The Actual Cost of Food Systems on Roadway Infrastructure

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ABSTRACT

This project is designed to provide more insight into the infrastructural challenges of agricultural enterprises in the state and to also facilitate the understanding needed to implement broader energy-related policy and planning. Food makes up a significant portion of roadway freight. On average, most food travels over 1,500 miles from farm to table in trucks that each causes an amount of damage equivalent to 10,000 passenger cars. Also, the increase in truck freight compounds structural damage, congestion, and carbon emissions and compromises road safety—just to mention a few of the important issues with our transport system. Using Iowa Department of Transportation (Iowa DOT) data on the highway system, this endeavor aims to capitalize on current research efforts to develop a systematic methodology for estimating the actual cost of moving food produce from farm to market, including the following: environment (carbon emissions and air quality), infrastructure, energy (fuel), congestion, safety, and user (taxpayer) costs.

Key words: air quality—carbon emissions—congestion—cost per mile—food system—freight—roadway cost