

BIOSOLIDS NEWS

News and Information from the Virginia Biosolids Council • August 2006

Answers to your questions about biosolids

There is certainly plenty of “information” in the media and the Internet these days about biosolids. Unfortunately, too much of this information is often based on opinions, suppositions and claims that are not supported by actual experience or scientific research. While the Virginia Biosolids Council is certainly not an impartial observer in this debate, we believe that the facts support the responsible use of biosolids as a fertilizer and soil amendment for Virginia’s farms and forests.

To cut through some of the ‘noise’ that typically results from this media attention, the Council has posted a series of Questions & Answers and scientific research papers on its website at www.virginiabiosolids.com.

The following Q&A is a sample of the information that is available:

Why do municipalities land apply biosolids?

A municipality will choose land application when it provides the best option for the environment, public health and the community. Biosolids recycle valuable nutrients to farms and forestlands, which help sustain family farms and conserve green space. Additionally, biosolids recycling is the most cost-effective management option for municipalities.

What other options do municipalities have for managing biosolids?

Other options include disposal in sludge incinerators and co-disposal with trash in landfills. Municipalities also have choices in the type of processes used to prepare biosolids for land application—like composting and drying. Biosolids processing and disposal is a major portion of a wastewater utility’s costs, approximately 20-30 percent of total operating cost, so treatment options are carefully examined.

Who pays for the cost of managing biosolids?

The treatment of wastewater and the production of biosolids are services provided by local government, which are funded by local citizens through user fees and taxes. The cost of the state’s biosolids program is paid by a combination of taxpayer funding and permit fees paid by land application companies. These fees, of course, are ultimately paid by the taxpayers and ratepayers who are served by the wastewater treatment facilities.

Do we really know what’s in biosolids?

Environmental scientists know a lot about what’s in biosolids and are learning more each year. EPA conducted extensive risk analysis of the possible pollutants in biosolids when it established safe limits for land application of biosolids.

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Biosolids Monitor Training

Mark Prentice (l.), manager of the Henrico County Water Reclamation Facility, explains the wastewater treatment process to (l. to r.) Woodie Walker and Kim Hummel of Isle of Wight County and Howard Gary, Culpeper County, during a recent training session for biosolids monitors. The training was sponsored by the Virginia Department of Health.



The Virginia Biosolids Council supports the land application of biosolids in Virginia through information and education on the beneficial use and safety of biosolids. The Council is supported by municipal wastewater treatment plants, land application companies and biosolids users, and is available as a resource to those who need information about the recycling of biosolids.

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Under federal and state regulations, each wastewater treatment plant must test the flow entering the wastewater plant to ensure it meets strict pretreatment limits. Biosolids resulting from wastewater treatment must also be tested to meet EPA standards. Biosolids do contain trace amounts of pollutants which, if they occurred in high concentrations, would be considered a human or environmental danger. But this is true also for compounds found in our water, air and food. It's important for people to remember that the presence of these compounds in very minute quantities does not represent a risk to human health or the environment.

How do biosolids relate to the Chesapeake Bay?

Urban wastewater plants help protect the Bay by reclaiming the nutrients from sewage and preventing their discharge into our rivers and streams, many of which ultimately flow into the Bay. When the nutrients in biosolids—primarily nitrogen and phosphorus—are applied to farmland, they replace the nutrients from the commercial fertilizer farmers would otherwise use. When managed and applied correctly, using best management practices, biosolids nutrients pose no more risk to the environment than the other types of nutrients that farmers use. Moreover, the use of biosolids on farmland closes a recycling loop begun when farm products take up nutrients from the soil and are shipped to urban areas.

Are there advantages to using biosolids rather than chemical fertilizers?

There are pros and cons to all forms of plant nutrients used by farmers. The key is how each of these forms is managed. Farmers can take advantage of the slow-release of biosolids nutrients during the growing season—in step with crop requirements. Additionally, the land application of biosolids is subject to more regulatory oversight than the use of commercial fertilizer.

What are the differences between the land application of animal manure and biosolids?

Most animal manures and biosolids are applied to Virginia farmland using nutrient management plans to minimize nutrient loss to the environment. Again, each have their advantages and disadvantages and proper management is critical. Typically, the application of animal manures is not subject to the same degree of regulatory oversight, such as restrictive buffers for streams and wetlands, as are biosolids.

Appomattox, Surry counties pass ordinances

Appomattox and Surry counties have become the latest Virginia jurisdictions to approve local biosolids ordinances, which will enable them to monitor the application of biosolids within their boundaries.

Both counties based their ordinances on the Virginia Association of Counties (VACo) Model Biosolids Ordinance. Both also worked in consultation with the Virginia Department of Health, which approved the ordinances and will reimburse the counties for the costs of monitoring and testing.

The county ordinances will enable their local monitors to test and monitor the land application of biosolids on farmland and forestland to ensure compliance with applicable laws and regulations and to handle complaints and questions from county residents.

Counties encouraged to enact biosolids ordinances and to conduct monitoring

"VACo's Model Biosolids Ordinance provides an excellent mechanism for Virginia localities to ensure that their biosolids applicators take extra care to abide by the Biosolids Use Regulations," according to Becky Draper, P.E., Director of Public Works/County Engineer for Hanover County.

Draper, who also represents the Virginia Association of Counties (VACo) on the Biosolids Use Regulations Advisory Committee (BURAC), said: "Having an ordinance in place enables localities to obtain reimbursement from the Virginia Department of Health for biosolids monitoring and testing, but does not obligate the locality to establish a formal program.

"Biosolids applicators are assessed a fee based on each ton applied in each county with a VDH-approved ordinance. Funds have been accumulating at VDH for some time and are more than adequate to support the reimbursement program.

"I see no down side to adopting an ordinance and implementing a monitoring program. I am sure that local constituents would view this as proactive environmental protection, funded completely by the biosolids generators and applicators.



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