

Benton County Secondary Roads Department



2015 Annual Report



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BENTON COUNTY SECONDARY ROADS

Integrated Roadside Vegetation Management

Benton County utilizes Integrated Roadside Vegetation Management as a tool to control noxious weeds, prevent erosion, improve water quality and preserve pollinator habitat. This is done through the planting of native vegetation and management techniques such as spot spraying, prescribed fire and prescribed mowing.

IRVM activities began in the county following the adoption of an initial management plan in 2005. The program is guided by an advisory committee and roadside manager. The advisory committee meets four times a year and aids in establishing the goals of the program. The roadside manager works as a part of the secondary roads department and is charged with implementing all aspects of IRVM.

Benton County is fortunate to have a fully developed IRVM program. This allows the secondary roads department to apply annually for native prairie seed which comes at no cost. Additionally, with the hiring of a Roadside Manager, Benton County is also eligible for grants that cover all or part of the cost of equipment used in the establishment of native vegetation.



"Committed to preserving our rich ecological past. Striving to conserve our natural resources, restore ecosystem services and protect our environment."



MISSION STATEMENT

The mission of the Benton County Integrated Roadside Vegetation Management program is to create public awareness and provide ecologically diverse, environmentally integrated and aesthetically pleasing safe roadsides. Per Iowa Code 314.22

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Right-of-Way Projects

Overview

Each year the Secondary Roads Department completes ditch clean-outs, right-of-way (ROW) re-grading projects and other work that disturb the vegetation in the ROW. The Benton County IRVM program is tasked with planting native vegetation in Benton County ROW where these projects have occurred.

Planting native vegetation restores the functionality and benefits that the ROW provides the county secondary road system. The following sections provide more information on some of the work we do.



Ditch Clean-Outs

When a section of right-of-way (ROW) loses some of its function by filling up with soil or other debris from neighboring land, Benton County is tasked with restoring more safe ROW conditions. This is done by removing the soil or debris causing the problem.

Removing soil and debris from right-of-way often leaves the soil bare and prone to weed infestations. The IRVM program plants native vegetation in these areas as a long term solution to this problem. Ditch clean-outs are often in areas that are not easily accessible with a tractor and seed drill. Thus, they are often seeded with the county's hydroseeder. This machine shoots a mixture of green colored wood mulch, water and prairie seed that stabilizes and plants the site in a single application.

In 2015, the Benton County IRVM program reconstructed prairie in **32 ditch clean-outs** that encompassed **17.06 total acres of area**.

2015 Total Acres Planted: 43.16

2015 Total Acres Drilled: 24.1

2015 Total Acres Hydroseeded: 17.06

Major Reconstruction Areas to Keep an Eye On:

- ◆ 33rd Avenue (South of Atkins)
- ◆ Oak Grove Project (61st St Ln, 33rd Ave Dr, 59th Street Trail)



Oak Grove Project

In 2015, our largest prairie reconstruction project occurred along 61st St Ln, 33rd Ave Dr and 59th St Tr.

In total, we reconstructed **26.047 acres** of prairie vegetation. The site is also unique because it contains an Iowa listed threatened plant. The plant is called Oval Ladies Tresses (*Spiranthes ovalis*). We are taking special care to maintain this population so that it can be preserved and appreciated for years to come.

2015 Summary

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Right-of-Way Management

Tree Clearing

The Benton County IRVM program is responsible for removing tree and brush problems within the county right-of-way (ROW). This is done to make the ROW more safe for roadway users. Trees and brush can cause line of site issues, become obstructions that people can hit if they go in the ditch or fall on the road in bad storms.



Prescribed Fire

Prescribed fire is a management tool that helps to stimulate prairie growth and deter noxious and invasive species. The IRVM program burns section of right-of-way that have remnant communities of native plants or been planted with native vegetation.

We were able to conduct 3 prescribed fires in 2015. Two of the burns were done in the spring of 2015 near the Cedar River bridge south of Urbana. One was conducted on a remnant prairie and the other on a reconstructed prairie. The third burn took place in September of 2015 and was done to clear dead vegetation off of an area that was being prepared for a prairie reconstruction. This area is located just to the north of Urbana.



WEED CONTROL

Roadside Spraying

The Benton County IRVM program also conducts all of the roadside spraying throughout the county. We are tasked with eradicating all noxious and invasive weeds that compromise the integrity of our roadside plantings. Noxious weeds are declared by the state but the county can amend this list to be more restrictive within its borders.

Our program sprays a combination of 2,4 D and Milestone to control problematic plants. Both the Roadside Manager and Roadside Technician are certified Commercial Pesticide Applicators. Following IRVM principles, our staff members spot spray weed infestations which saves the county money and reduces environmental impacts.

We had a very successful spraying season in 2015. Both spray trucks were able to run and our crew covered every mile of the county. Our most problematic species include Canada Thistle, Musk Thistle, Yellow Sweet Clover, White Sweet Clover and Wild Parsnip. However, we have several other species that are encroaching on our borders. Japanese Knotweed and Leafy Spurge are two of these species. Now that we know where the majority of these plants are, it will make it much easier to control them in the future.

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New Plant Discoveries

Benton County is home to a diversity of native prairie and woodland plants. Some remain relatively common but others can only be found in small and isolated populations. Our right-of-way provides conditions that support the survival of many rare plants. Some are found in very dry sand prairies and others on moist woodland slopes.

The Benton County IRVM program identifies rare plants within the right-of-way and manages these areas in a way that allows these plants to persist.

Sand Milkweed (*Asclepias amplexicaulis*)



Michigan Lily (*Lilium michiganense*)

Shooting Star (*Dodecatheon meadia*)



Marsh Betony (*Pedicularis lanceolata*)

Several rare plant species were found in sections of Benton County's right-of-way in 2015. These plants include Kittentails (*Wulfenia bullii*) and Marsh Betony (*Pedicularis lanceolata*). Kittentails is a state listed threatened species and Marsh Betony is an unlisted rare plant. Kittentails has already been discovered in Benton County but in a separate location than ours.

Other notable species that were found this year in our right-of-way include Michigan Lily (*Lilium michiganense*), Sand Milkweed (*Asclepias amplexicaulis*) and Midland Shooting Star (*Dodecatheon meadia*).

Kittentails (*Wulfenia bullii*)



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2015 Living Roadway Trust Fund Grants

The Living Roadway Trust Fund (LRTF) was established by the Iowa Legislature in 1988. This was done to support Integrated Roadside Vegetation Management (IRVM) programs in their efforts to establish native vegetation in Iowa road-sides.

Appropriations for the LRTF are allocated from the road use tax fund, the Resource Enhancement and Protection (REAP) fund and other sources. This money is then used annually to fund competitive grants for IRVM programs.

Benton County was very fortunate to receive funding for 3 different grants this year. Though our program is still very young, equipment purchases that were received with the help of LRTF funds will make our program more efficient and productive in the coming years.

2015 Living Roadway Trust Fund Grants:

1. IRVM Building Renovation

- Metal Roof Restoration
- Piping in Water
- Spray Foam Insulation
- Concrete Floor
- Herbicide Storage and Containment
- Seed Storage
- Safety Upgrades

1. Echo Leaf Blowers

2. Truax Seed Slinger (Broadcast Seeder)

Total Project Cost: \$67,156.98

LRTF Fund Received: \$16,220.78

Final Cost to Benton County: \$50,936.2



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Goals and Projects for 2016

2016 LRTF Grant Priorities:

1. Agterra Spray Tracking System
2. UTV Pull Behind Mower
3. Herbicide Storage Cabinet
4. Fuel Storage Cabinet
5. Prescribed Fire Equipment:
 - Polaris Ranger Drip Torch Holders
 - Prescribed Fire Warning Signs
 - Drip Torch
 - Polaris Ranger Tool Holder
 - Weed Eater / Brush Cutter

2016 Benton County IRVM Objectives:

1. Update IRVM Management Plan
2. Write and Secure Funding for 2016 LRTF Grants
3. Conduct Management on Atkins Reconstruction
4. Finish Planting and Managing Oak Grove Project ROW
5. Conduct Prescribed Fires on Benton County Remnants
6. Develop Management Strategy for Oval Ladies Tresses
7. Develop Partnership with the Iowa DNR Prairie Center
8. Conduct IRVM Presentations and Workshops
9. Finish IRVM Website Page
10. Conduct Native Vegetation Seminar



BENTON COUNTY SECONDARY ROADS

Native Vegetation Seminar



The Benton County IRVM program held its first Native Vegetation Seminar in March. The goal of this program is to present general information about the uses and management of native vegetation as well as interesting projects involving these plants that are taking place in Benton County.

A list of this years speakers can be found below:

Ben Bonar , Roadside Manager	Prairie Establishment and Management
Mark Pingnot , LRTF Program Assistant	Timber Management
Ben Bonar , Roadside Manager	Urban Stormwater Management
Randy Scheel , Old Creamery Nature Trail	Old Creamery Nature Trail Projects
Karen Phelps , Naturalist	Monarchs and Milkweeds
Aaron Askelson , Naturalist	



Public Outreach

One of the goals set by the Benton County Integrated Roadside Vegetation Management Advisory Committee is to provide educational programming focusing on native vegetation. To achieve this goal, the Roadside Manager gives presentations regarding IRVM to local community groups. Four presentations were conducted in 2015. Additionally, the committee will hold a Native Vegetation Seminar in early 2016. This event is designed to present area land-owners with land management techniques they can use to improve their property and programs that can help them establish or improve native vegetation on their property.

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2015 Summary

The 2015 Benton County IRVM Advisory Committee was composed of 6 private members and 4 public members. The members include Ann Jorgensen, James Huber, Randy Scheel, Matt Purdy, Ben Bonar, Joan Lindberg, Calvin Wolter, Carol Zander, Kathy Chamberlain and Harold Cassens.

- The committee met 4 times in 2015.



2015 Seeding Data

- 50 acres of prairie seed was received from the TPC
- 86.32% of this seed was used in calendar year 2015
- ~ 43.16 acres of native vegetation were reconstructed in the ROW
- 24.1 acres were planted with the seed drill (55.8%)
- 17.06 acres were planted with the hydroseeder (39.5%)
- 2.0 acres were planted with a broadcast seeder (4.6%)
- 365.26 acres of native vegetation have been planted since 2005
- There are ~5184 acres of ROW in Benton County
- ~7% of Benton County ROW has been planted to prairie

Program Accomplishments

- Secured \$16,220.78 worth of grant funding for new equipment and building renovations
- Obtained 50 acres of diverse prairie seed for the ROW
- Conducted 4 public presentations on IRVM
- Identified several rare native plants in the ROW (Swamp Betony, Kittentails, Short Green Milkweed).
- Submitted a new IRVM Management Plan to the IDOT.
- Controlled noxious and invasive weeds by spot spraying infestations in all 5184 of ROW
- Collaborated with Spinutech to create an IRVM and Weed Commission page on the new county website
- Preparing an agreement with the Iowa DNR to produce native plant seed in Benton County

