

Organic Food Miles Take Toll on Environment

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Organic fruit and vegetables may be healthier for the dinner table, but not necessarily for the environment, a University of Alberta study shows.

The study, conducted by a team of student researchers in the Department of Rural Economy at the University of Alberta in Edmonton, Canada, showed that the greenhouse gas emitted when the produce is transported from great distances mitigates the environmental benefits of growing the food organically.

“If you’re buying ‘green’, you should consider the distance the food travels. If it’s travelling further, then some of the benefits of organic crops are cancelled out by extra environmental costs,” said researcher Vicki Burt.

Burt and her fellow researchers compared the cost of ‘food miles’ between organic and conventionally grown produce, and found that there was little difference in the cost to the environment.

Food miles are defined as the distance that food travels from the field to the grocery store. The study found that the environmental cost of greenhouse gas (CO₂) emitted to transport 20 tonnes of organically grown produce was comparable to that of bringing the same amount of conventional fruit and vegetables to market.

For the study, the team collected retail price data from six grocery stores and interviewed suppliers about their shipping methods. They created

comparable food baskets of both organic and conventionally-grown fruit and vegetables being transported to Edmonton stores by truck, train or ship, and found that most travels by truck. Since 1970 truck shipping has increased, replacing more energy-efficient rail and water transport.

The researchers calculated that the annual environmental costs for a city the size of Edmonton were \$135,000 to \$183,000 (5,492-7,426 tonnes CO₂) for conventional produce and \$156,000 to \$175,000 (6,348-7,124 tonnes CO₂) for organic produce. Many of the organic products are travelling further than the conventional food. Two items in particular, mangoes and green peppers, were shipped much further than their conventional counterparts (4,217 and 1,476 kilometres, respectively). The mangoes were shipped from Ecuador and Peru as opposed to Mexico, and the peppers came from Mexico as opposed to Canada or the United States.

To help reduce greenhouse gases, Burt recommends that shoppers switch to buying locally produced food at grocery stores or farmers' markets when possible, and that any future government policy on the environment should consider the reduction of CO₂ emissions associated with food transport. The study also found that a large gap between total costs to the consumer and the price paid in the store for organic produce indicates that retailers could cover the environmental costs without passing those costs on to the consumer.

Source: University of Alberta

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