

BIOSOLIDS NEWS

Information for Virginia Farmers from the Virginia Biosolids Council • October 2005

One farm family's experience

“We couldn't survive without biosolids”



Glen and Melissa Witt and son, Joel.

Glen Witt and his father manage more than 1,000 acres in Bedford County for the production of beef cattle and timber. “We’ve been applying biosolids on our pastures and hay fields for 14 years,” explains Witt. “We couldn’t survive without biosolids.”

Witt says that people who don’t earn their living from farming don’t seem to understand that the land application of biosolids is a safe and effective way to help preserve Virginia’s family farms and the green space that we all value.

“Those fields of corn, soybeans, hay and stands of timber that people see on their drive through the country aren’t state parks,” he says. “They are businesses that must make a profit—or at least break even—to survive.”

Witt says his experience with biosolids is typical of many of his farmer neighbors who each year must make substantial dollar investments for seed, feed, fertilizer, labor and equipment, along with their own blood, sweat

and tears to preserve a way of life that they love.

“Our farm is much more productive because of biosolids,” explains Witt. “We get double the rolls of hay from our biosolids fields than we do from fields that receive chemical fertilizer. As far as I’m concerned, biosolids are not just a cheap substitute for chemical fertilizer; they enrich the soil with organic material and improve resistance to drought.”

Witt recalls that a few years ago he spent about \$6,000 on a chemical fertilizer application for a hay field. It didn’t rain for weeks,” he says, “with the result that the chemical nitrogen was useless and wasted my \$6,000 investment. The natural nitrogen in biosolids doesn’t burn during dry spells and it produces lush growth as soon as it does rain.”

And what about the health and safety claims of biosolids opponents? “My family lives right in the middle of a 30-acre hayfield that has received biosolids for years,” says Witt. “We are all healthy and happy, and so are our cattle. According to the opponents of biosolids, we should all be dead by now.”

Witt says that when people attack biosolids out of ignorance and emotion, they are attacking farmers. “I’m sure they don’t mean us any harm,” he says, “but they are doing harm just the same. They need to calm down, listen the facts about biosolids and have some regard for the people who help put the food on their table.”



The Virginia Biosolids Council (VBC) supports the land application of biosolids in Virginia through information and education on the beneficial use and safety of biosolids. The VBC was created by 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.

Buffers provide additional level of protection

Every land application of biosolids in Virginia must meet the nutrient needs of the soil and the proposed crop. This reduces the potential for excess nitrogen in the soil that could leach into groundwater and streams.

Another important and regulated element of the land application process is the use of buffers—minimum distances between the application site and streams, wells, dwellings, roads and property lines.

In addition to providing real protection for people and the environment, buffers help reassure the public that biosolids are applied in accordance with carefully-developed and regulated procedures.

These buffers, defined by the Virginia Department of Health (VDH), improve aesthetics of the application and control public exposure to biosolids application sites. Buffers do the following:

- Keep biosolids applications on the permitted site
- Control runoff from the applied area
- Protect surface water and other non-targeted areas
- Reduce off-site odors

The minimum buffers required by VDH are listed in the table below. Surface and groundwater buffers are designed according to technical considerations. Numerous studies have demonstrated that biosolids applied using EPA and Virginia standards pose no risk to the Commonwealth's water.



Light green areas show the buffers that did not receive biosolids.

Property and dwelling buffers may be increased or decreased, depending on specific site considerations. For example, farmers can ask neighbors to sign a waiver allowing buffer distances to be reduced next to property lines and dwellings. Conversely, buffers could be increased if land application could disrupt activities at an adjacent school or church or if application could cause significant discomfort to an individual neighbor.

Common sense and courtesy are the preferred approach in establishing property and dwelling buffers, with applicators, farmers and neighbors encouraged to reach agreement without formal intervention by VDH.

Permitted landowners should expect buffers to be clearly flagged by the land applicator and the boundaries strictly observed by application personnel.

Minimum Distances (feet) to Land Application Area

Adjacent Feature	Surface Application (1)	Incorporation	Winter (2)
Occupied dwellings	200	200	200
Water supply wells or springs	100	100	100
Property Lines	100	50	100
Perennial streams & other surface water	50	35	100
Intermittent streams/drainage ditches	25	25	50
All improved roadways	10	5	10
Rock outcrops & sinkholes	25	25	25
Agricultural drainage ditches with slopes equal or less than 2%	10	5	10

(1) Not plowed or disced to incorporate within 48 hours.

(2) Application occurs on average site slope greater than 7.0% during the time between November 16 of one year and March 15 of the following year.

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environmental stewardship
and biosolids recycling.*