

Dan Perkins: Certified Crop Advisor

Watershed and Conservation Program Specialist

www.iroquoiswatershed.org

www.jaspercountyswcd.org

JCSWCD “Cover Crop Guy” You tube Channel

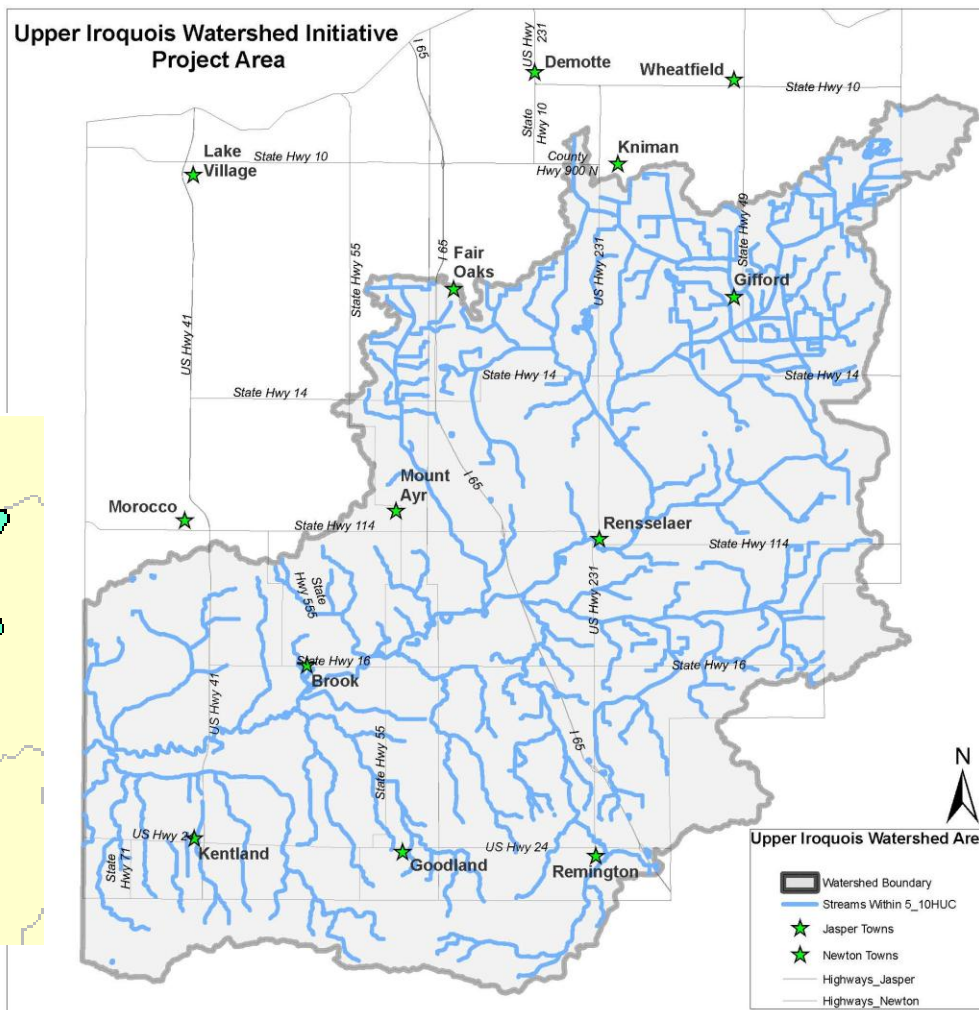
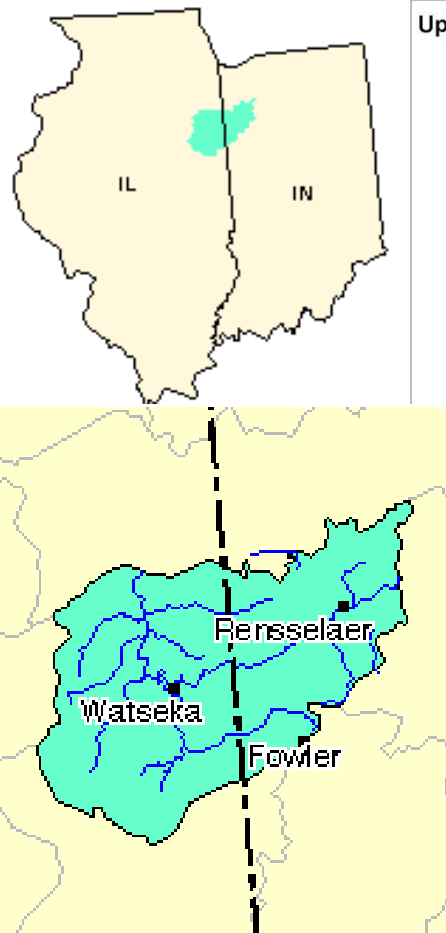
Cover Crops

How can you help blanket the watershed?

Practical Challenges and Solutions for Watershed Managers







UPPER IROQUOIS WATERSHED INITIATIVE

CONNECTING PEOPLE FOR WATERSHED IMPROVEMENT



- 651 sq. miles
- 438,332 acres
- 84% Ag land
- 6 % Forested land
- 10 % Other/Urban Land
- 208 miles of streams

Potential relative reductions in nitrate leaching in Corn Belt for specific corn/soybean mgt. changes

<u>PRACTICE</u>	<u>CHANGE</u>	<u>REDUCTION POTENTIAL</u>
N rate on corn	150 reduced to 125 lb/ac	
timing	no fall N-fertilizer applications	
cropping	switch to perennials combine cash crop with cover crops	
buffer strips	1-5% of area	
tillage	plow to long-term, continuous no-till	
wetlands	1-5% of area	

Cover Crops

- How to get message out?
 - Map it.
 - Gather them. Go to them.
 - Let them sell it.
 - Repeat.

Map it.

- Where are cover crops currently being used?
 - SWCD Boards and Staff, Extension staff, NRCS staff, FSA staff, DNR staff
 - Find the current practicing farmers . . .
 - Fall Transect being done across state right now.
 - Local Ag business:
 - List them: CERES, Co-Alliance, Wilson Fertilizers, Vision Ag, Independent CCAs, etc.
 - » Are they favorable to cc? Why or why not?
 - » What questions do they have? Concerns?
 - » Which staff are supportive?
 - When do they have their customer/sales appreciation days?
 - Go to them and be social.
- List your locally available experts . . .
 - Private, Non-profit, governmental . . .



Do cover crops work
in Iroquois
Watershed? (2010)

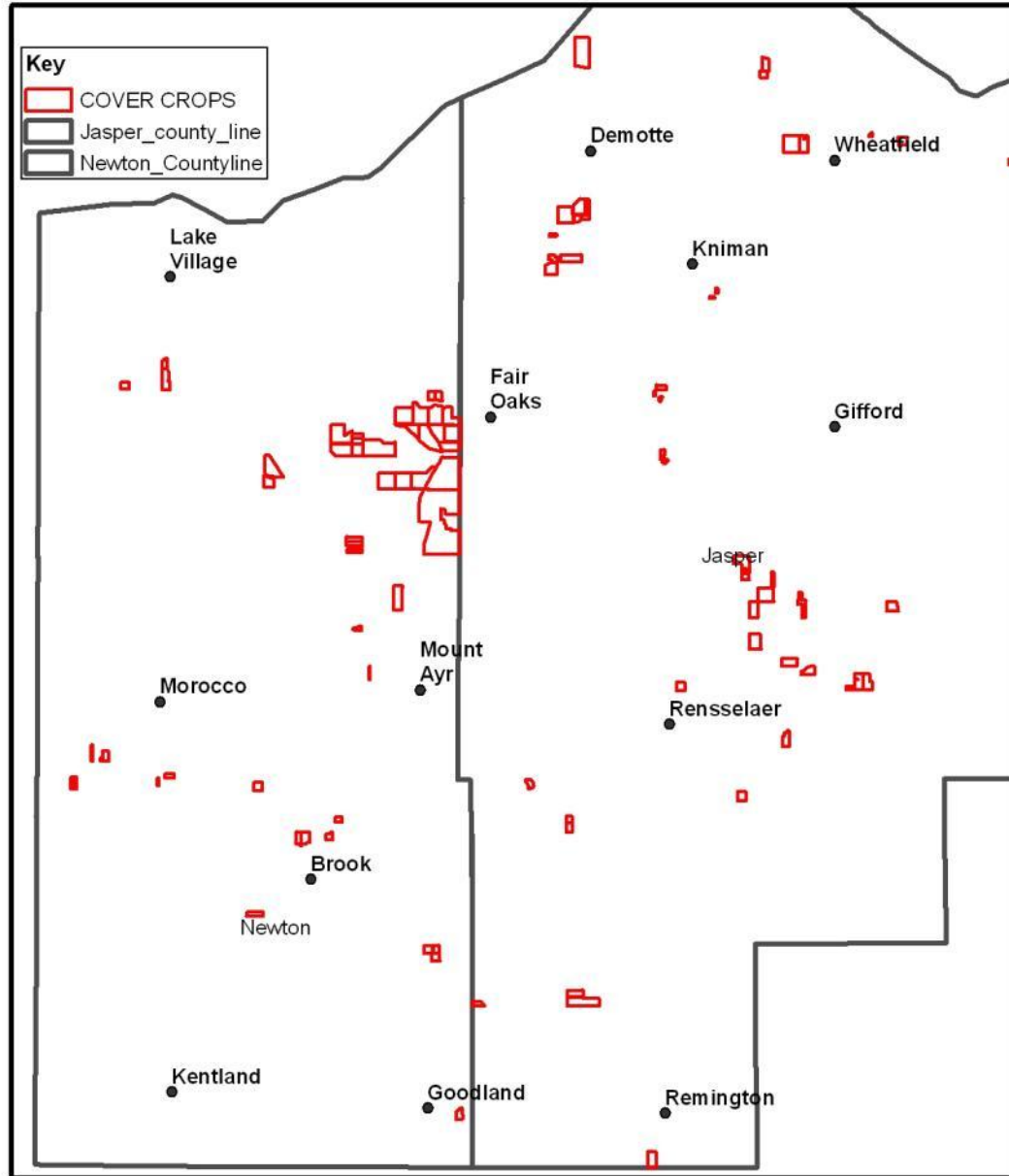
→ YES

What cover crops in
what rotations?
How much benefit?
Economic benefit?



Cover Crop Fields Fall 2013

www.jaspercountyswcd.org



* Mapped fields are known cc fields, others may exist.

by Dan Perkins SWCD Not for legal use



UPPER IROQUOIS
WATERSHED INITIATIVE
CONNECTING PEOPLE → WATERSHED IMPROVEMENT

What cover crops?

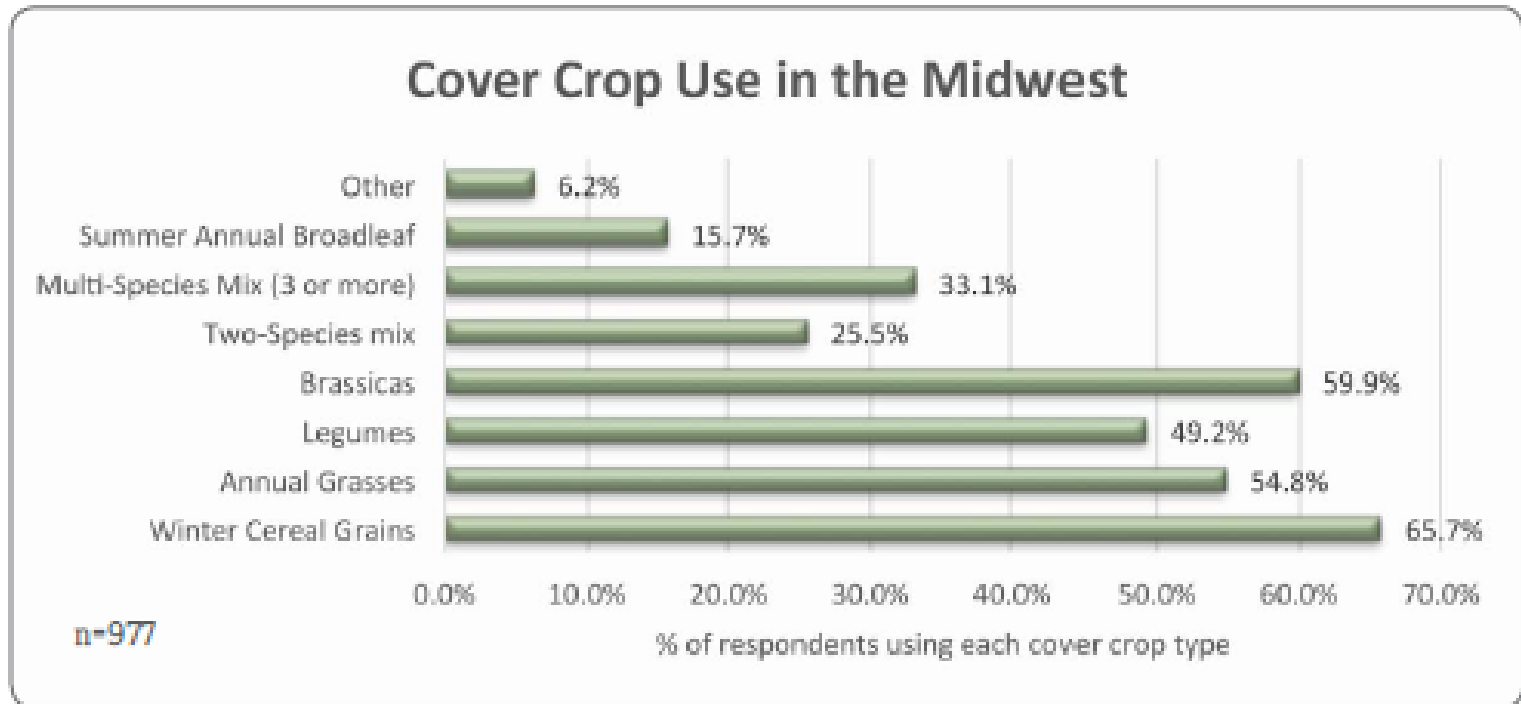


Figure 8. In the Midwestern United States, winter cereals, brassicas and annual grasses are all quite popular as cover crops.

Gather them. Go to them.

Gather . . .

- Tillage Roundtable Groups
- Your own Workshops
- Demonstration Plots

Go to . . .

- Cover Crop and Soil Digs
- Planter Ride Along
- Combine Ride Along
- PARP/Customer Meetings
- “Coffee Shop Locations”

Tillage Roundtable

GOALS

1. To improve our conservation tillage systems and farm profitability
2. To encourage the adoption of conservation till methods in the area

METHODS

1. Meet 3-4 times a year
2. Network Exchange
3. Planter Clinic
4. Farm Visits

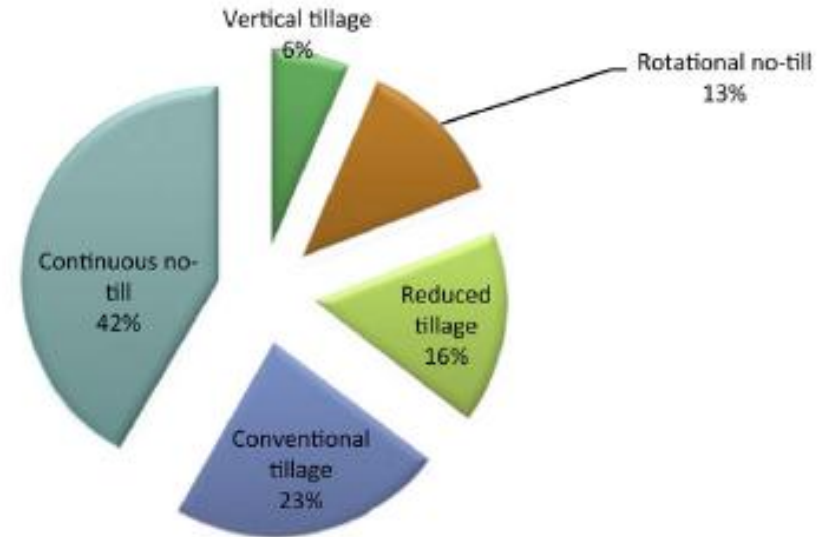
SIZE 10-15 Participating Farmers

- Farmers in the group practice
Conventional Till to 100% No-Till

Established Ja



Tillage systems used by cover crop users



n=1,740

Figure 5. Respondents who plant cover crops employ a wide variety of tillage strategies.

Current list of topics:

- ◆ Drainage and No-Till Methods
- ◆ Deep Ripping or Worms
- ◆ Cover Crops: Herbicides & Set-backs
- ◆ Precision Technologies and Role in No-Till setup
- ◆ Do's and Don'ts of No-Till
- ◆ Jasper County No-Till Stories
- ◆ Role of Compaction in No-Till Systems
- ◆ Farm Shop Meetings to Investigate Planter set ups
- ◆ Precision Technologies and Role in No-Till setup

Typical Agenda Example

Wednesday, November 30, 2011

Devon's Family Restaurant, Rensselaer In

1. 7:15-7:30 am arrive and have breakfast
2. Dan Perkins: Cover Crop Fall 2011 Update and Soil Pits Report
3. Local Farmer will talk about his farm operation, successes, failures, and questions
4. Question and Answer Time
5. Discussion: Barriers to conservation tillage use in this area? How do we change these?
6. Next meeting date, farmer to present and topic covered

East of Kentland, Indiana

Loam Soil

Conventional Till after Seed Corn

April 22, 2014



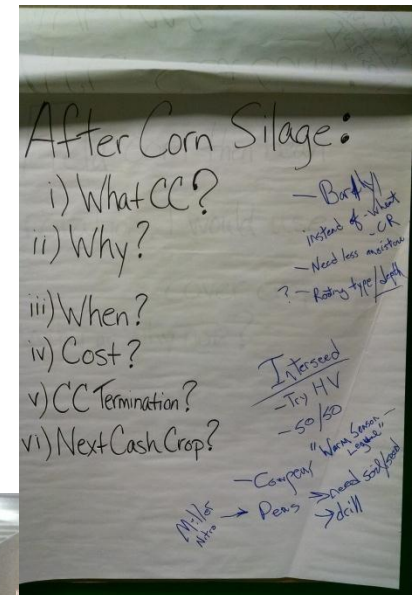
71-73 soybean yield with no cover crop
75 + soybean yield after Cereal Rye
No marestail = one less post spray
Beans where greener two weeks longer
No white mold in beans after cereal rye

#1 - Check strips like this one can provide insight to the benefits of cover crops in just one season.

#2 - Differences in soil, 10 ft. apart, after just one season.

Your own Workshops

- Feed em
 - Breakfast, Lunch, 2 hours max seems to work best . . .
 - Spread throughout watershed = social networks- “more than 20 miles your the expert”
 - Farmer Panel or bring a farmer.
- Relevant: Bring in experts, partnerships . . .
- Listen – “Clickers”, pre-post surveys, etc.
- Don’t power point to death. Let them mingle.
 - Have equipment, stuff to look at.
 - Flip Chart activity
- Timing
 - August
 - Early December
 - Not Feb
 - March
 - Not April, May, June



Demonstration Plots



- Barry Fisher NRCS has sample layout
- Seed companies will provide seed and layouts
 - Just ask.
- Try just spinning soil along the edge of
- Drilled after wheat
 - Early August for d
 - Early September t



Large and Small Demo Plots



Start small

Fall 2011 Cover Cr

Are cover crops wo

Come to a field and h
farmers and experts n
See the cover crop in the fiel
See rooting depth and soil pr
Hear from the farmer person.

Time	Date
10 am	Tuesday, Nov 15
1:30 pm	Tuesday, Nov 15
9:30 am	Wed, Nov 16
11:00am	Wed, Nov 16
1:30pm	Wed, Nov 16

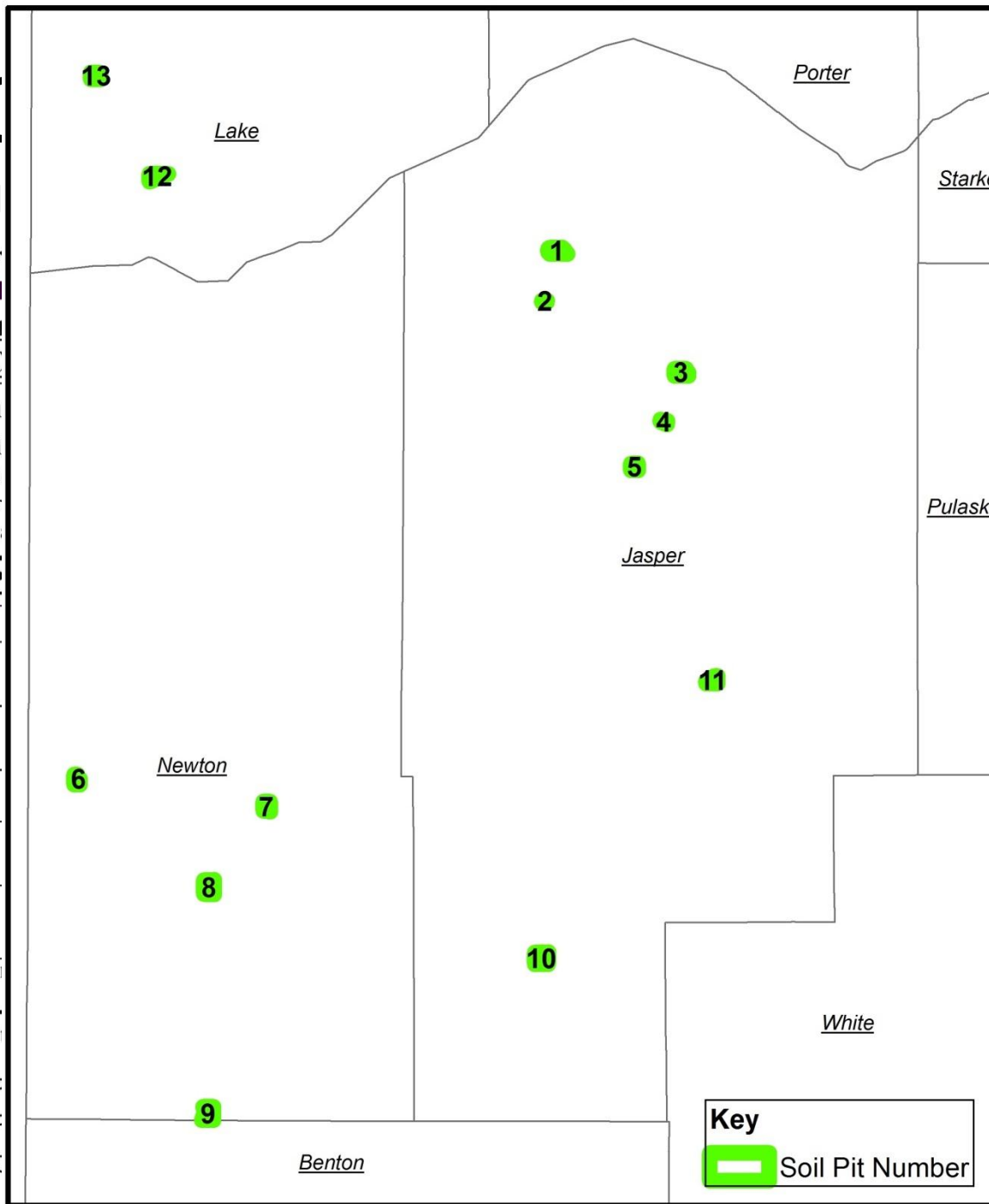
Soil pit at each site weather permitting. 11

Contact us for exact loca

Dan Perkins: Jasper Co

Rose Morgan: Newt

Bryan Overstreet: J



Key
 Soil Pit Number

Pit Locations

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Cover Crop and Soil Digs

- Target
 1. First time cover crop users.
 2. Long term users
- Timing
 - Fall Pits: First to second week in November
 - Spring Pits: End of March to early April
 - Sponsors are listed to make use of their customer contacts.
 - 3 Pits in morning and 3 in afternoon works well.
- Farmer or Ag Company/Sponsor to dig pit.
 - 5 minutes before field visit is best.
 - Off end row- although compaction shows nicely.
 - Good established cover crop portion of field
- Dig pit no deeper than 4 feet.
- 1 hour at pit on nice day,
- 15 minutes if cold, have shop to go to visit.
 - Have large pictures of key concepts
 - Flip Charts for discussion



After (

- i) What
- ii) Why?
- iii) When?
- iv) Cost?
- v) CC Terminal
- vi) Next Cas



Orn:

Interseed
V3-V5
Cozy?

microbes

O/R ahead of Seed Corn

Seed Corn > Rotation
Beans

Easy

Ahead of BEANS

7. Cannot
No-till Corn

2
3. R
4. Exch
5. Loc
- Ho
- G
G. I

⊗ V-10
V-2

Planter/Combine Ride Along

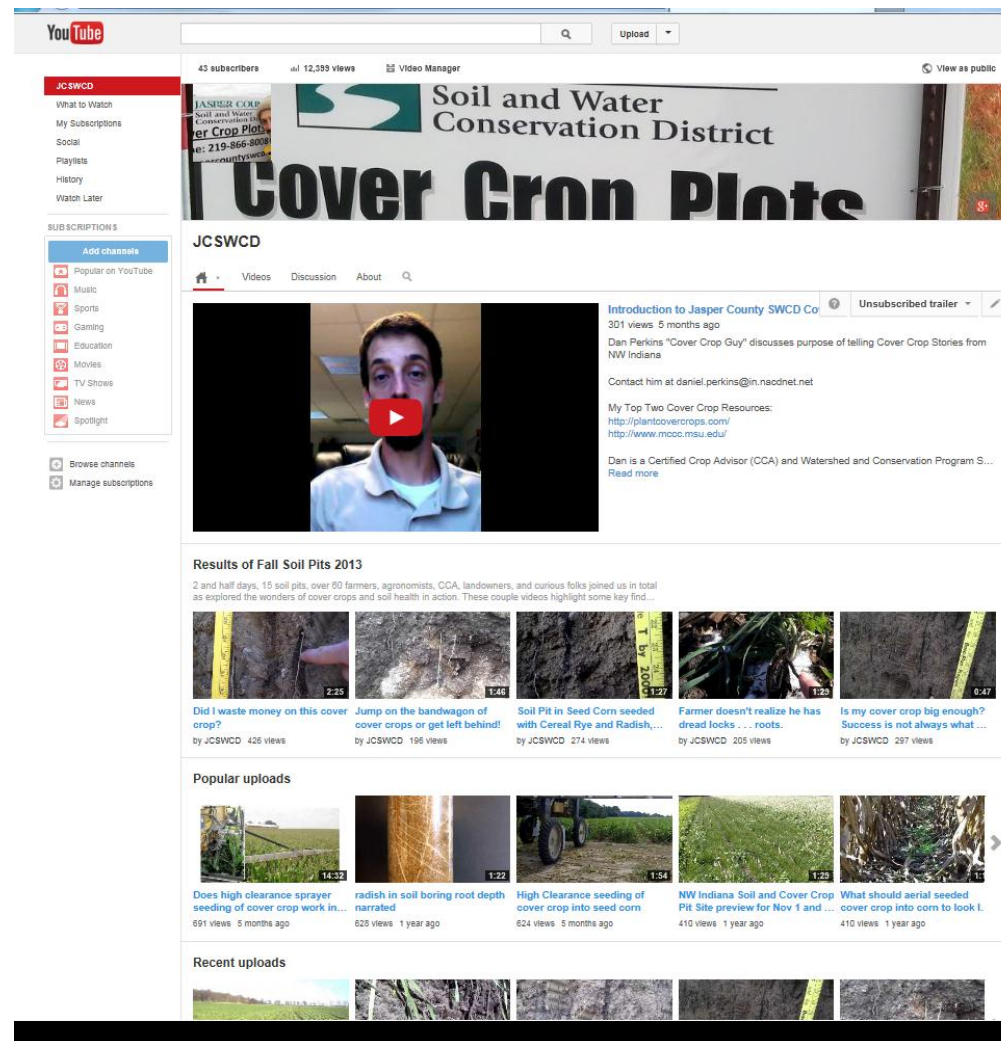
- Literally drive the country side at planting and harvest time.
 - Start with known farmers to get a feel for it.
 - Get referral if you can, make it convenient.
- Bring a small cooler with drinks and some snacks.
- Learn and ride and have a conversation.

PARP/Customer Meetings

- Extensions holds multiple meetings
 - Winter PARP meetings, etc.
 - Get invited, even if it is a 5 minute slot.
- Ag Businesses hold multiple meetings
 - Customer Appreciations
 - New Product Meetings
 - Often they are looking for a “non-sales” topic.
 - Field Days combine efforts

Social Media- use it, but make sure it is used.

- Cover Crop
– You Tube Channel
- 83+ Videos
- 27,000 views since Feb 2012
- 8,529 views in 2013
- 8,851 views since Jan 2014
- 400-900 views per video



The image shows a screenshot of the YouTube channel page for JCSWCD (Jasper County Soil and Water Conservation District). The channel has 43 subscribers and 12,395 views. The page features a banner for "Cover Crop Plots" and a video player showing a man speaking. Below the video, there are several video thumbnails with titles and view counts:

- Introduction to Jasper County SWCD Co...** (301 views, 5 months ago)
- Results of Fall Soil Pits 2013** (2 and half days, 15 soil pits, over 80 farmers, agronomists, CCA, landowners, and curious folks joined us in total as explored the wonders of cover crops and soil health in action. These couple videos highlight some key find.)
- Did I waste money on this cover crop?** (426 views)
- Jump on the bandwagon of cover crops or get left behind!** (196 views)
- Soil Pit in Seed Corn seeded with Cereal Rye and Radish...** (274 views)
- Farmer doesn't realize he has dread looks... roots.** (205 views)
- Is my cover crop big enough? Success is not always what...** (297 views)
- Popular uploads:**
 - Does high clearance sprayer seeding of cover crop work in...** (691 views, 6 months ago)
 - radish in soil boring root depth narrated** (626 views, 1 year ago)
 - High Clearance seeding of cover crop into seed corn** (624 views, 5 months ago)
 - NW Indiana Soil and Cover Crop Pit Site preview for Nov 1 and ...** (410 views, 1 year ago)
 - What should aerial seeded cover crop into corn to look l...** (410 views, 1 year ago)
- Recent uploads:** (A row of five video thumbnails is shown.)

Reports

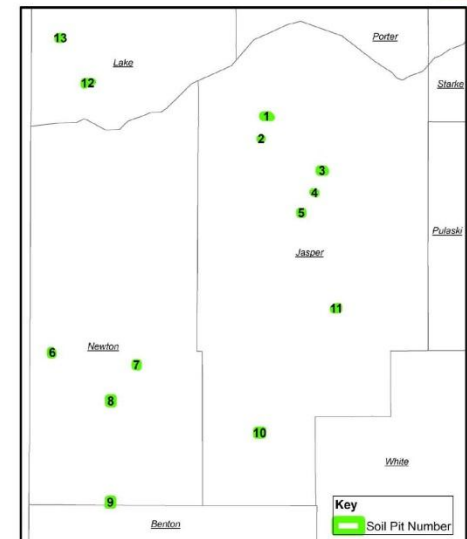
- Annual Cover Crop Stories
- This becomes your summary record.
- Key stories to tell.
- Pdf available for download.

NORTHWEST INDIANA COVER CROP REPORT WINTER 2014

Stories from the pits, crimping cereal rye, and cover crop impact on nitrogen and water quality.



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Soil pit tour conducted on November 14, 2013

Challenges.

Desired Cover Crop Benefits - Cover Crop Users

Cover Crop Challenges - Cover Crop Users

Barriers to Cover Crop Adoption (Cover Crop Non-Users)

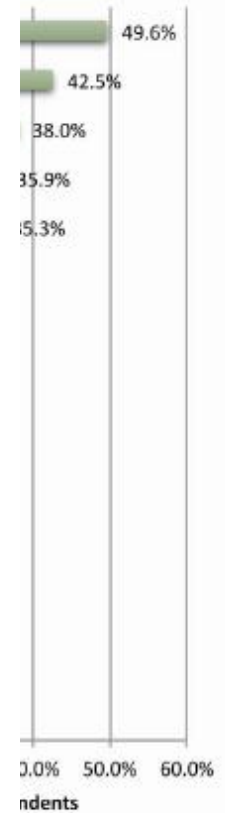
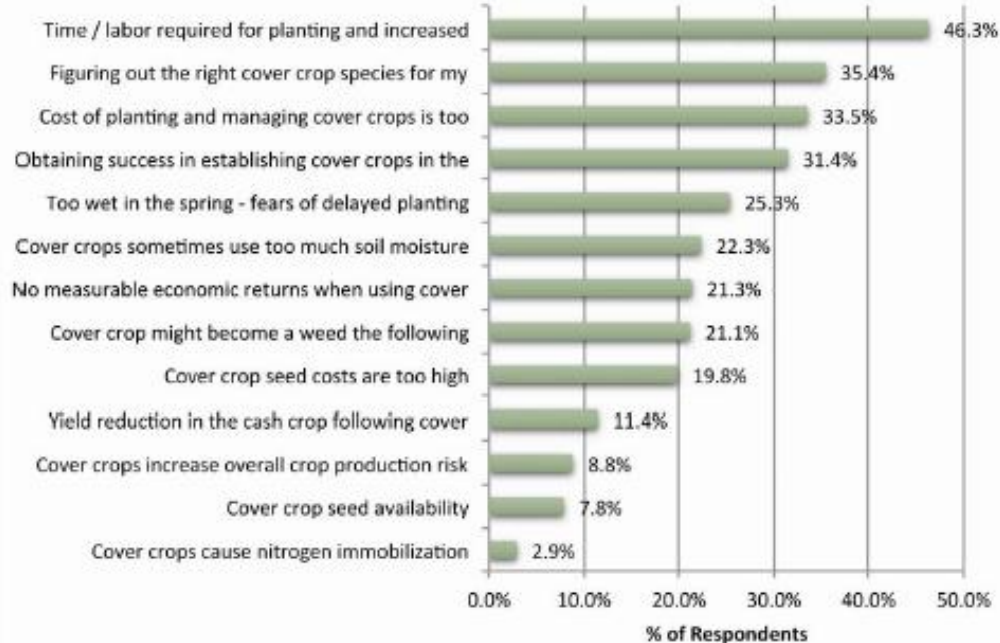


Figure 2!

Figure 28. Time/labor was the top barrier for non-users of cover crops, followed by concerns over making good choices of cover crop species.

time and labor are

Cover crop non-users rate the effectiveness of various cover crop educational opportunities

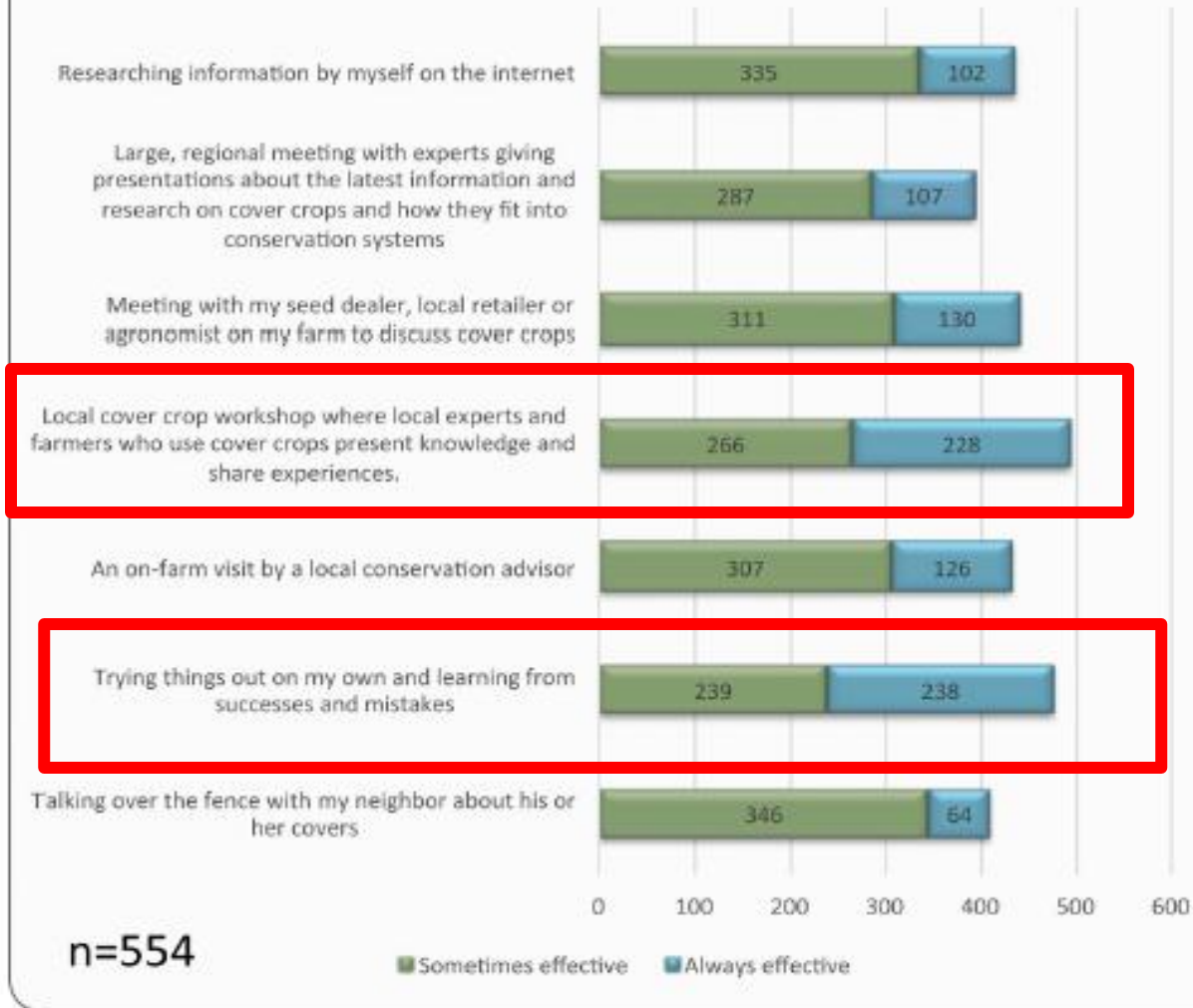


Figure 32. Like cover crop users, non-users rate personal experimentation highest when assessing learning opportunities.

Let them sell it.

Nov 2, 2010: North of Demotte, IN.

The value of digging a soil pit was made evident, after seeing 24 inches of root depth into and through compacted layers by late fall.

Farmer quote: "I ripped and used cover crop and had spots I just ripped. The cover crop and ripping had no ponding, where as the just ripped parts of the field did have ponding. I was sold on cover crops!"



Resources

Midwest Cover Crops Council

Illinois Indiana Iowa Michigan Minnesota North Dakota Ohio Wisconsin Ontario

WELCOME TO THE MIDWEST COVER CROPS COUNCIL WEBSITE

The goal of the *Midwest Cover Crops Council* (MCCC) is to facilitate widespread adoption of cover crops throughout the Midwest, to improve ecological, economic, and social sustainability.

NEWS

New article from Michigan [Cereal Rye: Manure and Livestock's New Best Friend](#)

Presentations, posters, and photos from the [2009 MCCC meeting](#) will be posted as they become available

Want to share the MCCC web site with others at your next meeting? Visit the new [Press Materials](#) section!

WHO WE ARE?

The MCCC is a diverse group from academia, production agriculture, non-governmental organizations, commodity interests, private sector, and representatives from federal and state agencies collaborating to address soil, water, air, and agricultural quality concerns in the Great Lakes and Mississippi river basins (including Indiana, Michigan, Ohio, Manitoba, Ontario, Illinois, Wisconsin, Minnesota, Iowa, and North Dakota).

WHY COVER CROPS?

Cover crops are an effective tool to reduce soil erosion and increase nutrient recycling on farmlands, thereby also decreasing the

Home

About Us
History
Mission and vision
Supporters
MCCC meetings
Cover Crop Resources
Cover crop species
Cover crops selector
Survey...coming soon
Extension material
Publications

- www.mccc.msu.edu
- www.plantcovercrops.com
- www.covercrops.msu.edu
- [JCSWCD "Cover Crop Guy" You tube Channel](#)

Questions

“How societies fare in the long run depends on how they treat their soils and water. Simple. Concise. You are your water and dirt.”

Dan Perkins: Watershed and Conservation
Program Specialist

www.jaspercountyswcd.org

www.iroquoiswatershed.org

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