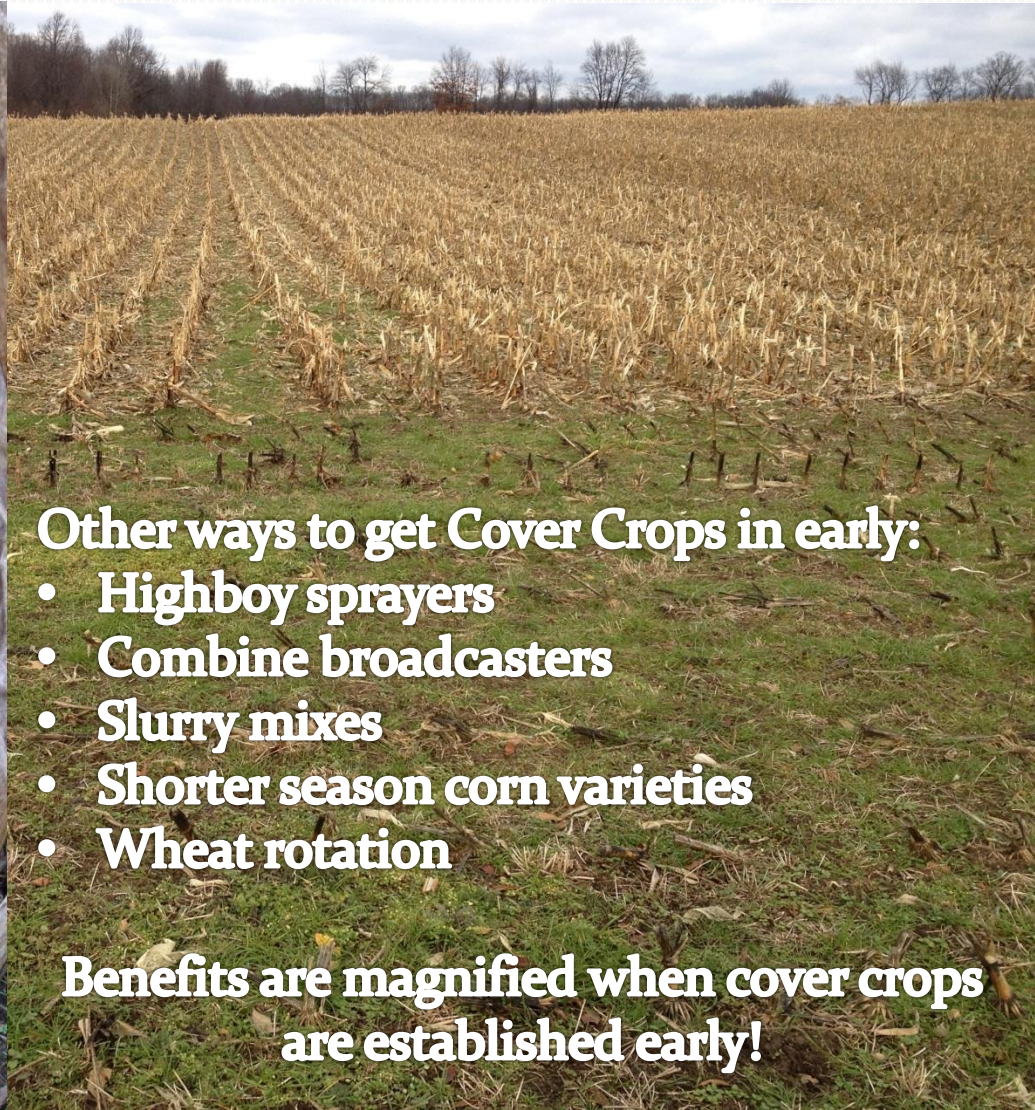
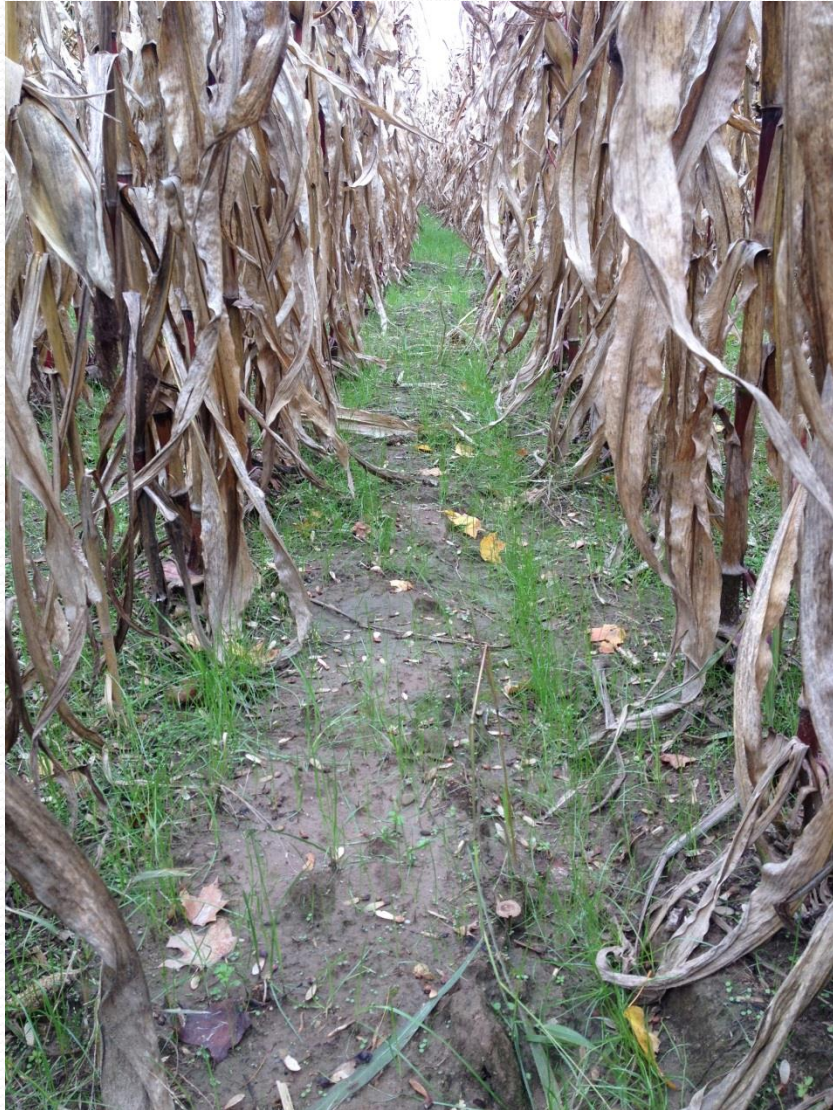
- Getting all the grounds covered
- Wet fall condition
- Equipment
- Additional management in spring

Aerial Seeding Cover Crop Co-op

- 1600A were flown on Aug. 28, 2013
- Annual Ryegrass @ \$32.50/A
- Jamie Scott – Seed Dealer
- Aerial co. – Nick's Flying Service



Aerial Seeding Cover Crop Co-op



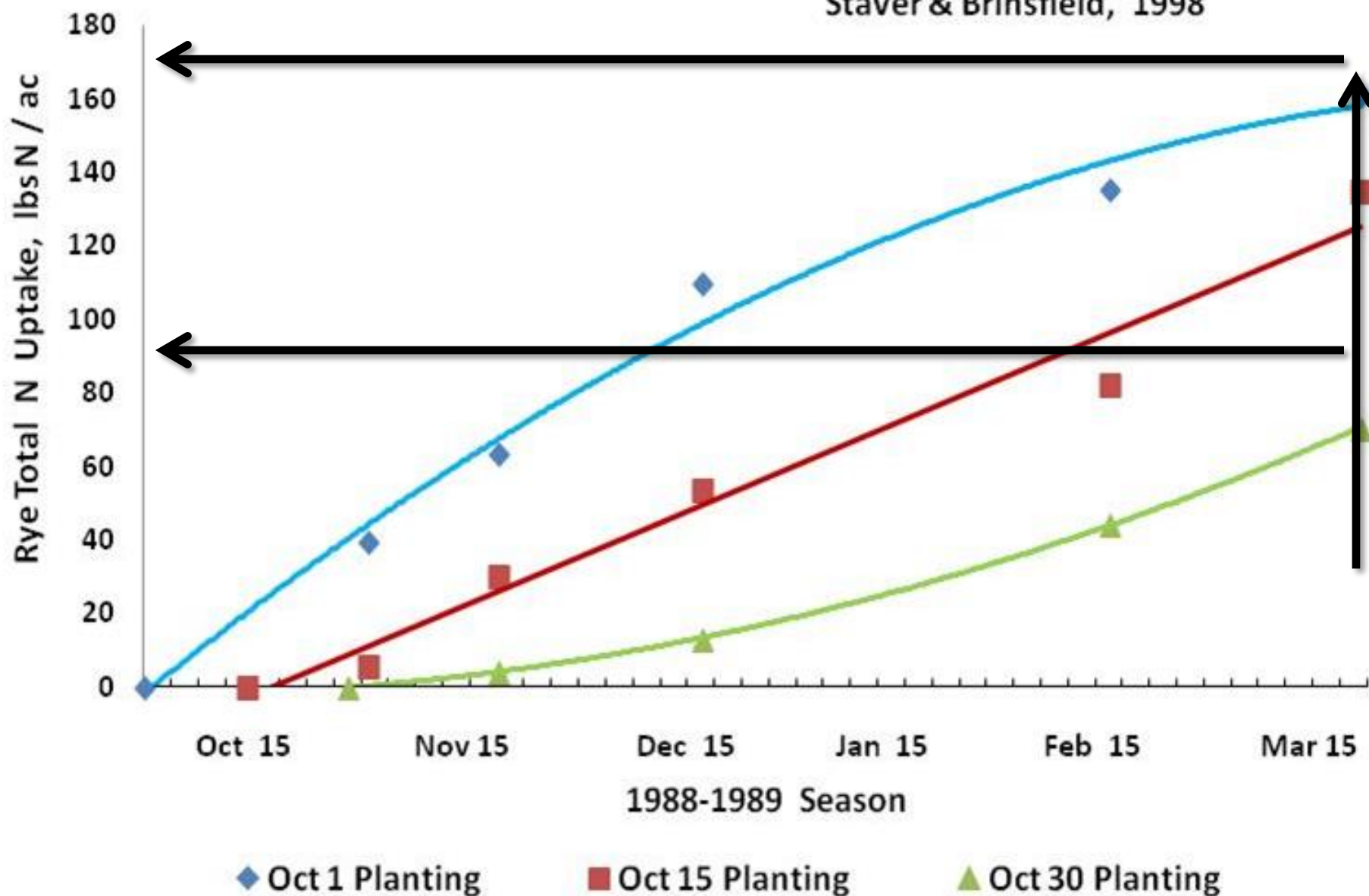
Other ways to get Cover Crops in early:

- Highboy sprayers
- Combine broadcasters
- Slurry mixes
- Shorter season corn varieties
- Wheat rotation

Benefits are magnified when cover crops are established early!

Rye Total N Uptake for Three Planting Dates

Staver & Brinsfield, 1998



Field Tours: Promoting with Partners



Educational Events



Farming for the Future



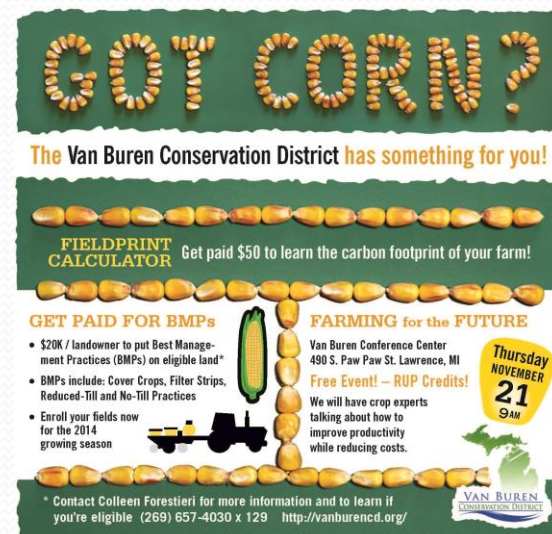
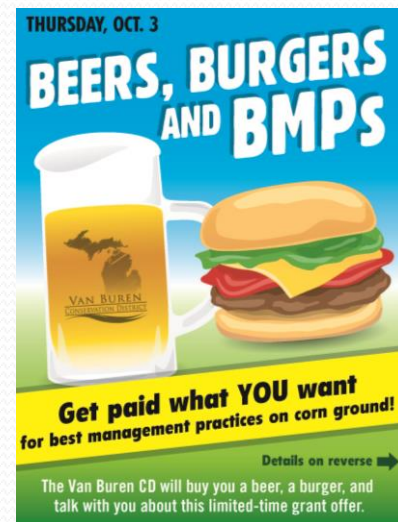
Spring Field Day



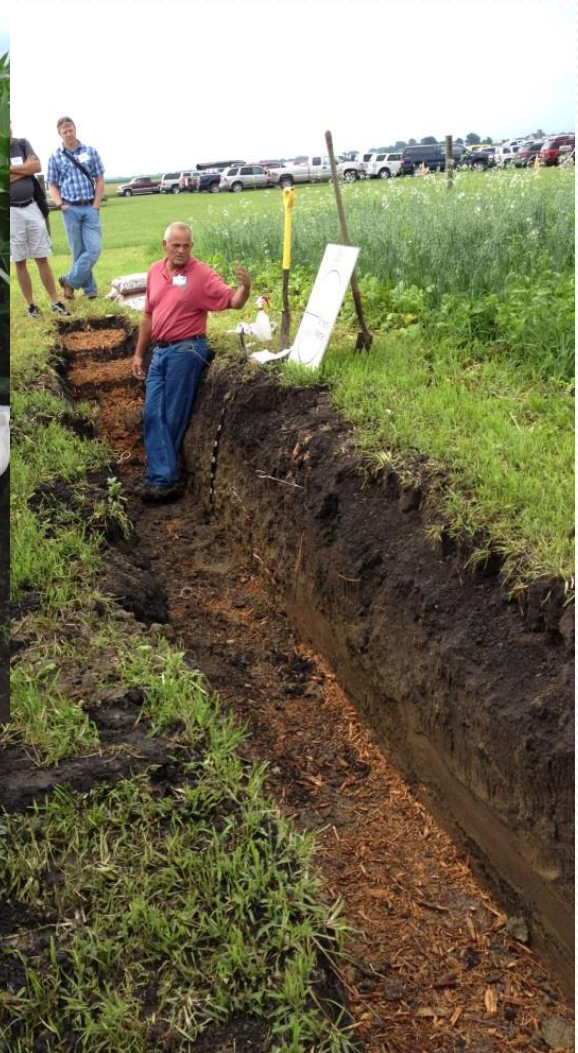
Fall Field Day –Root Pits
Fall 2014



Winter Conference – March 19
“Cover Your Assets”



We attend conferences and field tours too!



We Rent Out Equipment

- John Deere 1750 No-Till Planter (>2 thousand acres)
- Brillion SS10 Seeder
- Truax Utility 86 No-Till Drill



Thanks **Coca-Cola**

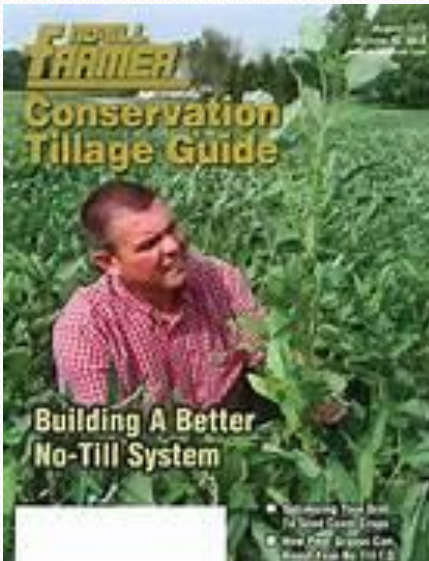
Press



Find Your Footprint

January 4, 2014

By: [Ben Potter](#), Farm Journal, Technology Editor



Speaker Touts the Benefits of Cover Crops

November 29, 2013

By: [Bev Berens](#), Farmers Exchange & No-Till Magazine

Thank You!

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The Nature Conservancy



Delta Institute

