

BIOSOLIDS NEWS

News and Information from the Virginia Biosolids Council • August 2012

September 10 at Virginia Beach

Biosolids workshop to highlight new tech

Determining best management options for biosolids is both time-consuming and expensive. The development of innovative technologies and processes to manage this valuable byproduct of the water recycling process is occurring at a rapid pace.

To provide some additional perspective and information on current research and the development and use of pioneering technology, a half-day workshop will be held in conjunction with the annual Virginia Water Environment Association conference at the Virginia Beach Convention Center.

The workshop is sponsored by the Virginia Biosolids Council and the Mid-Atlantic Biosolids Association. The workshop was created for wastewater professionals, county officials, state regulators and others interested in advanced treatment technologies. The program will be held on September 10—the first morning of the Water Jam.

Registration to the conference can be done through the VWEA website at www.vwea.org. Registration can be made, if desired, just for the biosolids workshop on September 10 for a cost of \$50.

The program will begin at 8:30 a.m. at the Virginia Beach Convention Center.

Speakers include Chris Peot, Biosolids Manager for DC Water, who will speak on a paradigm shift in the manner DC Water manages its biosolids. Ersin Kasirga of Atkins will follow that with a review of the odor challenges and characteristics of DC Water's new Cambi process, which is currently under construction.

Other topics include: Research on barriers to utilizing biogas for renewable energy; implementation of

SUSTAINABLE BIOSOLIDS TECHNOLOGIES WORKSHOP



microwave technology at a utility in Alabama; the application of solar drying technology in Delaware; and the impact of new federal regulations on the use of incinerators.

For Virginia certified biosolids land applicators who attend the workshop, the Virginia Department of Environmental Quality (DEQ) will offer two Continuing Education credit hours for the first session (8:30-10:15 am) and one credit hour for the second session (10:30-noon), for a total of three credit hours. Sign-up sheets for credit will be provided at the workshop.

Sustainable Biosolids Technologies Workshop

Virginia Beach, VA – September 10, 2012

SESSION 1 8:30 am-10:15 am

Paradigm Shift in Biosolids Management At DC Water
Chris Peot – Manager Biosolids Management, DC Water

Odor Characteristics of Cambi Process
Ersin Kasirga – Project Director, Water Infrastructure, Atkins

Barriers to Biogas Use for Renewable Energy
John Willis – Brown and Caldwell

SESSION 2 10:30 am-noon

Impact and Analysis of New Federal Regulations on Incinerator Management
Jeff Layne – Plant Manager, Chesapeake-Elizabeth Treatment Plant

Innovations in Thermal Conversion
William Toffey – Principal, Effluent Synergies

Microwave Application Benefits
Mike Burch – Burch BioWave, Inc.

Application of Solar Drying
Alex Kraemer – Parkson Corp.

Biosolids support Dinwiddie farm's conversion from tobacco to hay

When Lloyd 'Meade' Harrison looks over the fields of his farm today he sees all grass, much different than just a few short years ago when tobacco plants would have dotted those same fields on a cloudy June day. His farm, which has survived as a working family farm since about 1835, occupies approximately 1,000 acres in the small community of McKenney in Dinwiddie County.

The significance of Harrison's farm in the short history of biosolids in Virginia is that his was the first farm in Dinwiddie County where biosolids were beneficially applied, back in 1997.

"To this day I am in awe of [biosolids'] ability to grow grass...I have all the hay that I can use for my cattle."

This was about the time, he said, that he retired from his position with the Virginia Cooperative Extension program where he worked as a tobacco specialist. It was during one of several research discussions he attended as part of his job that he learned about biosolids and their benefits to soil and crops. When he retired, he reached out to Recyc Systems to see if he could get some biosolids for his farm. Following permitting, he applied the biosolids to a pasture.

Today, virtually all of the fields on his farm receive biosolids to support the growth and sustainability of his pastures.

Virginia Tech to conduct small grains research project

In Virginia, in addition to pastures, small grain crops offer beneficial alternatives for biosolids application during the fall and winter. Small grains typically receive just a small fraction of the Nitrogen (N) requirement prior to planting. Application of biosolids to the soil immediately prior to small grain planting in the fall offers solid potential. However, not much is known about the N mineralization rate of biosolids, or nitrate leaching.

Virginia Tech has been asked to develop and then conduct a research program over a two-year period to determine the optimum pre-plant biosolids Plant Available Nitrogen (PAN) rate and whether plants can be used to optimize supplemental N for biosolids-fertilized grain crops without nitrate leaching concerns.



Mr. Harrison stands in front of the Episcopal Church in McKenney, which is located on his farm and donated to the church by his family in 1894.

"To this day I am in awe of its ability to grow grass," Harrison said. "It is good material since I have all the hay that I can use for my cattle."

Rather than growing tobacco, Harrison's farm today is strictly used to grow hay in pastures for more than 175 brood cows. His son, who operates a farm immediately adjacent to Mr. Harrison's, also grows hay for approximately 130 brood cows, and also beneficially applies biosolids.

"My family has worked this farm for a long time. I've found that using biosolids helps my soil, and I don't have to spend money unnecessarily on fertilizer," he said. "It's a good material."

The research will be conducted on farms permitted for biosolids application in Virginia's coastal plain that have soil series representative of commonly cultivated small grains land. Fall application rates of 50% and 100% of crop needs will be studied.

The research project will begin in August 2012.

For more information, go to www.virginiabiosolids.com