



PigTales

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Closed-Loop Swine Waste Management Technology

The North Carolina swine industry has needed more efficient waste management systems for many years. Donald Lloyd created Environmental Technologies LLC to research and develop new technologies for swine waste management. With the financial help of a grant, Lloyd was able to create the Closed-Loop Swine Management Technology.

Chuck Stokes of Little Creek Farms hosted a field day for local and state officials as well as neighbors and other farmers to demonstrate the system on May 20, 2005. The system is a low-cost and environmentally-sound alternative to the traditional lagoon system currently in place.

With the closed-loop system, solids are removed from the wastewater and mixed with high-carbon cotton plant remnants to make compost, while the water is sanitized to create potable water, which is reused in farm operations.

This reduces water usage by approximately 60 percent, eliminates odors and pathogens and costs up to 40 percent less to operate than lagoons. The new technology must now pass state-mandated evaluations, expected to be complete in August.

Federal Funding Announced

The Renewable Energy Systems and Energy Efficiency Improvements loan and grant program was established by Section 9006 of the 2002 Farm Bill. It was created to increase the establishment of renewable and energy efficient systems used by agricultural producers and small rural businesses.

On March 28, 2005, Agriculture Secretary Mike Johanns announced that \$22.8 million would be available to support these systems. So far nearly \$45 million has been invested in 32 states under the Bush Administration.

The \$22.8 million will be released in two stages. Half will be made available immediately for competitive grants. The guidelines for renewable energy grants will require funds requested ranging from \$2,500-\$500,000 and for energy efficiency grants \$2,500-\$250,000.

In the second stage the remaining half will be used for renewable energy and energy efficiency guaranteed loans. Since this program is for fiscal year 2005, any funds not used by August 31, 2005 will revert to the grant program.

For more information visit:
<http://www.rurdev.usda.gov/rbs/farmbill/>.



If you are interested in using the flow meter for calibration of your irrigation equipment, please contact Jamie Ragan at (919) 715-6519 or jamie.ragan@ncmail.net.



Reminder:

Only one request for grant reimbursement has been received. Pilot participants are eligible to receive up to \$3,000 to purchase equipment or implement a BMP to enhance their farm's EMS. If you have any questions, please contact Jamie Ragan at (919) 715-6519.

Cost Share Program

To address agriculture's contribution to North Carolina's nonpoint source water pollution problem, voluntary participation is encouraged. Financial incentives are used to increase participation and are provided through North Carolina's Agriculture Cost Share Program.



The N.C. Division of Soil and Water Conservation initiated the program in 1983 where nonpoint source problems were addressed in Jordan Lake, Falls Lake and the Chowan River covering 16 counties. With the program's success it was extended to the entire state. The Cost Share program is supervised by the Soil and Water Conservation Commission and managed at the local level by elected and appointed officials.

Farmers in the program install best management practices and are paid 75 percent of the predetermined average cost of the installation. Farmers pay the remaining 25 percent. Applicants may receive up to \$75,000 per year.

The local districts are provided 50:50 matching funds for hired personnel to plan and install the BMPs. Cost Share funds are allocated to district boards and the boards review applications to fund BMPs of local landowners. Priority is given to the most cost effective water quality protection measures and all BMPs are subject to spot checks by division staff and district personnel. If the BMPs are not maintained, farmers may be subject to reimburse Cost Share funds.

BMPs must have a purpose such as sediment/nutrient delivery reduction from fields (ex. riparian buffer); erosion reduction/nutrient loss reduction in fields (ex. long term no-till); agricultural chemical pollution prevention (ex. agri-chemical handling facility); proper animal waste management (ex. waste/animal compost); or stream protection from animals (ex. livestock exclusion system). For a full list of approved BMPs and their expected life, please visit: <http://www.enr.state.nc.us/dswc/pages/BMP's.html>.

Ethanol Provides Alternatives

Ethanol, made by a process of fermentation and distilling of sugar and starch crops, is a high-performance alternative to gasoline. Ethanol and ethanol blends are cleaner and more environmentally sound motor fuel alternatives. Currently more than 15 billion gallons of ethanol-blended petrol are used in the United States, representing 12 percent of all fuel sales. The most common is a 10 percent blend; however, 85 and 95 percent blends are being tested.

Fuels with a higher octane rating are preferred because they are slower to burn, increasing the performance and life of an engine. Ethanol is a high-octane fuel and is used to increase the octane rating of gasoline. It also helps to reduce emissions by adding oxygen to the fuel, allowing it to burn more completely. With its pollution reducing ability along with its high yield production rate, ethanol is an excellent alternative to gasoline for personal automobiles as well as farm and heavy equipment.

According to the USDA, ethanol production adds 25-50 cents to the value of a bushel of corn, and ethanol production is the third largest use of U.S. grown corn. From one bushel of corn, a modern dry-mill ethanol plant will produce 2.8 gallons of ethanol and 17 pounds of distillers grain. While all of rural America will benefit from producing ethanol, many farmers are buying into ethanol production cooperatives to receive the added benefits.



Some states in the Midwest are currently allowing only ethanol-blended fuels to be sold. In order for North Carolina to implement a 10 percent ethanol requirement corn production would have to increase by 130 percent and total farm acreage would have to increase by 10 percent in order to keep current land use priorities.

To read more about the many benefits ethanol provides visit <http://journeytoforever.org/ethanol.html>.

EPA Compliance Agreement

In order to determine whether certain concentrated animal feeding operations are in compliance with federal clean-air regulations and to collect data for future use in establishing air quality regulations the U.S. Environmental Protection Agency established an voluntary agreement to monitor emissions of CAFOs.

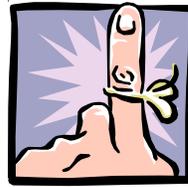
According to the agreement of the recent EPA proposal, participating CAFO operators could pay a civil penalty from \$200 to \$100,000 and contribute \$2,500 to a fund to pay for the two-year emissions monitoring program. However, EPA has committed not to sue for alleged past violations, unless there is "imminent and substantial danger to public health or the environment." To read and apply for the agreement, please visit www.epa.gov/compliance/resources/agreements/caa/cafo-agr-050121.pdf.

Pork Checkoff Educational CDs

N.C. DPPEA has received educational CDs from Pork Checkoff for pork producers and employees. The CDs are available for loan. Please contact Jamie at (919) 715-6519 or jamie.ragan@ncmail.net for information.

The CD modules include:

- Farrowing Management
- Effective Handling of Pigs
- On Farm Euthanasia of Swine
- Grower-Finisher Management
- Breeding-Gestation Management
- Pig Husbandry and Stockmanship
- Pork Quality Assurance
- Segregated Early Weaning and Nursery Management
- Swine Welfare Assurance Program
- Youth Pork Quality Assurance
- Biosecurity
- Troubleshooting Guide
- Effective Handling of Pigs-Spanish
- Farrowing Management-Spanish
- Nursery Management
- Ventilation



Waste Management Reminder

Farmers must complete irrigation calibrations and lagoon sludge surveys. For those farmers with a NPDES permit, these tasks must be performed each year, and the information must be reported to the N.C. Division of Water Quality with your annual certification form due March 1 every year. For those with a general permit, these tasks must be performed before October 2006.

You can receive assistance with your calibration and sludge survey from your local extension agent or Soil and Water/NRCS representative. In addition, classes, equipment rental and technical assistance may be offered by these sources. For more information contact your local extension office or Soil and Water office.

Forms can be obtained from your local extension office or at the following website: <http://h2o.enr.state.nc.us/ndceu/Animal.htm>.

Farmer-to-Farmer Meeting

Tommy Porter of Cabarrus County and N.C. DPPEA's Jamie Ragan attended a Farmer-to-Farmer meeting in Sacramento, Calif. on June 8-10, 2005. The purpose of this meeting was to:

"explore the value of organizing a farmer-to-farmer network to improve communication and technology exchange on agricultural environmental management systems (AgEMS) and how they can be used to address local, national and international environmental management needs."

Two other participants represented North Carolina at the meeting - Chuck Stokes of Green County and Murphy-Brown's Don Butler.

