



COMMONWEALTH of VIRGINIA
Office of the Governor

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Secretary of Health and Human Resources

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October 19, 2004

Dr. Lynton S. Land
125 Airstrip Lane
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Ophelia, Virginia 22530

Dear Dr. Land:

Thank you for your recent letter concerning nutrient management provisions for biosolids use in Northumberland County and the related phosphorus restrictions contained in the Biosolids Use Regulations (12 VAC 5-585-550A).

Section 550 of the Biosolids Use Regulations (Regulations) concerns the nutrient content of biosolids. The nutrient content is the primary agronomic value for farmers. This section of the Regulations states:

"The applied nitrogen and phosphorous content shall be limited to amounts established to support crop growth. Nitrate Nitrogen developed as a result of biosolids application shall be controlled in order not to accumulate in groundwater as a pollutant. Thus, the amount of biosolids applied to land shall be restricted based on the nitrogen requirements of the crop grown on the amended site immediately following application (agronomic rate). In addition, soil erosion and site runoff should not result in phosphorous pollution of surface waters as a result of surface application of biosolids. The results of approved groundwater monitoring programs may be utilized to verify frequent application rates."

I understand that your concern is that the Virginia Department of Health (VDH) is not restricting the application of biosolids to the phosphorus amount needed to support crop growth. Unfortunately, the science of the available phosphorus in biosolids for plant uptake in different soil and site conditions is not as well developed and understood as it is for nitrogen. For nitrogen, VDH has established standards in the Regulations, based on current scientific evidence, to restrict the application of biosolids relative to the plant-available-nitrogen content of biosolids. Applied phosphorus should be limited to the amount which if exceeded on a specific site, would result in a violation of water quality standards. Research at a number of universities continues to study phosphorus availability so that a science based numerical standard or index can be supported as a regulation. The Regulations, in Section 610, do address the maximum application rates for phosphorus as follows:

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"... Submission of additional information may be requested for any proposed biosolids use sites exhibiting very high soil test phosphorus of 55 or more parts per million parts phosphorus (Mehlich 1 analytical test procedure or equivalent). The Virginia Department of Conservation and Recreation may require the preparation of a complete nutrient management plan or a soil conservation plan, as appropriate, if such sites exhibit a significant erosion potential based on site soils and topography. The division will request such information from the Virginia Department of Conservation and Recreation and the required plans shall be completed prior to any biosolids use operations on that site."

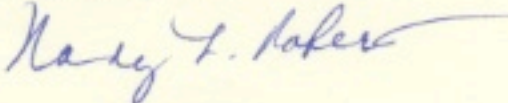
Please be assured that the current requirements in the Regulations relative to phosphorus are being enforced. Specifically, VDH is using the results of phosphorus content in the soil prior to the application of biosolids as one determining criterion for the preparation of a complete nutrient management plan. For sites with a very high soil-test phosphorus, above 55 ppm (when converted to the Mehlich 1 standard), a nutrient management plan must be completed and submitted by the land applier if requested by the Department of Conservation and Recreation.

VDH will continue to rely on available scientific evidence to provide a basis for establishing numerical standards or indices for phosphorus, as has been done for nitrogen, in order to develop amendments to the Regulations. In this context, VDH is working with the Department of Conservation and Recreation on a nutrient management technical advisory committee, of which you are a member. The Department of Environmental Quality is participating as well.

The VDH policies for permitting the land application of biosolids result from due consideration of over 30 years of research and field data concerning those practices. That experience has demonstrated that land application of biosolids conducted in accordance with the Regulations is safe and beneficial.

Should you desire further information, please contact C. M. Sawyer, Director, Division of Wastewater Engineering, VDH, by telephone at (804) 864-7463, or by FAX at (804) 864-7475. The address is 109 Governor Street, Fifth Floor, Richmond, Virginia 23219

Very truly yours,


for Jane H. Woods

JHW/cms

C: Robert B. Stroube, M.D., M.P.H.