# CONSERVATION CONNECTIONS



Adams County Soil & Water Conservation District Newsletter

Winter 2018

Happy New Year to your and your family! For 2018 I hope for you much joy and happiness. Do you have a New Year's resolution to learn more about healthy soil and keeping our waters clean? Adams Co. SWCD can help you. We are working on designing more education opportunities for you.

Plan on attending **Ag Extravaganza**. This is the combined annual meeting for Adams County agencies of Pork Producers, Farm Bureau, and Soil & Water Conservation District. You are invited for the meal, business meeting, elections, and awards. The speaker is Indiana State Representative Matt Lehman. Thank you to the Pork Producers for being the lead this year. The evening's activities will begin at 6:30 P.M. on **Thursday, February 8**, 2018 at Knights of Columbus in Decatur. Norm is cooking; so the groceries will be good. This meal is furnished by SWCD, Pork Producers, and Farm Bureau. Be our guest with no charge to you. Please RSVP to either our office at 260-724-4124, ext. 3 or phone 260-692-6117 preferably by February 6th.

Another day to block on your calendar is **March 14th**. An informative field day is being organized to be held at **D&J Tonner Farm** right on the Adams-Wells County line. There will be an opportunity to tour cover crop fields, Topics offered will be nutrient timing, method of application, cover crops, PARP, and 4Rs. Looking forward to seeing you there!

The **Northern Indiana Grazing Conference** is **February 2-3**. I have heard its one of the top grazing conferences in this part of Indiana. LaGrange Co. SWCD is the organizer. See inside this newsletter for details.

The **Fort Wayne Farm Show** is **January 16-18**. It is held at the Allen County War Memorial Coliseum. Several educational seminars are provided by Northeastern Indiana Soil & Water Conservation Districts and Purdue Cooperative Extension Service.

In Conservation,

Sandy Voglewede





### **Misty Gehres**

Misty began working with the Adams Co.

SWCD team in late November. Her position is Assistant Conservationist. Misty has hit the ground running. She has already been in the schools leading our youth with conservation lessons. Misty is coordinating the youth education. She will also be working on the fiscal responsibilities of the District. Mrs. Gehres plans to aid in the adult education opportunities also. Misty comes to us with strong event planning skills.

Misty and her husband Todd care for livestock on their farm. They have ran a farm for 28 years. She has served with the Farm Bureau board for 24 years and has lead different committees. Her two sons have been active in 4-H for several years. Misty is not new to the world of ag. She is here to help you grow in your conservation efforts. We are happy to have Misty on board with SWCD!



### YOUR INVITED...

### 2018 Adams County Ag Extravaganza

Combined annual meetings of Adams County Farm Bureau, Adams County Pork Producers and Adams County SWCD



Speaker: State Representative Matt Lehman

Thursday February 8, 2018

6:30 PM @ Knights of Columbus, Decatur

RSVP to either 724-4124 x3 or 692-6117







### New Study Emphasizes Value of Farm Conservation Practices in Western Lake Erie Basin

Indiana Farmers lend a hand in reducing nutrients reaching Lake Erie

Indianapolis, Indiana, October 12, 2017 – Indiana farmers in the six counties of the Western Lake Erie basin are having positive impacts on Lake Erie, according to a new report from the U.S. Department of Agriculture (USDA). This report by USDA's Conservation Effects Assessment Project (CEAP) shows these practices reduce phosphorus losses from fields by an estimated 61 percent and reduce the amount of phosphorus being delivered to Lake Erie by an estimated 41 percent.

"Indiana farmers have always been conservation leaders," said Jane Hardisty, Indiana State Conservationist with USDA's Natural Resources Conservation Service (NRCS). "When farmers' voluntary conservation efforts are all added together in one watershed, they really can make a difference. NRCS and our partners are proud to serve these farmers through conservation planning and financial support to provide farmers a step-by-step plan to continue to achieve positive results."

NRCS helps farmers make conservation improvements on working lands. Reports like this one help the agency better understand the effectiveness of conservation practices and adapt conservation approaches, Hardisty said. Though there is still work to be done, this report shows that private land owners are responding to regional needs and putting conservation plans into action to improve water quality across the basin.

This is the second of a two-part report on the Western Lake Erie basin, which has historically suffered from high levels of nutrients and sediment associated with human activities in the region. The first report focused on edge-of-field losses; this report focuses on sediment and nutrients entering streams, rivers and Lake Erie.

The voluntary conservation practices in use by farmers in the entire basin, which also includes portions of Ohio and Michigan, in 2012:

Reduced sediment losses from fields by an estimated 80 percent and reduce the amount of sediment being delivered to Lake Erie by an estimated 40 percent.

Reduced phosphorus and nitrogen lost from cultivated cropland fields by 61 and 26 percent, respectively;

Reduced phosphorus and nitrogen deposition into the streams and rivers of the lake's basin by 72 and 37 percent, respectively; and

Reduced phosphorus and nitrogen entering the lake by 41 and 17 percent, respectively.

Water quality is directly impacted by nutrients and sediment. By reducing the amount of nitrogen and phosphorus entering basin waterways, farmers are doing their part to reduce the chances of harmful algal blooms that may lead to hypoxia, or oxygen depletion, throughout the lake. Algal blooms can make the lake unsuitable as a source of drinking water and recreation as well as habitat for fish and wildlife.

CEAP uses a sampling and modeling technique to yield these results, quantifying the impacts of conservation practices adopted across the region. These analyses provide scientifically-based direction for future conservation planning efforts targeting specific management goals.

Farmers use a variety of conservation practices to reduce losses of nutrients and sediment. The practices evaluated by CEAP include strategies like nutrient management, cover crops and structural erosion control. Cutting-edge technologies that use GPS and variable rate applications are also assessed.

While many Western Lake Erie basin producers have worked independently to curb agricultural runoff into the Great Lakes system over the past 50 years, recent Farm Bill programs have accelerated conservation efforts on private lands located in targeted watersheds throughout the region. Coordinated and targeted efforts through the Western Lake Erie Basin Initiative (WLEB), Great Lakes Restoration Initiative (GLRI), National Water Quality Initiative (NWQI) and Regional Conservation Partnership Program (RCPP) provide additional funding and leverage partnerships in priority watersheds, including those that flow into the Western Lake Erie basin. Six northeast Indiana counties are encompassed in this watershed including: Steuben, DeKalb, Noble, Allen, Wells and Adams.

"Conservation applied on any acre delivers an environmental benefit, but when conservation efforts target the most vulnerable watersheds and lands, the results are even greater," added Hardisty. "In Indiana, we further promote multiple conservation practices, or systems approach on the most vulnerable acres. This approach provides the greatest benefit to water quality and also to farmers by improving their soil health and keeping their nutrients and sediments on their fields instead of getting downstream."

These results and other CEAP assessments in the region provide another source for informing science-based conservation efforts within the basin. Upcoming assessments will continue to build upon this base.

To read the full report, visit: <a href="https://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/nrcseprd1355824.pdf">https://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/nrcseprd1355824.pdf</a>. For information about other technical and financial assistance available through Indiana NRCS conservation programs or contact Brian Musser.

### **For Rent**

### 7 Esch No till Drill Model 5507

- This equipment is good to plant small grain and grass seed.
- 2 Seed Boxes
- 15 Openers
- ◆ 5.5" Row Spacing
- 6'10" Planting Width
- 9'4" Transport Width
- Gas Engine & Hydraulics
- Weights & Lights
- \$5 an acre/\$25 min

# New! Land Pride 706NT Series No till Compact Drill 7 Width

- 10 rows, 7.5" row spacing, 2x13 single press wheels
- 5/8" turbo coulters, standard tougue, clevis hitch
- 2 Seed Boxes
- \$8 an acre/\$50 min



### Esch No till Drill



### **Land Pride No till Drill**

### **For Rent**

### BETTERWAY HI BOY SEED SPREADER

- Pulls with a single horse
- Broadcast cover crops
- \$4 an acre/\$40 min.

### Salford 522 Air Drill

- → 30 ' wide
- Capable of seeding cover crops and injecting dry fertilizer in the same pass.
- Provided by collaboration of Adams SWCD and Allen SWCD.
- Go to Adams Co. SWCD Facebook page for mini video about information on Salford drill.
- The regular rental price is \$30. This includes drill, tractor, & operator.

### **SPECIAL RATE:**

\$16/acre (\$15/acre if the invoice is paid within 10



### **Betterway Hi Boy Seed Spreader**



Salford 522 Air Drill

### Join us for lunch!



### **January 17, 2018**

11:30 AM - Luncheon Program Location: Appleseed Room B

### **Farm Bill**

Bob White, Director of National Government Relations Indiana Farm Bureau, Inc.

Please note that only <u>150</u> meals will be available for this event and they will be provided on a first come - first serve basis!

Sponsored by: Indiana Farm Bureau, Inc. & Adams, Allen, DeKalb, Huntington, LaGrange, Noble, Steuben, Wabash, Wells & Whitley County Farm Bureaus





4000 Parnell Avenue, Fort Wayne, IN 46805

### **Educational Seminars**

Provided by:

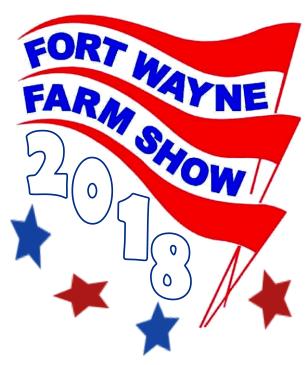
Northeastern Indiana
Soil and Water
Conservation Districts



### **PURDUE** EXTENSION

LOCAL FACES

Assistance and programs of the Soil and Water Conservation Districts, Natural Resources Conservation Service, ISDA, Division of Soil Conservation and Purdue Cooperative Extension Service are available without regard to race, religion, color, sex, age or disability.



### Allen County War Memorial Coliseum

### Educational Seminars Provided by:

Northeastern Indiana Soil and Water Conservation Districts &

Purdue Cooperative Extension Service

Major Farm
Manufacturing and
Distributor Trade Show

January 16 9 AM - 5 PM January 17 9 AM - 8 PM

**January 18** 9 **AM** - 4 **PM** 

## January 16, 2018 Appleseed Room A Moderator - Crystal Van Pelt Purdue Extension - Steuben County, IN

10:00 AM

### **Grain Market Outlook**



Jon Cavanaugh
Marketing Director
Central States Enterprises, Inc.

David Kohli Adjunct Professor Ivy Tech

Ryan Martin Chief Meteorologist Hoosier Ag Today

**Rob Winters**Farm Director, Newstalk 1190-WOWO

12:30 PM

Certified Livestock Producer Advantages

**Kimmi Devaney** 

Ag Marketing & Industry Development Indiana State Dept. of Ag

1:30 PM - 4:00 PM

Soil Sampling: What does it mean?

**Jamie Bultemeier** 

Agronomist & Director of Corporate Sales
A & L Labs

**Precision Manure Application** 

**James Wolff** 

Extension Educator Allen County, IN

Dicamba Regulations
Purdue Extension

Credits: PARP (\$10), Cat. 1, Cat. 14 & CCA

### January 17, 2018 Appleseed Room A

Moderator - Steve Engleking
Purdue Extension - LaGrange County, IN

10:00 AM

Science of GMO's

**Dr. Peter Goldsbrough** 

Professor at Purdue University Dept. of Botany & Plant Pathology

11:30 AM Luncheon Program

\* Appleseed Room B \*

**Farm Bill** 



**Bob White** 

Director of National Government Relations Indiana Farm Bureau, Inc.

1:30 PM

Weather Outlook 
Ryan Martin

Chief Meteorologist Hoosier Ag Today

**Grain & Livestock Market Outlook** 

**Dr. Chris Hurt** 

**Extension Specialist** 

**Ag Economics Dept., Purdue University** 

3:30 PM - 5:30 PM

**Termination of Cover Crops** 

& Weeds

**Bill Johnson** 

Professor of Weed Science
Purdue University

Dicamba Regulations
Purdue Extension

Credits: PARP (\$10) & Cat. 1

Wednesday continued...

5:30 PM - 6:30 PM

Financial Changes for the Family Farm in 2018

**Trent Wolfe** 

Managing Partner - Kline's CPA Group

Dan Gordon & Michelle Adler

Attorneys - Gordon & Associates, PC

**Kent Liechty** 

President/CEO - First Bank of Berne

A Presentation of WOWO Radio's Farmer Forum Series.

January 18, 2018 Appleseed Room A

**Moderator - Elysia Rodgers**Purdue Extension - DeKalb County, IN

9:30 AM



Grain & Livestock
Market Outlook

**Dr. Michael Swanson** Agricultural Economist Wells Fargo Bank

11:00 AM

Climate & Weather
Impacts to Ag
Greg Shoup
Meteorologist
News Channel 15

1:00 PM - 2:30 PM

Leases / Loans / Lending

Dr. James Mintert
Director
Purdue Center for Commercial Ag



### CONFERENCE REGISTRATION

First Middle
Last
Address
Phone
Registration Fee - Reduced rate until January 26
Per day (FRI) \$40 (SAT) Both \$60
Additional persons from your farm (indicate # attending) Per day (FRI)\$30(SAT) Both \$45
Children ages 12 & under (indicate # attending) Per day (FRI) \$15(SAT) Both days \$30
After January 26 Per day (FRI) \$55(SAT) Both \$75
Additional persons from your farm (indicate # attending) Per day (FRI) \$45(SAT) Both \$60
Children ages 12 & under (indicate # attending) Per day (FRI) \$15(SAT) Both days \$30
Total Enclosed \$
Checks payable to: Northern Indiana Grazing Conference 910 S Detroit Street
LaGrange, IN 46761
NO REGISTRATIONS BY PHONE
Email: lauren.rowe@in.nacdnet.net
receipt? Yes No

### NORTHERN INDIANA GRAZING CONFERENCE

	Friday. February 2
8:00 a.m.	Welcome – Dennis Lambright, Chairman
8:15 a.m.	Keynote Speaker – Mike Martin– "Profitable Grass based Dairy."
9:15 a.m.	BREAK
9:45 a.m.	<b>Farmer Panel</b> – "Managing an Organic Dairy Farm." - Larry Yoder, Lavern Kurtz, and David Mast, Moderated by Corneal Troyer
11:30 a.m.	LUNCH
12:45-1:45 p.m.	Break-out Session:  • Dan Mosgaller- "Global Grazing Perspectives.  • Dr. Larry Tranel- "Financial."
1:45-2:30 p.m.	Break-out Sessions:  • Vernon Hochstetler-"Practical Performance.  • Dr. Larry Tranel- "Parlor Design."
2:30 p.m.	BREAK
3:00-3:45 p.m.	Karry Estes-"Planning to make a good idea work."
3:45 p.m.	Dismissal
8:00 a.m.	Saturday, February 3 Welcome – Dennis Lambright, Chairman
8:15 a.m.	<b>Keynote Speaker</b> – <b>Reuben Stolzfus</b> – "Learning from the past with a vision for the future."
9:15 a.m.	BREAK
9:45 a.m.	<ul> <li>Break-out Sessions:</li> <li>Roundtable Discussion- "Grass Management."- Mike Martin, Glen Lambright, and Albert Miller, Moderated by Marlin Eash</li> <li>Dr. Ryan Leiterman- "Calf raising."</li> </ul>
11:15 a.m.	LUNCH
12:30 p.m.	Break-out Sessions:  • Steve Kotes—"Low stress animal handling."  • Reuben Stolzfus—"Produce."
1:30 p.m.	BREAK
2:00 p.m.	Steve Kotes- "Low stress animal handling."

Dismissal – Dennis Lambright, Chairman

3:00 p.m.

### SPEAKER BIOGRAPHIES

\*Mike Martin - is a grass based dairy farmer from Wakarusa, Indiana. Mike and his wife Sue have 4 children and 6 grandchildren. Son Ben is part of the farm business. Mike began dairy farming in 1981 and switched to grazing in 1991. Mike currently owns approximately 170 acres and operates around 300 acres. The milk cows are in 2 locations. All the acres are in grass and clover and he uses center pivot irrigation on the farms with the milk cows. They started using New Zealand genetics in 2001, and more recently started using aAa analysis for breeding.

Dan Mossgaller - Born and raised on an organic farm in Door County Wisconsin, we operated 500 acres and milked 60 Holstein/Lineback cows. After completing bachelor's degrees in political science and history at the University of Wisconsin-Madison, I began working for CROP₱ Cooperative/Organic Valley. During my nine years with CROP₱, I have held a few different positions including, Regional Pool Manager in Indiana, Ohio and Michigan, Milk Supply and Policy Manager and today as International Cooperative Development Coordinator. Along with my work for CROP₱, I am again living in Door County and farming 1,300 acres and milking 120 crossbred cows with my cousin and our family.

Dr. Larry Tranel -has spent 28 years working with dairy producers in Extension, both as a Dairy Farm Management Agent with the University of Wisconsin-Extension and the past 18 years as a Dairy Specialist with lowa State University. Larry is a former dairy farmer who has authored the Millionaire Model Dairy Farm Project, Managing Dairy Farm Finances and many other studies regarding the Economics of Dairy Grazing Systems and/or Organic Dairying. Larry is a dairy facility expert focusing on cow comfort and labor efficiency. Larry also designed the TRANS lowa Low Cost Milking Parlor which has become a popular alternative milking system. Larry owns a 70 acre organic/grazing dairy farm.

#### Farmer Panel

Larry Yoder and Susan Yoder, LaGrange IN: Larry and Susan moved to their current farm in 2001 from a farm in Topeka where they had also been milking since 1996. They were married in 1993, and have 6 daughters and 1 son. Their farm is 122 acres total; 62 owned, 60 rented. Their dairy herd is 60 head of Jerseys, and 30 heifers. Larry uses AI for breeding. All bull calves born on the farm are sold; about 60% of heifer calves are retained to build the dairy herd. The farm is certified organic, and the Yoder's practice rotational grazing, moving grazing paddock temporary lead fence 3-5 times per day.

Lavern Kurtz and Dorothy were married in 1999. We have five children; 3 girls ranging in age from 17 to 8 and have two boys that are 15 and 6. We own 115.5 acres and rent 36 acres on the west side of the road. We currently have 38 dairy cows and 30 replacement heifers. They are all Holstein x Jersey crossed. We raise com, and then small grain cover crop. Our alfalfa-grass mix new seeding is alfalfa, red clover, meadow fescue and orchard grass mix. One of my hobbies is buying Belgian stud colts and breaking them to sell.

**David Mast** and Doretta Mast live in Millersburg, Indiana. They got married in 2005 and moved on to David's home farm. The Mast's have 7 children; 5 boys and 2 girls ranging in age from 10 months old to 11 years old. The farm consists of 120 acres 112 tillable. They bought heifers in 2006, and started milking in 2007. They became certified organic in 2009 and ship their milk with Organic Valley. David raises some hay fields for pasture after the 1st cutting of hay, 35 acres are corn, 5 of a sorghum sudan, and 20 acres are winter spelt or barley as a nurse crop. David's dad helps a lot on the farm. The dairy herd is about 40 cows and a little over 30 heifers mostly Holstein some cross with Jersey Friesen and Fleckvieh.

Kerry Estes- graduated with a bachelor's degree in business operations management, and Christiana with a biology degree. Married in 1997, Kerry began working with his father in his metal fabrication plant located in Indianapolis, IN. Kerry and his wife purchased 188 acres in 1999 on contract from a local farmer. Kerry continued working in management for his father while cleaning up the farm and converting it from a conventional row crop farm to a grazing operation. Their initial goal was to custom raise replacement heifers. Unsuccessful at procuring a heifer contract, they invested in Holstein heifers of their own. After two disappointing purchases of several free martins, the Esteses began buying and raising cross-bred dairy heifers in a rotational grazing format.

Reuben Stolzfus— is one of the Amish godfathers of sustainable agriculture in Lancaster County. Reuben owns Lancaster Agriculture Products, the county's premier supplier of natural and organic products for 21st century Green farmers. Reuben's father Stephen Stoltzfus began this business in 1994. This company is a hugely-important advocate of ecofriendly agriculture. Reuben and his company are blazing a Green trail into sustainable American agriculture.

**Vernon (Shorty) Hochstetler-** is the owner of Schwarzerde LLC. We operate a beef cattle Seed-Stock business since 2003 with the farm being 100 percent grazing and/or hay production. We raise most of our hay supply on the farm. We currently operate the cow/calf side of the business on our own farm, with the finishing cattle being contracted out onto other farms in our community.

**Dr. Ryan Leiterman**-is the Director of Technical Services for Crystal Creek\* where he is responsible for product formulation and testing, on-farm trouble shooting and calf barn ventilation design. He graduated from the University of Minnesota - Twin Cities in 2004 with a degree in Agricultural Engineering and Veterinary School from the University of Wisconsin-Madison in 2009. After receiving his Veterinary license, he practiced dairy medicine in southern Wisconsin until 2012.

Steve Cotes-Steve and his wife Susan live on a small stock operation in Arco, Idaho. He has worked for 26 years helping farms and ranches with grazing lands and soil conservation with USDA, 17 of which were spent also teaching low stress stockmanship learned from Bud Williams. They have their own business now teaching clinics and schools helping cattle producers solve handling difficulties, increase stock productivity, reduce sickness and gain remarkable control.

#### \*Sr. Farmer Panel

\*Glen Lambright- Glen and Ruth Lambright moved onto the 76 acre farm in 1985. The farm had been rented out for a number of years before Glen and Ruth bought it, the buildings and fence were in poor condition. We started milking Holsteins and quit working off the farm the following year. In 2006 we became Certified Organic and got on the milk truck in 2009. Ruth and I have eight children, four girls and four boys that all helped with the farm work.

\*Albert Miller-The Miller family farm have been Certified Organic since 2006. The Miller family are farming 145 acres owning 140 acres and renting 5 of those acres. They milk 30 cows and are trying to increase their herd to 45 cows, as they are transitioning the farm to the next generation. They raise all their own replacement heifers and have 8 work horses used for pulling tillage equipment on the farm.



#### NIGC LOCATION

Michiana Event Center 4405 E Farver St. Shipshewana, IN 46565

The following is a list of hotels within a mile of the Michiana Event Center. These hotels may offer a discount for those attending an event at the MEC.

Super 8 (260) 768-4004
Old Cariage Inn (260) 768-7217
Der Ruhe Blatz (260) 768-7750
Van Buren Hotel (260) 768-7780
Blue Gate Garden Inn (260) 768-4725

#### **Grazing Conference Sponsors**

BEECH ROAD SEED & FERTILIZER AGRONOMIC SOLUTIONS

ORGANIC VALLEY

FARMERS STATE BANK

SUNSET EQUIPMENT

BALL LIQUID
SUPPLEMENT
WBZ FEED- HORSEMAN'S
PRIDE
MICHIGAN MILK
PRODUCERS
DAIRY FARMER'S OF

AMERICA

#### Trade Show Exhibitors

ply

AgrAbility Agri-King **Agronomic Solutions Ball Liquid Supplements** Basic Ag Best Forage Byron Seed/Townline Seed Supply Critter Blankets Elite Nutrition Farmer's Exchange FD Miller Feed and Supply Fiber By-Products Foremost Farms **HL Sales** Horizon Organic Indian Trail Tax Prep Insta-Gro JBF Distribution L&M Ag Lancaster Ag Products M.W. Repair & Sales

Millers Repair Shop Mullet's Machinery & Parts Nature's Way Organics Northern Indiana IBA NorthStar Cooperative **Nutritional Blending** Prairie Hybrid Seed Priority IAC Quellz Manure Products Ray's Repair Shipshe Farm Supply Simply Natural Bodycare Stutzman Power Equipment Summit Shelters Sunrise Metal Shop Sunrise Seeds Plus **Superior Poultry Products** The CISCO Companies Tupperware Veterinary and Poultry Sup-



Victor Shelton/NRCS State Agronomist Grazing Specialist

January 2018

I keep hearing in my mind the tune "Baby It's Cold Outside." In the last week or so, I've received several inquiries on water systems from producers trying to diagnose pump issues or other problems. I guess I just couldn't be left out of that crowd because I now have a leak in an area where I had moved some soil around late summer. Sometimes trying to figure out exactly what is going on with a leak can be difficult. An example of that is trying to find a leak in a long pipeline run going down a hill. The leak is most likely not where the water is coming to the surface, but where it found the easiest route out. That spot is quite often close to the actual elevation of the leak, very similar to the workings of a spring. If the pipeline is three feet deep, then start looking about three feet in elevation uphill from the leak. Sometimes you are lucky, especially if it is on relatively flat ground and the water just surfaces from the same spot.

It is always good to adhere to good installation practices when installing pipeline. Before covering up a newly installed pipeline, it is always best to pressurize it for a day to check for leaks before burying it. If you have tees going off those lines, it never hurts to write down reference points, take a GPS point and or picture before coving it all up for later reference. That has paid off for me more than once, especially when I wanted to add on to the system. I like to install a tee with a short stub of pipe on it for any spot where I might want to add on in the future. That stub of a pipe is a lot easier to connect to than having to splice in a tee after the fact.

The next thing I highly recommend is installing some shut-off valves. Just like switches on an electric fence system, shut-off valves do two valuable things; they help you narrow down where the problem is and then allow you to be able to just shut off that portion of the system. I prefer ball-type shut-off valves. They take a lot of abuse and the handle on them is normally very effective for shutting off with a tool from ground level. For most smaller ball valves, a piece of 1.5 or 2 inch PVC pipe can be notched and used as a handle to turn these valves off and on from the surface.

The shut-off valve should be installed at the same depth of the pipeline. A piece of 4 or 6 inch schedule 40 PVC pipe can be then installed over the valve. Notch out the lower end to fit over the pipe, dig down a little below the valve and backfill with some river gravel or large stone to provide a little drainage, and then place a cap on top of it to keep debris out and the valve clean. I put a small piece of foam insulation in the lid to help retain any possible geothermal warmth during the cold months. If you drill a small hole (1/8 inch) in the lid, you will find it makes getting the lid off easier and you can also run a string up through it with a knot on it to keep from losing that foam piece. Aluminum bubble-wrap insulation is also good.

Water systems that are put in above the freeze line, temporary or seasonal systems, need to be drained prior to deep freeze temperatures. For all systems that are not temporary or seasonal, that depth varies some, but it needs to be below freezing levels. It is normally recommended that the minimum depth be at least 3 feet for most of southern Indiana and up to 4 feet for the northern part of the state. If the pipeline is going under a road, lane, or an area with limited cover such as a barn lot, it is advisable to run it a foot deeper.

We talk about forage residual and residue quite frequently when it comes to forage management, but it is also important for the water lines. That sod layer on top the soil is actually very good insulation. If you have to dig a hole for some reason in the winter, you don't choose a spot where the soil is bare (hopefully there is no bare soil), but rather a spot where there is heavy sod. I'm confident that if I had had my normal cover on that area of my leak, I wouldn't have had a problem. I will procrastinate a day or two with that portion of the watering system shut-off in hopes that the weather will warm up a little.

I really like working with schedule 40 PVC pipe. It is fairly easy to splice into and fittings are easy to glue together, as compared to other types of pipe. But on rare occasions, especially under very adverse cold weather conditions and either not deep enough or lacking sufficient insulation, the freezing and thawing of the soil can occasionally pop a joint. The section where I have the problem with the pipe is at least 36 inches below the surface...but limited ground cover on that spot. I had moved some soil to divert some water and just didn't get enough fall growth back on it. I'll throw the weather under the bus, too dry when I needed to get some good growth, and now too dang cold!

Back to the subject of shut-off valves. If you are on municipal water, then being able to shut off a leak as soon as possible will certainly save you money. You and or your livestock are still going to need water, so hopefully any issues are narrowed down to a particular tank, hydrant, or specific water line so you can use another tank or system until that problem area is fixed. If you are using a well, the pump will be cycling a lot more often than normal if you have a leak. If the leak is bad, it will run almost constantly. If you don't know where the leak is, then shut off valves to different parts of the system until the pump is working normally, not losing pressure. That will help narrow the search down.

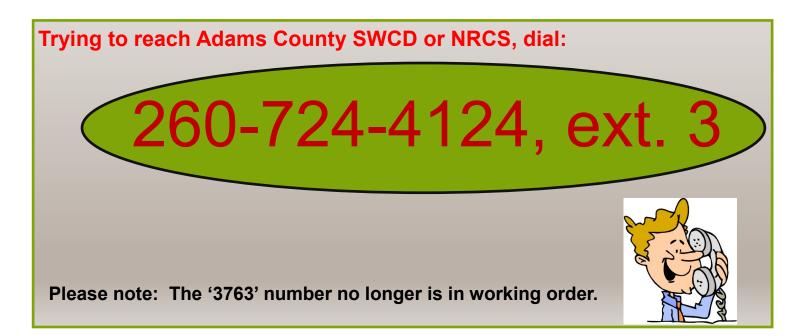
I'm glad that we don't have winters this cold every year. It is a good reminder to make sure to install systems for all types of weather, have a water contingency plan, and of course, maintain that vegetative cover for multiple reasons. Most livestock prefer water between the temperatures of 37 and 65 degrees Fahrenheit. Cows will consume a fair amount of snow, especially if they are grazing stockpiled forages or winter annuals covered with it. Could it be the only source of water in some cases? This is a good question and the answer would probably begin with the words, "it depends." The moisture content of what the cattle are grazing and their personal water needs play a big part here, with dry (non-lactating) cows, snow probably most likely is sufficient. But, if water is available...I've never seen them turn it down which tells me they still prefer to be able to drink some, and liquid water (or warmer water) utilized won't require as much energy.

When planning ahead, especially thinking about what you might need or like to do for the next grazing season or winter, consider contacting your local Natural Resource Conservation Service (NRCS) office for assistance on planning and possible financial assistance.

Keep on grazing!

Vic Shelton

More pasture information and past issues of Grazing Bites are available at <a href="http://www.nrcs.usda.gov/wps/portal/nrcs/main/in/technical/landuse/pasture/">http://www.nrcs.usda.gov/wps/portal/nrcs/main/in/technical/landuse/pasture/</a>



### **Contact Us**

(260) 724 4124, ext. 3

### www.AdamsCountySoilandWater.com/

SWCD County Conservationist: Sandy Voglewede Sandy.Voglewede@IN.nacdnet.net

SWCD Assistant Conservationist: Misty Gehres Melissa.Gehres@in.nacdnet.net

NRCS District Conservationist: Brian Musser Brian.Musser@in.usda.gov

NRCS Soil Conservationist: Joyce Thompson Joyce.Thompson@in.usda.gov

### **Adams County Soil & Water Conservation District Board:**

Board Chairman: Randy Roe Supervisor: Corey Bulmahn

Board Vice chairman: Paul Bluhm Supervisor: Dean Tonner

Treasurer: Jeff Kiess Associate: Gene Witte

Adams County Soil & Water Conservation District 975 S. 11th Street Decatur, IN 46733

PLACE STAMP

STAMP HERE