University of Nebraska - Lincoln
DigitalCommons@University of Nebraska - Lincoln

Livestock and Poultry Environmental Learning Center Newsletters

Livestock and Poultry Environmental Learning Center

1-1-2007

LPE Center News, January 2007

Follow this and additional works at: http://digitalcommons.unl.edu/lpelcnewsletter

Part of the Other Animal Sciences Commons

"LPE Center News, January 2007" (2007). *Livestock and Poultry Environmental Learning Center Newsletters.* Paper 5.
http://digitalcommons.unl.edu/lpelcnewsletter/5

This Article is brought to you for free and open access by the Livestock and Poultry Environmental Learning Center at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Livestock and Poultry Environmental Learning Center Newsletters by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

National Livestock and Poultry Environmental Learning Center

LPE Center News

January, 2007 | Connecting Experts With Those Advising Producers | http://lpe.unl.edu

In this issue:

- *February Webcast Panel to Discuss Manure Application to Legumes…….1*
- *CCA Continuing Education Units for LPE Learning Center Webcast Participation……..1*
- *Phosphorus Publications Featured on SERA 17 Website……..2*
- *Effects of Composting on Nutrients in Livestock Manure..2*

January 19, 2007 Webcast Reminder

"Integrated Nutrient Management and Limits of the P-Index"

More information

Subscribe Now!
If you do not already receive this newsletter, you can subscribe at http://lpe.unl.edu.

Share This Newsletter
A text version of each article is available at http://lpe.unl.edu (click on newsletter) for reprinting in other newsletters or media.

LPE Coordinator:
Jill Heemstra
jheemstra@unl.edu

LPE Learning Center Webcast Series

February Webcast Panel to Discuss Manure Application to Legumes

Jim Baker

Stephen Herbert

Iowa is phasing in a ban on application of manure to soybeans. How will the environment benefit? Is this based on science or politics? Four panelists will discuss manure application to legumes along with the pros and cons surrounding that practice. Participants will receive information about research on manure application to alfalfa and soybeans as well as the potential for salt toxicity to crops and nitrate leaching to water. More…

Charles Shapiro

The speakers for this seminar are Dr. Jim Baker, professor emeritus at Iowa State University, Dr. Stephen Herbert, Professor of Agronomy at the University of Massachusetts, Dr. Charles Shapiro, Professor of Agronomy and Horticulture at the University of Nebraska-Lincoln, and Dr. Matt Helmers, Extension Agricultural Engineer at Iowa State University.

Matt Helmers

Date/Time: Friday, January 19, 2007 at 2:30 pm Eastern, 1:30 pm Central, 12:30 pm Mountain, and 11:30 am Pacific.
How to Attend: Go to http://lpe.unl.edu/webcast2.html for directions.

What's Going On in the LPE Learning Center?

CCA Continuing Education Units for LPE Learning Center Webcast Participation

An application for continuing education units (CEUs) through the American Agronomy Socity Certified Crop Advisor program association has been submitted for the several LPE Learning Center webcasts. Many thanks to Fred Vocasek, past chair of the CCA Board for his encouragement and assistance with this process.

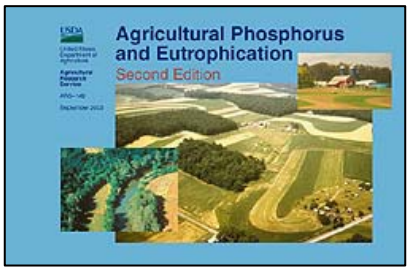
The "Pathogens in Animal Manure-Should We Be Concerned? (Parts 1 and 2)" webcasts are proposed for 1 CEU each for Soil and Water Management. The archived presentations are available at http://lpe.unl.edu/archive2.html. When available, instructions for obtaining CEUs will be posted to the archive.

The January, February, and March webcasts, a series related to integrated nutrient management, are proposed for one CEU each in nutrient management. When the applications are approved, instructions will be posted on the http://lpe.unl.edu page.

National Resources

Phosphorus Publications Featured on SERA-17 Website

If you are looking for science-based information related to phosphorus and water quality, one resource that should be on your list is the publications on the SERA-17 website.



SERA-17 is the Southern Extension-Research Activity Group #17. It is comprised of scientists from across the United States, Canada, and Europe. The goal is to bring together scientists from a wide variety of disciplines who share an interest in finding innovative ways to minimize phosphorus losses from agriculture. The group has over 75 members, including research scientists, policy makers, extension personnel, and educators.

Among the electronically-available publications are a series of 32 fact sheets on best management practices (BMPs) related to phosphorus. Each fact sheet describes the practice, potential applications and limitations of the BMP, effectiveness, cost, operation and maintenance considerations, and where to obtain additional information.

A good example of the impact of this group is the Phosphorus Index. The concept originated and was refined through discussions of this very diverse group of professionals. As a result, phosphorus index tools have been adopted by almost every state as part of the nutrient planning process.
-Dr. Doug Beegle, Pennsylvania State University

The SERA-17 publications can be accessed at: http://www.sera17.ext.vt.edu/SERA_17_Publications.htm

Spotlight On…

Effects of Composting on Nutrients in Livestock Manure

Interest in composting livestock manure is increasing rapidly. Some of that interest is due to the fact that properly composted manure is relatively free of pathogens, objectionable odors, and weed seeds. Composting is a complex process and it changes manure in other ways as well.

Compost is less bulky and drier than manure, making it easier to handle and apply. In one Nebraska study, as much as 60% of the carbon of beef manure was lost during composting. The moisture content is reduced from approximately 40-60% in manure to 30-35% in mature compost.

Nutrients also undergo changes, including losses, during this process. Up to 40 or 50% of the nitrogen may be lost although studies show that mixing manure with a carbon source has the potential to reduce this loss. The remaining nitrogen is relatively stable and not as readily available to plants as the nitrogen found in raw manure.

Some phosphorus, especially soluble phosphorus, is lost during composting. This reduction is not as great as that of nitrogen. This difference means that compost, when applied at rates to meet crop nitrogen needs, will oversupply phosphorus to a greater extent than raw manure.

The phosphorus in compost is readily plant-available, but most is not water soluble, thus the risk of phosphorus being present in water runoff from compost-applied sites is generally less than a comparable site applied with raw manure.

Additional reading:
-Cornell University Composting Website
-Composting Effects on Phosphorus Availability in Animal Manures, SERA-17 Phosphorus Best Management Practices Series.
-Ohio Composting and Manure Management

This material is based upon work supported by the Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture, under Agreement No. 2005-51130-03315. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture."