

Running Head: Why Buy Local?

The Spirit of Locally Grown Foods: Promoting a Healthier Lifestyle for Residents of
Howard County, IA

Ben Childers

Grayce Hamlin

Kadie Hutton

Angela Katrichis

Jon Lobeck

Candace Wetzel

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Abstract

The Northeast Iowa Food and Fitness Coalition conducted a survey that led our group to further investigate the health benefits, economic factors, and environmental factors that influence a local economic structure as well as explored the implications these effects have for residents living in Howard County. The results from 92 returned questionnaires guided our investigation and gave us a foundation in which to explore these connections. Our findings suggested that the consumption of locally grown food is not only favorable, but also possible despite other impeding barriers. Through cost benefit analysis of health, economy, and environment, we found that the advantage of embracing the spirit of locally grown provides beneficial options for oneself, the environment, and the community that can and hopefully will be implemented into the eating styles of area residents as a result of research and awareness by efforts associated with the Northeast Iowa Food and Fitness Initiative.

Economic Affects

Angela Katrichis

Introduction

In April, the Northeast Iowa Food and Fitness Initiative received a grant from the W.K. Kellogg Foundation to help communities embrace active living and healthy eating. Those included in the initiative were the following counties: Allamakee, Clayton, Fayette, Howard, and Winneshiek County.

The Northeast Iowa Food and Fitness Initiative, co-led by Northeast Iowa Resource Conservation and Development Inc. and Iowa State University Extension, is one of nine projects nationwide selected as pilot sites by Kellogg. The projects are currently involved in a two year process of developing a community action plan to create community environments that support healthy children, youth, and families by making available and promoting the procurement and consumption of local healthy food in addition to creating space and structure for physical activity.

During this planning process, the Northeast Iowa Food and Fitness Initiative addresses issues such as increasing the availability of healthy local foods in school, restaurants and grocery stores, improving opportunities for residents to incorporate physical activity into their everyday lives, strengthening public understanding of the economic, health and environmental benefits of leading healthier lifestyles, and helping local, state and federal legislators understand how policy impacts health in rural America.

In attempts to contribute to their efforts, this research addresses the issues regarding the local food system and its affiliation to overall health and well-being. By addressing economic factors, a thorough understanding of the practice of “local” can be

understood as well as the implications involved in this practice: accessibility and availability, the impact on local economy, and the role of the consumer. In particular, our efforts are concentrated within Howard County, one of the five counties involved in the Northeast Iowa Food and Fitness Initiative.

Method

The Northeast Iowa Food and Farm Coalition sought input from the residents of Howard County on food purchasing and use specific in the area. The goal of the survey aimed at providing safe, high quality food for Northeast Iowa county residents (Northeast Iowa Local Food Survey, 2007). The Northeast Iowa Food and Farm Coalition, in collaboration with a community development, data gathering and analysis firm, CD-DIAL, developed a ten page questionnaire which was then distributed to 222 randomly selected households within Howard County. The results obtained from the survey allowed the researchers to conclude their findings with 95% confidence that the data was within +/- 10% accuracy of representing all county residents (Northeast Iowa Local Food Survey, 2007). The results from this survey were incorporated into other existing literature in attempts to create an enriched view of the various factors that influence these results.

Discussion and Results

What is Local?

Before considering the various factors that influence this topic, there must be consideration made to the controversy of the operational definition for “locally” grown. Conventionally, the term “local” usually refers to a particular spatial relation in the

context of mileage with affiliated terms such as a city, town, or district. However, this definition poses difficulties of maintaining the spirit of local and its actual practice. For example, Hormel, a nation-wide meat producer, is located within 50 miles of Howard County in Austin, MN. Conflict arising from business owners demographically, is the struggle between sustainable practice and supporting local economy. For instance, a local business provided their financial report, which included their transactions with a large distributor in comparison to local businesses. It costs this business \$.60/lb in comparison to \$.35/lb for cucumbers when opting for local suppliers. Overall, it costs a local business owner fifteen to twenty percent more to opt for the local option than it does to order from a large distributor. Likewise, food establishments in Howard County, such as Fareway and Integrity Mills, chose large distributors despite the local economy movement. To farm sustainability and also to stay in business, these markets have to bridge the psychological gap between what consumers could pay, and what we will actually shell out (Kingsolver, 2007). Other proponents of industrial agriculture claim that large-scale factory farming is the most efficient way to produce high volumes of inexpensive food and that without industrial agriculture, food prices would be excessively high. However, the price of industrial food does not take into account the true costs of production. When these hidden environmental and health costs are factored in, as discussed later in this report, industrial food costs more than sustainable (Organic Consumers Association, 2007). Other barriers including accessibility and availability are additional factors that affect the practice and influence of *locally grown*¹.

¹ There is not enough ample information available to sufficiently define what is meant by “locally grown.” This is significant to note especially considering the various interpretations that have shaped the attitudes which are inherent in the reported literature encompassed in this report.

Accessibility and Availability

The Northeast Iowa Food and Farm Survey assessed the purchasing habits of each of the surveyed individuals with a series of statements about general food purchasing. The statement “will purchase locally produced food if it is convenient,” received the highest average rating of 5.0 on a scale of 1 to 6 (1= “strongly disagree” and 6= “strongly agree”). In addition, 76% of the respondents indicated that they would be likely to purchase locally produced foods if they were offered in their local grocery store. However, suppliers face high demands in addition to costs, when opting for locally grown foods.

Additional burdens on a supplier include harvest year and growing season. Massachusetts Farm to School Project, a three-year-old program that helps to eliminate the middleman in food distribution by having more farmers bring their products directly to campuses, indicated that about 20 percent of the ingredients for student meals come from locally grown crops during the fall and spring in comparison to a mere 5 percent during the winter (Boston Globe, 2007). The biggest limitation for most businesses is the growing season. Because of these substantial cost and availability factors, most food establishments in Howard County do not offer locally grown produce. However, three businesses have made this possible. These business—North River Produce, Ltd./ Natvig Family Farm, McGee Sheep Farm, and Golden Ridge Cheese Cooperative—in addition to the Cresco Farmers Market, offer hope to locally farmers facing the struggles of supporting the spirit of locally grown. These businesses are motivated by the effects the practice has on the local economy, quality of product, and protecting the rights of the consumer.

Local Economy

Only 18 cents of every dollar, when buying at a large supermarket, go to an actual grower while 82 cents of that product is pocketed by various middleman (Local Harvest 2007). In 2002, farmers reported their lowest net cash earnings since 1940. In addition, according to the USDA, 4.7 million farms have been lost in the United States since 1935. By buying locally, these farmers are enabled with a sense of ease from financial distress and are able to continue to support its community through the practice of self-reliance—money stays within the community longer. These communities that sustain themselves have additional hometown advantages.

When making procurement decisions, many cities and states give preference to local businesses as a means to nurture small businesses and local economies. Some of these jurisdictions give a local preference only in the case of tie bids, but others give preference if a bid from a local business is within a certain percentage of the lowest non-local bid (Frazier, 2007). Washington D.C., for example, by administrative practice gives a five percent preference to local firms. Giving preference to local suppliers, even if it means spending a little more, can actually benefit a city's finances. Dollars spent locally generate additional economic activity even beyond the value of the initial contract as the local supplier in turn sources goods and services locally. Each additional dollar that circulates locally boosts local economic activity, employment, and ultimately tax revenue (Hometown Advantage, 2007). The circulation of wealth enables money to stay within the community longer.

Local food also creates a handshake deal in a community-gathering place. It involves farmers with first names, who show up week after week (Kingsolver, 2007). This interaction enables consumers to evaluate the quality of their foods by being in contact with the grower directly. Because of the close relationship that is created between supplier and consumer, not only is a sense of community and awareness promoted, but also, that interaction enables the consumer with purchasing power. Corporate businesses, operating from a large consumer base, have to generalize the services they provide to fit the needs of a broad population of consumers. Local businesses can specialize their services to meet the needs for their specific communities; however, it is consumer preference that determines the products seen within a community.

Consumer Preference

A typical supermarket in 1976 had 9,000 products; today it has more than 30,000 (Waldman, 1992). Considering the overwhelming options, choice can prove to be profoundly debilitating. Many marketers consider consumers a fickle and unpredictable lot, known to change their purchasing decisions as quickly as winds shift, without being able to say why. This is in part because subtle cues in the environment influence consumers without their knowledge. In one field study, 59 undergraduate students were each shown one of two slogans—“Live the healthy way, eat five fruits and veggies a day” or “Each and every dining hall tray, needs five fruits and veggies a day”—halfway into a two-week study of their eating habits. The first slogan was better liked in a pretest survey; yet, those who saw the second slogan ate more fruits and vegetables in the week

they saw the slogan. The problem with the first slogan, observed a researcher, was that there was nothing in the environment to remind people to think of it (Larry Yu, 2007). If consumers realize the link between the environmental cue and the product association, they might be more conscious to exercise their right of product choice.

This study is particularly important to the residents of Howard County. Although the general consensus of the Northeast Iowa Local Food and Farm Survey indicates the support of residents for locally produced foods, the county lacks the resources for promoting the practice. In the survey, over half of the respondents (59%) would be more likely to purchase locally produced foods if they were available at the local grocery store, Howard County's grocery stores do not supply locally grown foods. Because the supplier meets the demand of the consumer, Howard County residents should focus on reevaluating their purchasing power especially in light of a movement to promote the procurement and consumption of local healthy food—a goal which can be attained through the practice of a local economy.

Affects on Health

Grayce Hamilin

Assisted by Candace Wetzel

Method

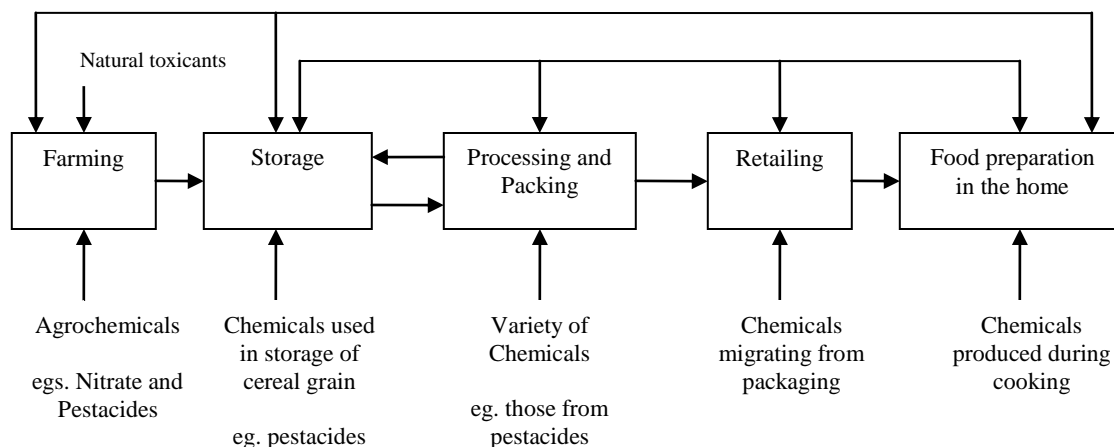
The main focus of our health research was finding whether eating organically grown foods yielded more benefits for consumers' health when compared to conventionally grown food. Firstly, a book containing the chemical make-up of pesticides and other contaminant-related subjects, Safety of Chemicals in Food: Chemical Contaminants, was consulted. Another book that was consulted was called Food—From Farm to Table. This is a yearbook of agricultural information facts composed by the United States Department of Agriculture in 1982. Another book was Food, Politics, and Agricultural Development Case Studies in the Public Policy of Rural Modernization. Some internet sources used were <http://www.wikipedia.com>, <http://www.soilassociation.com>, <http://mayoclinic.com>, and <http://www.medicalnewstoday.com>. The reason for using these sources was their status of credibility and reliability in discovering the health benefits of organically grown foods as opposed to conventionally grown foods. Overall, the health benefits of organically grown foods were evaluated, as a means to create awareness among the citizens of Howard County.

Results and Discussion

There are numerous drawbacks to conventionally grown food, including pesticide use. When using pesticides or chemical contaminants and various food additives, there are negative physical effects. According to Food-From Farm to Table, a chemical

contaminant is “any substance not intentionally added to food, which is present in food as a result of the production, manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food, or as a result of environmental contamination or its production by a living organism” (1 Food-From Farm to Table). Also, the way farmers treat organically grown foods is very different than conventionally-grown foods. Conventional farmers apply chemical fertilizers to promote plant growth, whereas organic farmers apply natural fertilizers, such as manure or compost, to feed soil and plants. Conventional farmers spray insecticides to reduce pests and diseases. Instead, organic farmers forgo using chemicals by using helpful insects and birds to promote mating disruption in harmful insects or birds to reduce pests and diseases. Lastly, conventional farmers use chemicals or herbicides to manage weeds, whereas organic farmers rotate crops, till, hand weed, or mulch to manage weeds (<http://www.soilassociation.org>). Therefore, it was found that the beginning of the chemical contamination starts on the farm, which is demonstrated on the following chart, found in Safety of Chemicals in Food: Chemical Contaminants.

Chemicals in the Environment



☆ Summary of some of chemical concentration of plant-based foods

Throughout time, the development of agriculture has changed, which has caused technology to focus on accommodating the environment, in order to investigate the effects of dangerous chemicals in conventionally grown food. This has occurred because chemicals, contaminants, and food additives have attributed to debilitating physical conditions. Furthermore, the way technology has reformed has allowed researchers to examine the effects of the most dangerous chemicals used in farming, called organophosphates, also known as pesticides. These chemicals have been related to conditions such as cancer, decreased male fertility, fetal abnormalities, chronic fatigue syndrome in children, and Parkinson disease. Shockingly, the American Government has ranked pesticide residues among the top three environmental cancer risks.

It was also discovered that health problems in adults and children have been linked to the negative effects food coloring and additives found in many different types of foods. An example is yellow food coloring E102, also called Tartrazine. This coloring, along with others, has been linked to allergic reactions, headaches, asthma, growth

retardation, and hyperactivity in children. Appallingly, three hundred different additives are permitted in conventional food (<http://www.medicalnewstoday.com>).

When the drawbacks of conventionally grown foods are compared to the benefits of organically grown foods, the differences are astounding. According to Wikipedia, organic foods, “Organic foods are produced according to certain production standards. For crops, it means they were grown without the use of conventional pesticides, artificial fertilizers, human waste, or sewage sludge, and that they were processed without ionizing radiation or food additives” (<http://www.wikipedia.com>). The purity of organically grown foods yields many physical benefits. Looking at a comparison of women who do not have breast cancer and women who do further magnified these findings. Those who had breast cancer were five to nine times more likely to have pesticide residue in their blood (<http://www.medicalnewstoday.com>). “The apparent link between hormone dependant cancers, such as those of the breast and prostate may be via endocrine disrupting chemicals” (Medical News Today News Article). These disrupting chemicals include pesticides. Therefore, the risk of breast cancer and prostate cancer is, generally, lower in those who eat organically grown foods as opposed to conventionally grown foods.

Other positive aspects of organically grown food include quality and taste, which is usually preferred to that of conventionally grown foods. Researchers at Washington State conducted a study in 2001 (<http://www.wikipedia.com>). This study included a panel of apple tasters. It was agreed organic apples tasted sweeter. Facets of the texture and firmness of the organically grown apples also ranked higher than in conventionally grown apples. Moreover, finding the freshest foods may have the biggest influence on taste. It is

also important to buy produce the day it is delivered to the market to ensure that it's the freshest possibly available.

Putting a USDA Organic label on organically grown food is voluntary, but many organic producers use it so buyers know that their product is organically-grown. If a product has such a label, it means it is produced and processed according to USDA standards, and at least 95% of its ingredients are organically produced. Some other, somewhat misleading, food labels may contain the words "all-natural", "free-range", or "hormone-free," which also may be important to the buyer, but should not be confused with the term "organic." The product must contain the label in order to be considered truly organic (<http://www.mayoclinic.com>).

An important factor in organic foods is that certain ingredients cannot be included in its final product for it to be considered organically grown. Some are monosodium glutamate, aspartame, and phosphoric acid, and hydrogenated fats. These products, widely used in non-organic foods, have been shown to be threatening to physical health. Along with the banning of certain products in organic foods, there are also certain ingredients that are allowed. There are also stringent standards for organic food. An example of this is the allowance of only thirty additives in organically grown foods, including iron, thiamine and various vitamins and minerals.

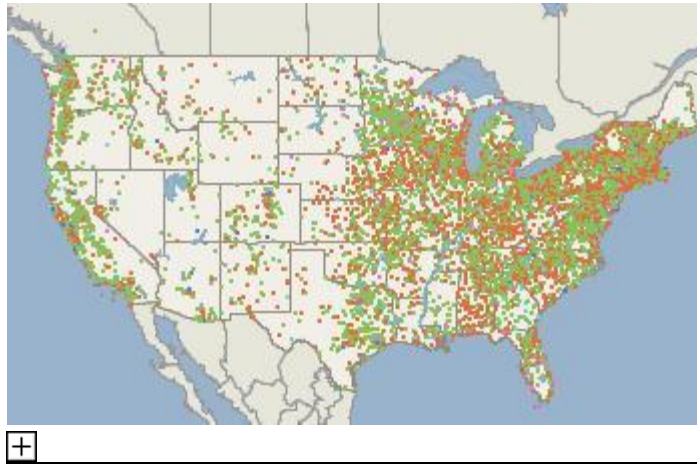
Environmental Affects

Kadie Hutton

Method

The data collected for the environmental aspect of this paper was attained by exploration through various search engines; the most beneficial: Local Harvest. To discover the best climate various foods grow in, 4 different states were entered in the search box on the right hand side near the middle of the page. These 4 states were California (west coast), Texas (south), New York (east coast), and Iowa (Midwest). After each state was selected, the next webpage displayed all the farms, farmer's market, restaurants, and grocery stores that used or sold locally grown foods, and also what town they were located. A farm was then selected for each of the four states. After selecting a farm, every food the particular farm sold was listed, as well as the season of which it was accessible to the general population.

Results



■ Farm ■ Frm Market ■ Restaurant ■ Grocery ■ Other

*The above map illustrates the availability of locally grown foods throughout the United States.

California was the first state explored to see what types of locally grown food people are able to produce in that precise region of the United States– the specific farm observed was Always Enough Ranch. Some of the foods grown are: vegetables – green peppers, artichokes, hot peppers, spinach, and eggplant; fruits – grapes, melons, watermelons, and figs; meats – beef and goats; others are gourds, eggs, and herbs. This area of the United States has a warm climate with humidity, both of which are good environments to grow many fruits and vegetables. Most of this food is available during the summer and fall seasons.

The second state observed was Texas to investigate what types of foods are grown in a southern climate, which is usually hotter weather. The data obtained for the state of Texas was through Akin Farm. The food sold at Akin Farm is: vegetables – broccoli,

cucumber, carrots, and lettuce; fruits – cantaloupes, fig, and strawberries; and other foods are herbs and honey. This food is more available in the spring and fall.

New York was the third state observed, which has a climate normal to the Midwest, really cold in the winter and warm and humid in the summer, but it doesn't have as rich as soil as the Midwest. Locally grown food information was attained through Biophilia Organic Farm. The foods grown are: vegetables – cabbage, beets, garlic, and kale; fruits – strawberries, melon, and watermelons; and gourds – pumpkins and squash. The majority of the food listed above is sold in the summer and fall.

Finally, Iowa was investigated for foods that are grown in the Midwest, and can be sold locally. However, for this section, Cresco, IA was specifically researched to find what consumers can buy locally where we live. Natvig Family Farm is the farm where the following food is sold: meats – beef and pork; grains – corn, oats, and soybeans; nuts – hazelnuts and walnuts. All of this food listed is sold year-round.

Discussion

Observing the results, it is noticeable that various climates affect the type and amount of locally grown food obtainable in specific regions of the United States. The information on environmental aspects was profound in different regions of the United States. As observed above, there are many different types of food sold locally due to the dramatic climate differences. The west coast has the most variety of types of food that can be sold locally, and the east coast has the least diversity. Looking specifically at the Midwest, and even more exact, Cresco, IA, there are fewer foods to choose from. This may be due to the more dramatic weather changes or because the area is more rural. So,

when the population is minimal (like Cresco) there is going to be less consumers buying.

Also, the season with the most food available, in all regions, is the summer.

Sources

Economic Aspects

- AT&T Knowledge Ventures (2007). Convenience Stores, Food Products, Grocery, Restaurants in Howard County. *Yellow Pages*. Retrieved November 6, 2007, from <http://www.yellowpages.com/mc/Cresco-IA>
- Attwood, Karen (2007, February 2007). Local Produce: The Way to Beat Supermarkets. Retrieved November 6, 2007, from Independent News and Media Database.
- Boston Globe Business Team (2007, March 29). Massachusetts Schools Serving Local Produce. Boston Globe. Retrieved November 6, 2007 from http://www.boston.com/business/ticker/2007/03/mass_schools_se.html
- Community Development-Data Information and Analysis Laboratory (2007). Northeast Iowa Local Food Survey: Howard County. Retrieved November 6, 2007 from <http://www.extension.iastate.edu/NR/rdonlyres/89585664-F071-413D-96FB-972710C15F1E/61892/HowardCountyFullReport.pdf>
- Cooper, Arnie (2004). Biting The Hand: How Globalization Cripples Small Farms. *The Sun*, p. 4-12.
- Danaher, Kevin (2005). A New Strategic Focus for Progressives: The Local Green Economy. CommonDreams.org. Retrieved November 27, 2007 from <http://www.commondreams.org/cgi-bin>
- Frazier, M. (2007, June 4). Farmstands vs. Big Brands. *Advertising Age*, 78(23), 16-16. Retrieved December 3, 2007, from Communication & Mass Media Complete Database.
- Hamilton, Ryan, Jiewen Hong, Alexander Chernev (2007, August). Perceptual Focus Effects in Choice. *Journal of Consumer Research*, Vol. 34, Iss. 2; pg. 187-199.
- Kingsolver, Barbara (2007). Growing Trust. *The Mother Earth News no222 Je/J1 2007*, 70-78.
- Local. (n.d.). *Dictionary.com Unabridged (v 1.1)*. Retrieved December 04, 2007, from Dictionary.com website: <http://dictionary.reference.com/browse/local>
- McCluskey, Jill and Maria Loureiro (2003). Consumer Preferences and Willingness to pay for Food Labeling: A Discussion of Empirical Studies. *Journal of Food Distribution Research* 34(3). Retrieved November 27, 2007 from PsycARTICLES database.
- Schlitzer, Tim (2007). Why Eat Local. *Delicious Living: September 2007*, 23. Retrieved November 27, 2007 from Wilson Web database.

Stille, Alexander (2002, May/June). Slow Food's Pleasure Principles: A 21st Century Movement Links the Love of Eating with Global Justice and Ecology. *Utne Reader*, p.56-58.

Yu, Larry (2007). What You See Affects What You Get: How Environmental Cues Influence Consumer Behavior. *MIT Sloan Management Review*, 28(4), 6.

Waldman, S. (1992, January 27). The Tyranny of Choice. *New Republic*, 206(4), 22-25. Retrieved December 3, 2007, from Military & Government Collection Database.

Health Aspects

Cleeton, James (2004). Coronary and Diabetic Care in the United Kingdom. *Association of Primary Care Groups and Trusts*. Retrieved December 4, 2007 from <http://www.medicalnewstoday.com/articles/10587.php>

Watson, David (1995). Safety of Chemicals in Food: Chemical Contaminants. Great Britain: Horwood

Hopkins, Raymond F., Donald J. Puchala, and Ross B. Talbot (1979). Food, Politics, and Agricultural Development Case Studies in the Public Policy of Rural Modernization. Boulder, Colorado: Westview Press, Inc.