UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Chesapeake Bay Program Office
410 SEVERN AVENUE
ANNAPOLIS, MARYLAND 21403

January 25, 2005

Dr. Lynton S. Land
125 Airstrip Lane
PO Box 539
Ophelia, VA 22530

Dear Dr. Land:

Thank you for your letter concerning the potential for excessive application of nutrients within Virginia and the implications that would have on Chesapeake Bay water quality. As you know, nutrient inputs are a preeminent concern to all of us in the Bay Program.

We know that the combination of purchased commercial fertilizer and manure production can lead to extreme excesses in nutrient application on crop and hay fields, if applications are not based on crop need. When excess nutrients are applied to cropfields, they will either percolate below the root zone or move off the field during significant rainfall events. Although leaching does not immediately threaten Basin tidal waters, it does impact groundwater nitrogen concentrations and eventually finds its way into surface water. The recent wet years have certainly highlighted these problems.

To address over-application, Virginia has worked cooperatively with other Chesapeake Bay Program partners in Pennsylvania, West Virginia, Delaware, New York and Maryland to define and implement nutrient management plans. These plans take into account the crop(s) grown, expected yield, soil conditions, nutrient source (commercial fertilizer, animal manure, bio-solids), as well as residual nitrogen and phosphorus. Mineralization of animal manure nitrogen is taken into account. Although nitrogen availability is based on region-specific mineralization rates, available phosphorus is determined through field-specific soil and manure testing. The result is a balanced nutrient management plan addressing nitrogen and phosphorus application rates, and the timing of those applications. Nutrient management plans are developed on a three-year cycle. Changes in crop rotation, nutrient sources, planting method or seedbed preparation may trigger an earlier reevaluation.

The Bay Program partners encourage use of manure as a nutrient source. Although imperfect, on-farm manure use does constitute a renewable source of nutrients for the producer. This helps reduce input costs, minimizes reliance on an external source and price, reduces the volume of excess manure, and minimizes the issues and costs associated with safe off-farm disposal. As nitrogen prices are closely tied to natural gas prices, some estimate that 2005 prices

for a ton of nitrogen could go up 40 percent. Phosphorus is a finite resource whose price could climb as that source becomes scarce. Although this is not an immediate threat, encouraging a production model that is based on inputs that could become scarce or expensive (not to mention the environmental impacts of the mining operation), is counter to long-term Chesapeake Bay Program objectives of a sustainable, diverse and environmentally-friendly agricultural sector.

It is certainly right for you to point out the potential dangers associated with manure use, such as antibiotics and hormones, as well as the issues posed by long-term land application. Chesapeake Bay Program partners are concerned about these issues also. For this reason, the partners have sponsored several workshops and state-of-the science seminars to insure the recommendations they make and the actions they support are both agriculture-friendly and environmentally sound. In December, the Program held an "agricultural summit meeting" focused on manure management issues, which resulted in a consensus on several important objectives. I am happy to be able to give you a copy of the Directive adopted on January 10 by the Executive Council (enclosed), which incorporates the objectives and initiates an action planning process.

We appreciate very much your concern about pollution of the Chesapeake Bay, and the points you have made about land application of animal wastes. If you would like to have a copy of the summit meeting report or more detailed information about our plans for implementing the new Directive, please contact Russ Mader in our office (1 800 YOUR BAY, extension 752).

Sincerely yours,

Rebecca Hanmer

Rebecca W. Hanmer
Director

Enclosure