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***If Methyl Bromide is Going Away, What Can I Do?***

*Saturday, January 12, 2008, 2:00 pm*

Moderator: Mr. Stuart McKinney

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**IMPACT ASSESSMENT OF PROPOSED EPA BUFFERS FOR  
CHLOROPICRIN**

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Introduction

Tift County, located in South Central Georgia, ranks forth in Georgia in terms of farm gate grower value and second in farm gate value derived from vegetable production. In 2006, the farm gate value of Tift County agriculture products was estimated to be over \$153 million. While this figure is impressive, even more significant to Tift County is the total economic impact that agricultural sales generate.

Many Tift County vegetable crops are dependent on soil fumigants for adequate control of weeds, insects and diseases. Since much of the counties vegetable production occurs on land that is adjacent or in close proximity to residential property, restrictive buffers would have a significant negative impact on the amount of land available for production and a negative impact on income derived from farm gate sales. Because of this, an assessment was conducted to demonstrate to EPA the economic impact of their proposed new rules.

Materials and Methods

**Field Boundaries:** In late 2006, a list of vegetable producers in Tift County was developed using USDA FSA records as well as UGA Extension grower lists. Growers were notified by mail and phone that a special “Field Location Mapping Day” would be held December 15, 2006 for the purpose of conducting an impact assessment of proposed EPA buffers. Growers voluntarily came in to identify fields planted in vegetables during the 2006 growing season. Field boundaries were identified by growers and digitized using ArcGIS Software with aerial imagery of Tift County as a base.

**Inhabited Structures:** A point feature GIS layer for all E-911 Address Locations in Tift County was obtained from the Tift County GIS Department (Tax Assessors Office.) The layer showed the approximate point location for each E-911 address (inhabited structure) in the county. These locations included homes, businesses, churches, and any other locations where people assemble. The Field Boundary and Inhabited Structure layers were then overlaid in the GIS software.

**Buffers:** Buffers were calculated at 150, 300, 600 and 1,200 feet distances around inhabited structures using the ArcGIS Buffer tool. Next, the area from each buffer that intersected a field boundary was clipped from the buffer regions using the ArcGIS Intersect Tool. The result was the area for each buffer distance that fell within a vegetable field. Area was calculated to determine the total acres impacted at each buffer distance.

Results and Discussion

The proposed buffers will negatively impact Tift County vegetable growers in terms of reducing available land and total farm gate sales. Buffers of 150 feet, 300 feet, 600 feet, 1,200 feet would reduce available land by 0.8%, 5.8%, 24.3%, and 60.6% respectively and subsequently reduce farm gate sales by \$0.5, \$3.5, \$14.8, and \$36.9 million dollars.

**Table 1: Effects of Proposed Buffers on Tift County Vegetable Production**

Buffer Size (feet)	Impacted Area (acres)	Percent of Total Acres	Impact on Farm Gate Value
150	43	0.88%	\$537,144
300	283	5.77%	\$3,520,049
600	1,194	24.34%	\$14,849,867
1,200	2,973	60.61%	\$36,978,687

Conclusions

This study shows that the proposed buffers will severely reduce the available land for vegetable production in Tift County, Georgia and subsequently reduce farm gate sales. The highest potential buffer examined in this study

(1,200 feet) could potentially eliminate over 60% of the counties vegetable production; costing the farmers \$36.9 million dollars and removing that income from the local economy. This accounts for 24% of the farm gate sales for all agricultural products in Tift County. This would diminish the economic viability of agriculture and accelerate the decline of agricultural land in Tift County. These factors must be taken into consideration as the buffer proposals are reviewed and implemented. Additional impact assessments may be needed to determine long term affects of proposed field buffer restrictions on land values and residential growth.