



Measuring the Current Consumption of Locally Grown Foods

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A summary of ***Measuring Current Consumption of Locally Grown Foods in Vermont: Methods for Baselines and Targets***, by David Conner, Florence Becot, Doug Hoffer, Ellen Kahler, Scott Sawyer, and Linda Berlin, published in 2013 in JAFSCD volume 3, issue 3; see the full paper at <http://dx.doi.org/10.5304/jafscd.2013.033.004>.

Brief written by **Tracy Lerman**

What is the issue?

For several years, eating locally grown food has been promoted widely in the popular media and scholarly literature as a way of providing numerous health, environmental, social, community and economic benefits. However, to date there has been little research that accurately estimates the amount of local food currently consumed. Moreover, there are several obstacles that prevent this type of measurement.

The state of Vermont recently passed legislation creating the Farm to Plate Initiative, which lays out a 10-year plan for strengthening Vermont's food system, already a significant state economic driver. A recent economic impact analysis estimated that increasing in-state production by 5% over 10 years would create 1,700 new jobs and US\$213 million in annual economic output. In addition, many Vermonters want to know whether the state can feed itself through local food production, while advocates have set goals to increase local food consumption by a given percentage.

What were the study's objectives?

This study attempts to provide baseline measures for the Farm to Plate Initiative and inform efforts to foster increased local food consumption. To do this, the authors examine (a) current local food consumption; and (b) impacts of meeting two dietary scenarios with food produced in Vermont. Specifically, the authors ask the following questions:

- (1) How much fruit, vegetables, protein, and dairy do Vermonters currently consume annually (the Average diet scenario)?
- (2) How much food in these four categories would they consume annually if they followed USDA

dietary guidelines (the Recommended diet scenario)?

- (3) How much acreage would be needed and how much revenue to farmers would be generated for each dietary scenario if they were met using primarily Vermont-produced foods, when available?
- (4) What percentage of food consumed by Vermonters is currently produced in Vermont?

How was the study conducted?

In order to calculate Average diet food consumption amounts, researchers multiplied per capita food consumption data for the four food categories – fruits, vegetables, protein, and dairy – by Vermont's population. To calculate Recommended diet food consumption amounts, researchers multiplied USDA recommended consumption amounts for each age-sex group for the food categories by the number of Vermonters in each of those groups, assuming that two-thirds of Vermonters are sedentary and one-third are active, according to the USDA's definition.

To calculate acreage needed and revenue generated if both the Average and Recommended diets are met with available Vermont-grown foods, price and yield data for different products were multiplied by consumption amounts under the two dietary scenarios. Taking into account seasonal availability and consumer preferences for fruits and vegetables, the calculations only include those products Vermont is capable of growing and not the entire variety of produce consumed (such as bananas). Revenues and acreage needs for the two dietary scenarios were compared to current sales and acreage for each food category.

To estimate current local consumption, researchers examined existing data sources, including census data for small-scale Vermont food

businesses and USDA data measuring food sales directly to consumers. They also attempted to collect data from various stakeholders, including institutional food service operations, statewide nonprofits, produce distributors, food hubs, retailers, and state government. Vermont's three major retail grocery store chains, leaving a significant data gap in the study.

Key findings

Researchers found that meeting the USDA dietary guidelines with a local, seasonal diet would bring US\$148 million in income for Vermont farmers. In order for Vermonters to meet the Recommended diet, they would need to decrease meat consumption and increase fruit, vegetable, and dairy consumption. These dietary changes would provide potential new markets for Vermont farmers.

In terms of current production, the study shows that Vermont farmers produce more than enough fruit and dairy but not enough vegetables and protein. Thus, in order to meet the Recommended diet with products grown or raised in-state, Vermont's agriculture sector would have to be significantly restructured, which would most likely be politically and economically untenable.

The authors also suggest a regional food system scenario, where nearby states coordinate with each other based on the states' respective production capacities and the dietary needs of their residents. Those states would have to conduct the kind of analysis attempted in this study. Although this scenario requires significant collaboration not just at the planning level but also at the production, processing, and distribution levels, it would help foster a smoother transition to a more localized and regionalized food system.

With regard to current levels of local food consumption, the authors found that there were no credible methods to precisely measure local food consumption. Based on their research methods, they estimated Vermont residents spend approximately US\$5.2 million on local food — about 2.5% of all food expenditures. This figure likely underestimates local expenditures as there was a data gap due to the lack of responsiveness from supermarkets and other stakeholders. This is likely due to the cost involved and lack of perceived benefits for supermarkets to report local food expenditures. The authors suggest that methods should be developed that either automate this kind of reporting or make it unnecessary.

The authors identified other limitations and needs in measuring local food consumption and expenditures, including:

- A lack of harmonized standards and definitions at the state and regional level, particularly for "local";
- How to determine the point on the supply chain where data is collected, so as not to double count or place an undue reporting burden on farmers;
- How to count local, processed products containing both local and imported ingredients, and products pooled from many farms, such as fluid milk.

To address these obstacles, the authors offer the following recommendations:

- Work with government agencies already collecting data to include more local food consumption and sales data, and work with farmers to ensure that questions are unambiguous and clear;
- Form a community of practice around measuring local foods for researchers and practitioners to focus on developing and supporting specific research goals, methods, and best practices. NESAWG, the Northeast Sustainable Agriculture Working Group, has a strong track record of regional collaboration and could expand its efforts in this area;
- Work with local buyers to incorporate local buying into procurement practices and with state legislatures to mandate that public institutions report local buying amounts; and
- Encourage local food advocates to publicly recognize businesses that provide data.

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