



# CHESAPEAKE BAY FOUNDATION

*Environmental Protection and Restoration  
Environmental Education*

December 9, 2005

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Dr. Lynton S. Land  
P.O. Box 539  
Ophelia, VA 22530

Dear Dr. Land,

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Thank you for your recent letter to the Chesapeake Bay Foundation (CBF) regarding a statement in "Vital Signs: Assessing the State of Chesapeake Bay Agriculture in 2005". We appreciate your sharing your concerns with us -- you have raised some issues that we have debated internally and with university researchers, farmers, and other agricultural experts that helped us produce our "Vital Signs" report.

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There is no doubt that the intensification of animal production in the Chesapeake Bay watershed has resulted in water quality problems related to our inability to appropriately manage the excess manure. The issue is a complex one and, we believe, the solution is not as simple as eliminating land application of manure in the Bay watershed.

Your letter expressed concern about the land application of both sewage sludge and animal manure. It is important to note that there are distinct differences between these two products, from disposal/transport subsidies to actual makeup (e.g., sewage sludge often contains higher concentrations of chemical contaminants). Our comments are focused on the problems and solutions of excess animal manure in the Bay watershed.

Please be advised that CBF is well aware of the water quality impacts associated with the use of animal manure in the Chesapeake Bay watershed. In July 2004 we released a report, entitled "Manure's Impact on Rivers, Streams and the Chesapeake Bay" (enclosed). The report highlights that excess manure, particularly in certain "hotspot" areas of the watershed, is the largest source of nitrogen and phosphorus pollution, contributing to water quality problems in the Bay and its tributaries. In the report, we not only describe the potential drawbacks of using manure as fertilizer (pages 5-6), but also note the benefits, such as enhanced soil quality through increased organic content. In addition, because manure is often used close to where it is produced, transportation costs and needs are minimized.

As opposed to advocating for a total ban on the use of animal manure (a position that would bring with it a suite of additional environmental impacts and unnecessary costs), we have supported several other solutions to the excess manure problem, including: 1) using feed management to reduce manure nutrients in poultry, swine, and dairy cows; 2) instituting safeguards to land application such as incorporating manure into soil to reduce ammonia losses to the air, winter cover crops, and riparian buffers; and 3) finding alternate uses for manure, including pelletization of poultry litter, waste to

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energy projects, and composting. Collectively, these solutions will substantially reduce nitrogen and phosphorus pollution from agriculture. We are actively working on policies and legislation at the state and federal levels to effect these changes.

An underlying assumption in our consideration and deliberations is the need for proper implementation of nutrient management plans. We understand the frustration you note with what appears to be ineffective implementation of nutrient management practices in Virginia, and I would be happy to discuss the issue further with you if you so desire. However, the problem is not with the use of manure, but rather with the implementation and oversight of nutrient management planning.

We recognize that in many areas of the Bay watershed, land application of manure will be precluded, based on the amount of phosphorus available compared to what the crops need. In fact, the USDA's Economic Research Service estimates there are 1.5 million tons of excess manure in the Bay watershed. A complete prohibition on land application would yield a tenfold increase in the amount of manure for which we would need to transport, dispose, or find alternative uses. In addition, a ban would mean that farmers would rely on importing commercial fertilizers, substantially increasing transportation (and the associated air pollution) and the operational costs of farming. Many farms in the Bay states are small, with limited profit margins. Increased costs will make farming economically less viable, increasing the threat of development. Finally, we note that farming is inherently a "leaky" system--even with the substitution of chemical fertilizer for manure, there will still be losses of phosphorus and nitrogen to the environment via groundwater, surface water runoff, and soil erosion.

I hope this letter has provided some insight and justification for our position on the use of animal manure in the Bay watershed. I can assure you that we reached this conclusion because we believe it is what is best for the Chesapeake Bay. Thank you for your interest in our work. If you have questions or comments, please contact me at 804-780-1392.

Sincerely,



Jeff Corbin  
Virginia Deputy Director/Senior Scientist  
Chesapeake Bay Foundation

Enclosure

cc: Jennifer B. Horton, Chairman of the Board, CBF  
The Honorable Mark R. Warner, Governor of Virginia  
The Honorable Timothy M. Kaine, Governor-Elect of Virginia  
Will Baker, President, CBF