

LEM NEWS



Greetings! By the time you read this I'll have officially been on this planet for 30 years.

While the number itself doesn't freak me out, the thought of what I have and have not yet accomplished does. I think sometimes we get so wrapped up in things we haven't done yet, that we forget about all the good things we have going on. It's hard to believe I've been in Carrington for five years, let alone had the power to influence others pertaining to their operation management decisions.

I challenge you to think back over the last couple of years and find the positive things you've accomplished. I've had the opportunity to see several of those positive things, mostly small changes that have made a lasting impact on your day-to-day operations. I'm excited to continue working with producers, haulers, Extension agents and others. This summer is going to be jam-packed with plenty of manure talk and adventure.

On the personal side of things, I'm going to be an expert at ripping out old fences and putting up new! On the professional side, I'll be busy in June collecting forage samples for our bale grazing research project. July will take me to Utah for the National Association of County Agricultural Agents professional improvement meeting. While there, I will have the opportunity to share what ND producers are doing from a manure management standpoint at the educational meetings as well as showcase youth projects that our Extension team has been working on.



I'll end the summer in Arlington, Wisconsin with the North American Manure Expo as well as Nutrient Management Day here at the CREC in August.

I'll have pictures and reports on all of this when we visit again! As always, contact me to chat about all things manure. Here's to the next 30! —MB

Nutrient Management Day

August 29, 2017
10:00 a.m.

Carrington REC
663 Highway 281 NE
Carrington, ND

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North American MANURE EXPO 2017

Innovation. Research. Solutions.



AGENDA

Tuesday, August 22

8:00 am - 5:00 pm **REGISTRATION.** Registration fee for tours (\$20) all other events are free

8:00 am - 12:00 pm **TOURS**

- Tour #1 - Statz Brothers Inc., Sun Prairie, WI. (4000 Cow Manure Digester, Bedding Recycling, 750,000 Gallon Digester Pit, 20 Million Gallon Liquid Manure Storage Structure)
- Tour #2 - Arlington Ag Research Station. (Dairy Manure Sand Processing & Recycling, Swine Manure Settling System / Irrigation of Liquid Portion, Manure Runoff Study Plots)
- Tour #3 - Endres Composting. (Composting Dairy Manure Under Roof, Topdressing Alfalfa Fields with Compost, Recycling Composted Dairy Manure as Bedding)

12:00 pm - 8:00 pm **TRADESHOWS.** Over 80 exhibitors, educational programs, and more!

1:30 pm - 3:30 pm **AGITATION DEMONSTRATION.** Blaine Dairy Manure Pit

4:00 pm - 6:00 pm **INDUSTRY EDUCATIONAL SESSIONS**

- Puck's Pump School
- Foam Control Demonstration
- Gas Safety
- Sand Bedding Management

8:00 pm **GROUNDS CLOSE**

Wednesday, August 23

8:00 am **REGISTRATION OPENS.** All events are free

9:00 am - 6:00 pm **TRADESHOW**

9:00 am - 12:00 pm **EDUCATIONAL SESSIONS: Research and Solution Seminars**

- Use of Nitrification Inhibitors with Manure (Carrie Laboski, UW-Madison)
- Dairy Manure Application Methods: Nitrogen Credits, Gaseous Nitrogen Losses and Corn Yield (Carrie Laboski, UW-Madison)
- An Overview of Wisconsin's SnapPlus Nutrient Management Planning Software Program (Laura Ward Good, UW-Madison)
- Manure Application Timing Effects on Phosphorus Loss in Runoff (Peter Vadas, USDA-ARS Dairy Forage Research Center, Madison, WI)
- Secondary & Micronutrients Available in Dairy Manure (Richard Halopka, UW Extension-Clark County)
- Microbial Response to Organic Matter Additions to Soils - What Do We Know and Why Do We Care? (Thea Whitman, UW-Madison)
- Wisconsin's Runoff Risk Advisory System (Sara Walling, Wisconsin Department of Agriculture, Trade & Consumer Protection)
- Nitrogen Dynamics in Manured Systems (Kevan Klingberg, UW Discovery Farms)
- Manure and Winter-Friends or Foes? (Amber Radatz, UW Discovery Farms)
- Evaluating the Environmental Benefits and Economic Opportunities of Windrow Composting Solid Dairy Manure (Andrew Skwor, PE, CPESC-Agricultural Services Team Leader)
- Minimizing Manure and Nutrient Transport to Tile Systems (Aaron Pape, UW Discovery Farms)
- Safety Practices Around Manure Storages (Cheryl Skjolass, UW-Madison)
- Manure Gas Monitoring (Cheryl Skjolass, UW-Madison)
- Maximizing Nutrient Value from Manure Storages (Becky Larson, UW-Madison)
- Manure Safety (Rick Martens, Minnesota Custom Applicators Association)
- Sidedressing Emerged Corn with Liquid Manure Using a Drag Hose (Glen Arnold, Ohio State University)
- Sidedressing Emerged Corn with Liquid Manure Using a Manure Tanker (Glen Arnold, Ohio State University)
- Manure Application Uniformity - Why it Matters and Performance of Available Manifolds (Dan Anderson, Iowa State University)
- Nutrient Separation or Improved Hauling Logistics - Making Sense of Which Options Fits Your Operation (Dan Anderson, Iowa State University)

1:00 pm - 4:30 pm **FIELD DEMONSTRATIONS**

- Manure Applications to Cover Crops
 - Solid Manure Applications
 - Liquid Manure Applications
 - Side Dressing Corn
 - Using a Dragline in Standing Corn

6:00 pm **GROUNDS CLOSE**

Feedlot Tour to visit western North Dakota



Participants at a previous Stockmen's Association Tour stop.

The 15th annual NDSA Feedlot Tour will be June 20 at feedlots near Center, Stanton, Hebron and Richardton. The day-long tour will include stops at Rocky Valley Ranch; Price Farm and Ranch; Wanner Feedlot; and Beaver Creek Ranch. Bus transportation will be provided to and from the stops. The bus will depart from the Bismarck K-Mart parking lot at 8 a.m. CT and return at approximately 5:30 p.m. CT.

Rocky Valley Ranch near Center is the tour's first stop. Rob Schmidt and his family operate the facility. The custom backgrounding and heifer development feedlot was newly constructed and permitted in 2008 for

999 head. The Rocky Valley Ranch feedlot features continuous steel fence, trough-type water tanks, super steel windbreaks with guardrail bottoms and a cowboy alley exiting the back of the pens.

Price Farm & Ranch near Stanton is the tour's second stop. Steve and Linda Price and their son Cole operate the facility, updated in 2012. Price's primarily finish cattle in the 840-head permitted feedlot. The operations features cable feedlot fence, concrete heavy-use pads and a custom processing facility with an adjustable alleyway and roof.

The Wanner Feedlot near Hebron is the third tour stop. Dave Wanner and son Greg operate the backgrounding operation. Permitted in 2012 for 999 head, the facility includes well-drained pens, rubber tire waterers and a curblin feeding system with adjustable neck rails. The operation also houses a state-of-the-art processing facility utilizing the Bud Box concept and a double alleyway.

The final tour stop is Beaver Creek Ranch owned and operated by the Phillip Messer family. Expanded in 2011, the backgrounding facility is permitted for 999 head. The operation features large, well-drained pens, curblin feeding systems and the ability to sort in several directions after processing.

The NDSA Feedlot Tour, a project of the NDSA Feeder Council, includes a noon lunch at the Wanner stop. Pre-registration is not a requirement, but is appreciated for planning purposes. To pre-register, contact NDSA Environmental Services Director Scott Ressler at (701) 223-2522 or sressler@ndstockmen.org. *Reprinted with permission.*



The North American Manure Expo
"Crappiest T-Shirt Slogan" contest is back!

Applications due: June 15th

Winning slogan entrants will receive a free t-shirt!

Last call —

Post your entries for the 2017
North American Manure Expo
"Crappiest T-Shirt Slogan"
Contest
...enter as many times as you want,
but get your crappy suggestions in by
June 15, 2017.

CLICK TO ENTER CONTEST!

Manure and Soil Health Presentations Bring Experts, Give Voice to Wondering Minds

Farmers and ranchers are becoming increasingly aware of the importance of soil quality/health to the productivity and sustainability of their agricultural system. Research and field observations have demonstrated that carefully managed manure applications can contribute to improved soil quality with limited environmental and social risks. However, a comprehensive assemblage of outputs and conclusions from research studies, field trials, soil labs databases, and other sources has never been developed.

A north central region work group addressing Manure & Soil Health hosted four discussions in an effort to improve the understanding of current knowledge, critical and emerging issues for which there are knowledge gaps, and information needs of farmers and their advisors.

The purpose of the initiative is to assemble current knowledge on this topic, make it available to those influencing manure and land management decisions, and use it to inform and facilitate future research and service needs.



NORTH CENTRAL REGION
WATER NETWORK

The presentations and discussions were held in February and March 2017. They focused on [Manure and Soil Health Testing](#); [Manure and Soil Biology](#); [Manure and Soil Erosion, Runoff and Losses](#); and [Manure and Cover Crops](#).

Archived recordings of these discussions are available by clicking on the links of each topic title.

In the [Manure and Soil Health Testing](#) discussion, the goal was to discover what current soil health tests help to quantify manure impacts on soil characteristics, thus determining a preferred soil tests. Experts and participants debated which types of fields might benefit from manure and sampling for soil health testing. A Nebraska crop farmer discussed his experiences and observations related to the value of manure.

In the [Manure and Soil Biology](#) discussion, the goal was to discover the influence of manure, both positive and negative, on soil biology. Experts introduced principles of soil biology and role of manure, discussed if certain fields will produce more soil biology benefits than others, and introduced role of insects and manure in soil biology. Finally, participants debated whether an economic value for manure beyond its nutrient value can be derived.

In the [Manure and Soil Erosion, Runoff, and Losses](#) discussion, the goal was to discover the influence of manure on soil and runoff. Information was shared on the relationship between manure solids addition to the soil and the reduction in soil erosion based upon multiple long-term USDA field studies. It was debated whether an economic and environmental value for manure beyond its nutrient value, due to improved moisture retention and decreased erosion, can be derived. A manure management consulting business shared their observations about the value of moving manure from livestock farms to neighboring crop farms with little or no history of manure use.

In the [Manure and Cover Crops](#) discussion, the goal was to discover whether manure and cover crops have complementary benefits related to soil quality. Experts and participants debated nutrient planning questions, cover crop establishment and production, and whether timing of application affects these benefits. A representative of Practical Farmers of Nebraska shared their field research and experience supporting the complimentary benefit from manure and cover crops.

Author: Leslie Johnson, University of Nebraska – Lincoln. Reviewer: Rick Koelsch, University of Nebraska – Lincoln. Reprinted with permission.

V1136 (Revised)

Cyanobacteria (Blue-green Algae) Poisoning



NDSU EXTENSION SERVICE
December 2015

Revised by
Miranda A. Meehan
Extension Livestock Environmental Stewardship Specialist
Michelle Mostrom
Veterinary Toxicologist

NDSU Extension Publication V1136 addresses Cyanobacteria (Blue-green Algae) Poisoning and Diagnosis.

At least four types of potentially poisonous cyanobacteria are known to occur in North Dakota. However, not all cyanobacteria are poisonous, and the cyanobacteria that generate poisonous toxins do not always do so.

Toxins from these bacteria, termed cyanotoxins, are poisonous to nearly all livestock and wildlife. Cyanobacterial toxins are primarily neurotoxic (affect the nervous system) and hepatotoxic (affect the liver). These toxins also are poisonous to humans.

DIAGNOSIS

You can determine the presence of cyanobacteria in a number of ways. If you suspect concentrations of cyanobacteria in a water body, walk around to the leeward (downwind) side of the water body. **If any dead animals such as mice, muskrats, birds, snakes or fish are present, assume a poisonous condition exists.**

A veterinarian should conduct a **necropsy** on deceased livestock to rule out other causes of death. If you suspect cyanobacteria, contact your veterinarian to determine which samples would be appropriate for your situation.

Microscopic examination is one way to determine the presence of potentially poisonous cyanobacteria, but the presence of the bacteria does not mean the water is toxic. **Testing the water with laboratory analysis is probably the most accurate method of determining whether poisonous toxins are present.** A water sample of at least 500 ml should be collected from the suspected water source after the discovery of death. *Water testing only will determine if the water*

source contains cyanobacteria, not cause of death.

Water samples should be submitted to the NDSU Veterinary Diagnostic Lab or a commercial laboratory. For more information on how to submit samples, contact the lab at (701) 231-8307 or visit its [website](#).



58th Annual Field Day Tuesday, July 18

9:00 a.m.
Refreshments
9:15 a.m.
Welcome
9:30 a.m.
Morning Tours
Noon
Meal
1:00 p.m.
Afternoon Tours

Morning tours include:

Agronomy
Livestock Production
Northern Hardy Fruit Production
Organic and Sustainable Agriculture

Afternoon specials:

Soil health workshop
Fruit production
Agronomy topics: UAV applications, plant nutrition, soybean weed management traits, rye cover crops, industrial hemp, beef production with cover crops.

NDSU Carrington Research Extension Center
663 Hwy 281 NE • Carrington, ND 58421 • 701-652-2951

Individuals with disabilities are invited to request reasonable accommodations to participate in NDSU-sponsored programs and events. To request an accommodation(s), please contact the Carrington REC at 701-652-2951 by July 15 to make arrangements.

International W2W3 combined science, stewardship



The third international Waste to Worth Conference was held on April 18-21 in Cary, North Carolina. Two hundred people from all over the USA and the world attended this successful event which focused on the science and stewardship of nutrient management as well as practical application of that science.

There was a wealth of information shared in a formal educational setting. Our own Dr. Jasper Teboh from the CREC gave a presentation on his research using distillers co-products as crop fertilizer. The proceedings and recording of all the sessions can be found here: <http://articles.extension.org/pages/74230/agenda-for-waste-to-worth-2017>.

Informal tours of various topics were also part of the agenda. I attended the pasture-based systems for animal waste management (small farms, Eastern NC) tour. We visited horse farms at rural/urban interfaces as well as a pasture-based dairy and research farm that looked at crop rotations vs. tillage as well as how tree growth may be affected by various grazing scenarios.

As the Social and Networking Committee chairperson, I was responsible for bringing folks together from across all disciplines (manure management, mortality management, air quality, water quality) to share ideas and form collaborations. My committee organized lunchtime discussions so attendees could have informal discussion based around a specific topic. Topics included grant writing tips, early career advice, manure and soil health, and engaging producers.



Manure management and composting bins at Blue Skies Stables.



Early Career Advice lunchtime conversation.



Mary Berg with Leslie Johnson, fellow committee member from the University of Nebraska Extension.

We also organized “Suppers for Six” where conference attendees signed up to eat a meal with a group of folks they didn’t know or wanted to get to know better. A slideshow of photos submitted by conference attendees can be found here: [photo slideshow](#).

The next Waste to Worth Conference will be held in 2019. The location is still being determined but there is no doubt in my mind that the quality of information shared will be exceptional no matter where it is. --Mary Berg

Project Safe Send

Farmers, ranchers, pesticide dealers and applicators, government agencies and homeowners with unusable pesticides can bring them to any of the Project Safe Send Sites listed below.

Project Safe Send is a safe, simple and non-regulatory program that helps people safely and legally get rid of unusable pesticides free of charge. Since 1992, thousands of people have brought in over 4 million pounds of pesticides to Project Safe Send.

The program accepts old, unusable or banned pesticides, including herbicides, insecticides, rodenticides and fungicides. For a list of accepted items, click on "Accepted Pesticides" in the left column. The collected pesticides are shipped out of state for incineration. Project Safe Send is funded through product registration fees paid by pesticide manufacturers.

People are urged to check their storage areas for any unusable pesticides and safely set them aside for Project Safe Send. If the containers are deteriorating or leaking, pack them in larger containers with absorbent materials. Free heavy-duty plastic bags are available from the North Dakota Department of Agriculture.

For more information on transporting your pesticides safely please view the additional information at <https://www.nd.gov/ndda/program/project-safe-send>.

Contact Jeremiah Lien at jjlien@nd.gov or 701-425-3016 to pre-register. A maximum of 20,000 pounds of pesticides per participant will be accepted.

2017 PROJECT SAFE SEND SITES

All collection sites are located at North Dakota Department of Transportation (NDDOT) facilities. Open 8:00 a.m. to 12:00 p.m. (local time).

July 12 Ashley 520 7th St SW
July 13 Bismarck 218 Airport Rd
July 14 Hettinger 121 1st St N
July 17 Dickinson 1700 3rd Ave W Ste 101
July 18 Tioga 425 2nd St SE
July 19 Minot 1305 Hwy 2 Bypass E
July 20 Harvey 501 Jackson Ave
July 25 Wyndmere 7775 Hwy 18
July 26 Valley City 1524 8th Ave SW
Aug 1 Devils Lake 1905 Schwan Ave NW
Aug 2 Langdon 10424 Hwy 5
Aug 3 Larimore 1524 Towner Ave



To obtain plastic bags or for more information, contact: Jeremiah Lien, NDDA Pesticide Outreach Specialist by phone at 701-425-3016 or (800) 242-7535, or email jjlien@nd.gov.

North American **MANUREXPO** 2018 in Brookings, SD Professionalism in Nutrient Management

South Dakota State University and SDSU Extension will host the 2018 [North American Manure Expo](#) on Wednesday and Thursday, August 15-16, 2018 at the Swiftel Center in Brookings, SD, about an hour north of Sioux Falls.

The Brookings site will have room for the exhibitors, educational sessions, and machinery demonstrations that the NAME is known for, and this location near Sioux Falls is ideal for attendees travelling from neighboring states or those who need airline service, and it's near the South Dakota feeding industry.

The planning committee has gained a variance by the City of Brookings to apply manure on city-owned ground leased to a local producer; the site is within walking distance from the Swiftel Center.

The 2018 planning committee includes: Erin Cortus, Associate Professor & SDSU Extension Environmental Quality Engineer; David Kringen, SDSU Extension Water Resources Field Specialist; John Lentz, Resource Conservationist, South Dakota NRCS Nutrient Management Team. They will be joined by Mary Berg and Nicole Wardner from NDSU Extension; Kevin Banken and Ian Olson of Control Crop Consulting; Andy Scholting and Allissa Troyer of Nutrient Advisors, West Point, Nebraska; Eric Barsness from SD NRCS; Anthony Bly of SDSU Extension; Leslie Johnson of UNL Extension; and Ben Stout from the SD Department of Agriculture. Additional team members will be announced soon.

Coming Events

- June 20. ND Stockmen's Association Feedlot Tour.
- July 10. Field Day, Central Grasslands Research Extension Center, Streeter, ND.
- July 11. Field Day, Hettinger Research Extension Center.
- July 12. Field Day, Dickinson Research Extension Center.
- July 13. Field Day, Williston Research Extension Center (Dryland)
- July 14. Field Day, Williston Research Extension Center
(Nesson Valley irrigated site)
- July 17. Field Day, Agronomy Seed Farm, Casselton, ND.
- July 18. Field Day, Carrington Research Extension Center.
- July 20. Field Day, Langdon Research Extension Center.
- July 20. Field Day, North Central Research Extension Center, Minot, ND.
- July 21-29. North Dakota State Fair.
- August 22-23. [North American Manure Expo](#), Arlington, WI.
- August 24. Row Crop Tour, Carrington Research Extension Center.
- August 29. Nutrient Management Day, Carrington Research Extension Center.

Center Points: Easy as 1-2-3...

The Carrington REC has a weekly blog with updates on what's happening now and information on coming events. Read online at www.ag.ndsu.edu/CarringtonREC or subscribe to receive a weekly reminder and quick link.

Subscribing is as easy as 1-2-3:

1. Send an e-mail to Listserv@listserv.nodak.edu
2. Leave the subject line of the email blank
3. In the body (not the subject line) of the e-mail enter the following:
SUB NDSU-CARRINGTONREC-CENTERPOINTS yourfirstname yourlastname

OR: Simply send a regular email to Mary.Berg@ndsu.edu.



Contact Us —

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Visit us on the web at www.ag.ndsu.edu/CarringtonREC



NDSU EXTENSION
SERVICE

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