

# Poultry Litter Use and Transport Survey in Maryland and West Virginia

Alan Collins, Yoganand Budumuru, Serkan Catma  
 Agricultural and Resource Economics  
 West Virginia University



Doug Parker and Qing Li  
 Agricultural and Resource Economics  
 University of Maryland

## Introduction

Regional concentration of production in the poultry industry and concerns about litter management have resulted in a need to document markets for and movement of litter within and outside of production areas. Primary and secondary areas were identified based on percentage of poultry production.

## Objectives

- To document the use and movement of litter within one primary (Hardy) and one secondary production county (Pendleton) in West Virginia (WV) and in two primary (Wicomico and Somerset) and in two secondary production counties (Caroline and Queen Anne's) in Maryland (MD).
- To examine the interest in and willingness-to-pay for litter from farmers who have never used litter previously.

## Survey Methods

Mail surveys were developed by researchers at University of Maryland, Virginia Tech, and West Virginia University. Survey questions were targeted towards three groups of farmers: those who had never used poultry litter, those who have used litter in the past, and poultry growers. During late winter 2005, surveys were sent to 999 farmers in WV and 1,018 farmers in MD. Response rates of 58% in WV and 52% in MD were achieved. In WV, 75% of respondents were non-poultry growers and 25% of all respondents had never used litter. In MD, 62% of respondents were non-poultry growers and 36% of all respondents had never used litter.

## Conclusions

- In the primary poultry producing areas, the majority of farmers have used litter recently. Expanding the litter market beyond current users in these areas will be difficult.
- Most litter stays within its county of origin.
- Most growers practice best management practices with their litter management.
- Farmers located in secondary counties are willing to pay higher prices for litter than farmers in primary producing counties.

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Study Area in West Virginia



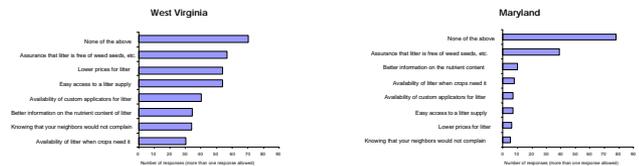
Study Area in Maryland



## Results

- Non-Poultry, Non-Users of Litter:** WV farmers expressed more interest in litter than MD farmers although many expressed no interest in ever using litter (Figure 1). Among interested farmers in secondary counties, average willingness to pay (WTP) was \$12 to \$15 per ton, higher than market prices for litter. Average WTP in primary production counties was lower (around \$6 per ton) and approximately the market price for litter.

Figure 1. Reasons Why Non Poultry Litter Users Would be Interested in Applying Litter to Land



- Non-Poultry, Users of Litter:** Most farmers had used litter recently (since 2000). On average, litter was applied to more acres per farm in MD (100) than in WV (50). Average application rates were slightly higher in secondary production counties, 1.7 (WV) and 2.1 (MD) tons per acre compared to primary production counties, 1.4 (WV) and 1.7 (MD) tons per acre. Most transactions were non-cash (60% in WV and 70% in MD), either given away or traded for services. When cash was paid, average price per ton was \$5 in WV and \$9 in MD.
- Poultry Growers:** Most transferred some or all of their litter off-farm (77% in MD and 74% in WV). The majority of transported litter stayed within the county of generation (75% in WV and 68% in MD). In WV, over half of broiler chicken growers (57%) did not own or rent sufficient acreage to land apply litter on their own farms. When litter was land applied, best management practices were more prevalent in MD than in WV (Figure 2).

Figure 2. Soil and litter management activities prior to and during last litter application

