



Title: Environmentally Sound Uses for Poultry Litter

Name: Doug Parker, Erik Lichtenberg and Lori Lynch **Email:** dparker@arec.umd.edu

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Theme: Animal Waste Management

Situation: There is increasing concern that poultry litter on the Delmarva Peninsula has been causing nutrient pollution to the Chesapeake Bay. Current poultry production on the Peninsula produces over 700,000 tons of poultry litter per year. Most of this poultry litter is currently used as a crop fertilizer. Poultry growers are worried that poultry litter use restrictions inherent in nutrient management planning will restrict poultry litter use on crop land, leading to a local excess of poultry litter. Growers are concerned that there will be few profitable alternatives for poultry litter use.

Objectives: This project looks at the economic potential of current and alternative uses for poultry litter.

Methods: Through literature review and in-person interviews the authors analyzed the economic potential of various poultry litter uses; including land application as a crop fertilizer, pelletizing, composting, cogeneration, forest fertilization, and electricity production. Results of the project are contained in a report to the state of Maryland through the Center for Agricultural and Natural Resource Policy (www.arec.umd.edu/PolicyCenter/).

Partnerships: Interviews for the project linked researchers and extension specialists at the University of Maryland with the Maryland Departments of Agriculture, Natural Resource and Environment, as well as with industry leaders in all of the alternative uses considered above.

Research: The project is primarily applied research in nature. Results from the study have been disseminated at agency briefings and public conference, workshops, and seminars.

Resources: Support for the project came from the state of Maryland and the Center for Agricultural and Natural Resource Policy.

Results: The highest value use of poultry litter is application to nearby cropland. The value ranking of other poultry litter uses, in order of declining value, is forest fertilization, pelletization, compost, co-generation, and electricity generation (the last being negative in value). Using data on the soil phosphorus status of Delmarva soils, we found that there is more than enough cropland on the Delmarva Peninsula to absorb all of the poultry litter generated when applied at recommended rates. The ability of alternative uses to absorb large quantities of poultry litter may be limited.



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