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June 2008

## LPE Center News, June 2008

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"LPE Center News, June 2008" (2008). *Livestock and Poultry Environmental Learning Center Newsletters*.  
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**In this issue:**

- *Ammonia: The Air-Water Interface.....1*
- *Federal Air Regulations for Animal Feeding Operations.....1*
- *USGS Report Focuses on Research About Water Consumed by Livestock Production.....2*
- *Water Quality Credit Trading is the Focus of August Workshop.....2*
- *Great Lakes Manure Handling Expo.....2*
- *Want to Reduce Ammonia Emissions from Layers? Feed Them Fiber!.....2*

**June Webcast**

“Managing Manure on Small Farms”

June 20, 2008 at 2:30 pm (EDT) [More...](#)

**LPELC Home page:**

<http://www.extension.org> and click on “Animal Manure Management”

**Continuing Education Units:**

are available through the Certified Crop Adviser program and American Registry of Professional Animal Scientists [More...](#)

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LPE Learning Center Webcast Series

## Air Quality Team Presents a Webcast Double-Feature

The NRI-funded Air Quality Education in Animal Agriculture project will kick off a series of air quality webcasts with two presentations on June 27 and July 18. These topics were chosen based on your responses to last year’s survey.

### Ammonia: The Air-Water Interface

Ammonia is rapidly becoming an issue of great importance to animal agriculture. Find out why it is a concern and learn more about the effectiveness of best management practices for reducing ammonia losses to the atmosphere. More information is available at:

<http://cop.extension.org/mediawiki/files/e/e1/08jun27flyer.pdf>.



The speakers are Randal Martin, Utah State University; Jessica Davis, Colorado State University; and Pius Ndegwa, Washington State University.

*Date/time:* This webcast is an addition to our normal schedule. This webcast ‘extra’ will be held on Friday, June 27, 2008 at 2:30 pm (eastern); 1:30 pm (central); 12:30 pm (mountain) and 11:30 am (pacific).

### Federal Air Regulations for Animal Feeding Operations



This webcast will focus on federal air regulations and their relevance to animal agriculture. The presentation will also include an update on the National Air Emissions Monitoring Study (NAEMS). For more information visit:

<http://pubwiki.extension.org/mediawiki/files/1/15/08julflyer.pdf>.

The speakers are: Sally Shaver, US EPA and Al Heber, Purdue University.

*Date/time:* Friday, July 18, 2008 at 2:30 pm (eastern); 1:30 pm (central); 12:30 pm (mountain) and 11:30 am (pacific).

*How to participate:* See the steps at

[http://www.extension.org/pages/How\\_Do\\_I\\_Participate\\_in\\_a\\_Webcast%3F](http://www.extension.org/pages/How_Do_I_Participate_in_a_Webcast%3F).

## USGS Report Focuses on Research About Water Consumed by Livestock Production

Not all water use is created equal. For some uses, a great deal of water is returned to the source. For others very little, if any, water is returned. A recently published USGS report compares the consumptive water use of several sectors, including livestock production.

According to the report between 80 and 100% of water withdrawn for livestock use was not returned to the source. The data set used in this calculation was limited; however, the issue of water consumption by livestock and poultry operations is likely to receive continued attention.

A fact sheet is available at <http://pubs.usgs.gov/fs/2008/3032/>. The full report is at: <http://water.usgs.gov/wateravailability/greatlakes>

## Water Quality Credit Trading Is the Focus of August Workshop

Farmers, ag advisors, or wastewater utilities interested in developing or participating in water quality credit trading, should mark their calendars for a workshop on August 19-20, 2008. This intensive training will take place in Troy, Ohio. The program includes expert speakers, interactive activities, and case studies. Contact the Conservation Technology Innovation Center at 765-494-9555 for more details.

## Great Lakes Manure Handling Expo

“The Economics of Recycling” is the theme of this year’s Great Lakes Manure Handling Expo. The program will include field and educational demonstrations, speakers, and vendor displays. It will be held on July 9, 2008 in London, Ohio. For more information visit: <http://oema.osu.edu> or contact Jon Rausch at (614) 292-4504.

### Spotlight On...

## Want to Reduce Ammonia Emissions From Layers? Feed Them Fiber!

*This article is a summary of two presentations made at the “Mitigating Air Emissions from Animal Feeding Operations”, conference held in May, 2008 in DesMoines, Iowa.*

Ammonia emissions from poultry manure are a concern for bird health and are also becoming more prominent as an environmental issue. The addition of a small amount of fibrous feed ingredients to lower the amount of ammonia emitted in the layer hen manure was examined in two research trials. Roberts et al. conducted a laboratory-scale study in which 128 cages of hens were assigned to one of four diets:

- Control
- Dried distillers grains with solubles, (10%)
- Wheat middlings (7.3%)
- Soybean hulls (4.8%)

Compared to the control, the diet with distillers grains resulted in a 41% reduction in ammonia emission from laying hen manure. The wheat mids and soy hulls resulted in decreases of 38% and 27%, respectively.

A second presentation (Hale), compared a 10% distillers grains diet to a standard ration in a production

setting. Manure from the distillers ration emitted an average of 17% less ammonia during the six-week collection period.

The reasons for this reduction are unknown. Researchers have theorized that fiber increases the energy available to bacteria in the lower digestive tract. This results in more bacterial protein and less uric acid (which converts readily to ammonia). The diet change may also result in manure with a lower pH. This results in relatively more ammonium (NH<sub>4</sub><sup>+</sup>), which is less volatile than ammonia.

Using distillers grains requires attention to diet formulation to ensure amino acid requirements are met. The presence of Virginiamycin (banned for use in layer hens) must also be monitored. Higher-fiber diets may also not be suitable for all phases of production.



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.