



College of Agriculture, Food and Natural Resources  
University of Missouri-Columbia  
Social Sciences Unit • <http://www.ssu.missouri.edu/>  
Agricultural Economics • Agricultural Education • Agricultural Journalism • Rural Sociology

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Community Policy Analysis Center  
215 Middlebush • Columbia, Missouri 65211  
Telephone (573) 884-9009 • Fax (573) 882-2504 • Website: [www.cpac.missouri.edu](http://www.cpac.missouri.edu)

To: Whom It May Concern,

From: Dr. Thomas Johnson, Frank Miller Professor of Agricultural Economics, University of Missouri

A handwritten signature in cursive script that reads "Thomas Johnson".

Date: October 10, 2008

It has come to my attention that a report I co-authored in 1999 entitled *The Impacts Of Animal Feeding Operations On Rural Land Values* has been reported as concluding that “an average vacant parcel within three miles of a CAFO in Missouri lost about 6.6% in value, but if a parcel with a house on it was within 1/10 mile of the CAFO, it lost 88% of its value!<sup>1</sup>” This summary misrepresents the findings of my report.

The first statement that “an average vacant parcel within three miles of a CAFO in Missouri lost about 6.6% in value” is contradicted in my report. My report specifically states on page 8, “Based on our regression analysis, the distance to a CAFO does have an effect on the value of nearby property if the property has a house on it.... It must be kept in mind that this loss occurs only to property with residential structures.” Figure 1 of my report shows the value of parcels without houses is not affected by distance to CAFOs.

The second statement that “if a parcel with a house on it was within 1/10 mile of the CAFO, it lost 88% of its value!” is a misrepresentation of the findings in my report. It commits several errors. First, it extrapolates results beyond the data range used in my report. I did find that land values with houses did decrease the closer they were to CAFOs and that the closer a residence was to a CAFO the more it affected land values. However, the closest observation we had was for a residence .375 miles from a CAFO. To extrapolate our results to a distance of 1/10 of a mile is unreasonable given that current Missouri regulations would not permit a CAFO to build within 1000 feet (approximately 2/10 mile) of a residence.

Second, the coefficient associated with distance from a CAFO on land value was positive (meaning that proximity to CAFO's decreased land value) but significant at only the 85% confidence level, a level lower than that commonly used to determine statistical significance. Furthermore, the statistical confidence in predictions is much less at the extremes (small and

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<sup>1</sup> Iowa Concentrated Animal Feeding Operations Air Quality Study: Final Report. February 2002. From Iowa State University and the University of Iowa Study Group.

large distances). At distances less than .375 miles little can be said about the magnitude of land value losses. Thus the statistical strength of our estimates does not warrant the conclusion that the any land loses 88% of its value.

Third, I think it is important to point out that as a general rule, the owners of CAFOs, since they own much of the land near the CAFO bear the brunt of the land value losses themselves.

Finally, the report points out that our land value analysis looks at only the locally depressing effects on land values. Other economic analysis finds that CAFOs have a positive effect on the overall economy by providing additional income and jobs in the region. Thus there are also positive effects on land values because the stimulative effect of CAFOs.