

RuralCONNECTIONS

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May 2012



EAT LOCAL

Local and Regional Food Hubs Boost Rural Economies

With an introduction by USDA Deputy Secretary Kathleen Merrigan



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FROM THE EDITOR



It seems that everywhere I go these days I am seeing, hearing, and reading about our food system. Whether it's the hundreds of ag-related tweets I receive each day, or stories in the news about farm subsidies and the plight of the small farmer; the skyrocketing obesity epidemic and how we're going to feed the world, or on TV like the recently-aired HBO documentary "The Weight of the Nation," or conversations with family and friends guffawing at the food industry's blatant obsession for profit over health. Our nation's preoccupation with food is growing and I am hopeful it is shifting from one of cheaper-the-better gluttonous consumption to one of locally grown, in-season, and healthily proportioned.

Food: we grow it, raise it, eat it, and savor it. It's the centerpiece of celebrations. It's vital to our existence and yet somehow, we as a nation, lost sight of the growers and producers, and food as a living, beneficial thing and became obsessed with increasing yields, extending shelf life, and lowering costs while in many cases sacrificing nutrient content and the land on which the food is grown and raised.

Today's discussions about our food system provide us with an opportunity to improve our approaches as we strive to feed the world's burgeoning population. There is a balance to be achieved: one that encourages continued research and advancement in agricultural sciences while also increasing local access to affordable, healthy fruits, vegetables, meats, dairy, and poultry. I am confident we will strike this balance and my confidence grew tenfold after reading the articles in this issue of *Rural Connections*. Our authors provide evidence of the increasing local-foods movement and provide us with practical information we can apply in our communities. This issue also includes a challenge from USDA Deputy Secretary Kathleen Merrigan for each of us to do more and I hope all of you will join with me in accepting her challenge.

Yours in the pursuit of healthy food access for all,

A handwritten signature in blue ink that reads "Betsy".

Betsy H. Newman
Editor



FROM THE DIRECTOR



During my childhood, most of the food that I ate was produced in my home county. Our diet consisted of lots of fruits and vegetables as well as milk, eggs and meat. The food was both delicious and nutritious. Then in the name of economic efficiency, the global food system became increasingly centralized. In much of the world, farmers no longer grow a variety of products for local consumption, but have become specialized in growing one or two items for the global market. The benefits of this centralized global food system include the fact that the American diet is relatively inexpensive and the variety of food available in the typical grocery store is astounding.

Unfortunately, however, there are numerous costs associated with our centralized food system. Perhaps most fundamental are the health implications. With Americans consuming more packaged food that is loaded with preservatives and fat, obesity levels and rates of diet-related illnesses such as Type II Diabetes have skyrocketed. Furthermore, there is little question that locally produced food is fresher and tastes better. Finally, as described in this issue, the global food system reduces local economic opportunities.

I am very excited about the articles in this issue of *Rural Connections*. Authors from throughout the country discuss innovative and tested approaches for improving our diet and the local economy at the same time. It is my hope that the ideas presented here can assist our readers in advancing the consumption of locally produced food in their own communities.

As always, I greatly appreciate the hard work and skills of our *Rural Connections* editor, Betsy Newman.

Best wishes,

A handwritten signature in black ink that reads "Don E. Albrecht". The signature is written in a cursive, slightly slanted style.

Don E. Albrecht
Director, Western Rural Development Center
Utah State University



PICTURED: SKARSGARD FARM IN NEW MEXICO.



A FOOD HUB CHALLENGE

By USDA Deputy Secretary Kathleen Merrigan

“MUCH OF AMERICA’S FOOD INFRASTRUCTURE DOESN’T WORK FOR LOCAL AND REGIONAL FOOD PRODUCERS, WHICH IS ONE REASON WHY FOOD HUB DEVELOPMENT OFFERS SUCH OPPORTUNITY.”

On a rainy Friday in late April, I addressed a Chicago conference room filled with over 150 entrepreneurs, funders, advisors, and local government officials. They were all there for one reason: they were all interested in food hubs, an innovative business model that is playing a strong role in regional food system development across the country. It was the first-ever dedicated national gathering of food hub stakeholders, organized by the Wallace Center at Winrock International, USDA, and other members of the National Good Food Network.

Over the last decade, local and regional food has grown into a multi-billion dollar industry. A National Grocers Association poll last year found that 85% of consumers choose a grocery store in part based on whether it stocks food from local producers. Yet we run the risk of hitting a plateau in the market before we have developed the systems and infrastructure needed to make it work financially over the long term.

That’s why, in my remarks in Chicago, I did something that may not have made the audience happy. I challenged them – and now I challenge you – to do more.

I realize that food hubs are already doing a lot. They aggregate products from small and mid-sized farms; many provide packing and processing services, market the products to regional

buyers, and even coordinate local or regional distribution. Access to the infrastructure that it takes to carry out these functions can open up tremendous opportunities for the local economy. Infrastructure can include things like a warehouse and cold storage facility to sort, grade and store food, and keep it fresh; processing operations to prepare products for schools, grocers or other buyers; and refrigerated trucks to transport local food. Access to refrigerated storage space means that a farmer can wait for a competitive price for his or her product rather than having to sell immediately after harvest. Buyers can more easily source from many small farms without the burden of additional paperwork if the farmers have a warehouse in which to aggregate and cooperatively market their products.

Much of America’s existing food infrastructure doesn’t work for local and regional producers, which is one reason why food hub development offers such opportunity. It is difficult for producers to thrive when their only marketing options are too large to accept small amounts of product, too far away for smaller transportation networks to reach, or unable to preserve the local identity of the food.

That is why, as part of USDA’s Know Your Farmer, Know Your Food initiative launched in 2009, we convened a working group on food hubs. As part of the National Food Hub



PICTURED: AS A FOOD HUB, GREEN B.E.A.N COORDINATES DELIVERY FROM 56 REGIONAL PRODUCERS TO CUSTOMERS IN OHIO, KENTUCKY, AND INDIANA. SINCE 2007, GREEN B.E.A.N HAS INVESTED MORE THAN \$2 MILLION INTO THE LOCAL FOODS ECONOMY AND CREATED MORE THAN 100 JOBS.

Collaboration, USDA has identified over 170 food hubs nationwide, mapped them, and analyzed and disseminated information about different business models. We have seen some truly innovative operations. They are filling a critical niche for farmers and ranchers whose operations are too big to subsist solely on direct-to-consumer markets, but too small to compete in traditional wholesale markets. These are producers who would like to sell to larger buyers such as institutions and grocery stores, but who lack the capacity to pack and process the products to meet buyer specifications. They also lack the time and infrastructure to market and distribute the products.

Food hubs are making it possible for small and midsized farmers to reach commercial markets they could never reach alone. Even more impressive, they are doing it in a way that generates jobs and keeps more of the retail food dollar in the pockets of those farmers and ranchers.

So why am I issuing a challenge?

Because we still have a long way to go. We cannot stop making the case that local and regional food systems matter – to farmers and ranchers, to communities that lack access to healthy food, and to our local economies – and we can't stop thinking big.

Many of us are involved in this work because we believe in what local and regional food systems have to offer: a decent return to the farmer; opportunities to develop new businesses and jobs all along the supply chain, and a way to bring healthy food to communities that lack it. We are not there yet. That's why I challenge you to reach out to new communities and bring them into the conversation, and to continue to make the case to yourselves and your constituents that these goals are worth working for.

I also challenge you to think about how to leverage available federal resources to support your work. Learn more about USDA programs that might apply to you; this information is available in a new narrative and interactive map that we released in late February called the Know Your Farmer; Know Your Food Compass. Available at www.usda.gov/kyfcompass, it is a digital guide to USDA support for local and regional food systems. Food hubs figure prominently in the infrastructure section of the narrative and are peppered across the map. These are excellent tools to help you identify others engaged in this work and learn about how they used USDA resources to further their efforts. I urge you to explore the KYF Compass, share it, and find ways to use it in your communities.

Another challenge is to redouble our efforts to develop strong regional supply chain infrastructure. While some links in the chain must be built from the ground up, there are also opportunities to use existing infrastructure in new ways. For example, USDA's Agricultural Marketing Service partnered with the Wallace Center and the National Association of Produce Market Managers to survey available space at wholesale markets that could potentially be used for food hub activities. Other infrastructure, such as short rail – traditionally

“WE CANNOT STOP MAKING THE CASE THAT LOCAL AND REGIONAL FOOD SYSTEMS MATTER – TO FARMERS AND RANCHERS, TO COMMUNITIES THAT LACK ACCESS TO HEALTHY FOOD, AND TO OUR LOCAL ECONOMIES – AND WE CAN'T STOP THINKING BIG.”

used to transport products between ports and cross-country rail or trucking lines – also holds promise for local food distribution.

Using this and other infrastructure in new ways, or building new infrastructure, brings economic activity and jobs to a community. As Allison Gunter and Dawn Thilmany find in their study in this issue, it is this kind of job-generating activity that bumps up the economic impact of local food systems from moderate to massive.

In this issue, you'll read about many different efforts geared toward a common goal. From the work of Healthy Communities in Nevada – also profiled in the KYF Compass – to the ongoing research of Rich Pirog, Corry Bregendahl, and their team at Michigan State University to support “agriculture of the middle,” to the case studies from USDA's new Regional Food Hub Resource Guide profiled in this issue by Jim Barham, these are examples of entrepreneurial innovation at its best.

But our innovation cannot stop here. Read and learn from the stories in this issue – and then let's take it to the next level. ●



PICTURED: DAYTON, NEVADA, STUDENTS HARVEST POTATOES FROM THEIR ORGANIC GARDEN. THE GARDEN, PART OF A FOOD HUB IN THE REGION, WAS LATER FEATURED IN THE USDA'S NEW PUBLICATION “KNOW YOUR FARMER, KNOW YOUR FOOD COMPASS.” PHOTO BY KELLY CLARK OF USDA RURAL DEVELOPMENT. USED WITH PERMISSION.

CLARIFYING THE REGIONAL FOOD HUB CONCEPT

By James Barham

Author's note: The content of this article comes from the recently released USDA publication entitled, "Regional Food Hub Resource Guide." The guide was a joint project between USDA and the Wallace Center at Winrock International and represents over two years of research and examination of the food hub concept, the impacts of food hubs on regional food systems, and the financial resources available to support their growth and development. This article includes excerpts from the section in the guide where we attempt to provide some clarity on the food hub concept. The question and answer format used in the guide has been retained here in order to make it more engaging for the reader.

What is a Regional Food Hub?

The regional food hub concept has sparked interest from a wide array of food systems funders, planners, businesses, researchers, and service providers. Along with this interest has come some confusion on what a regional food hub is and what it is not. Several definitions are emerging, from those that narrowly define food hubs in terms of market efficiency functions to more expansive definitions that incorporate food hubs into wider visions of building a more sustainable food system.

Having engaged and learned from a great number of food hub stakeholders, USDA and its partners propose the following definition which we believe more adequately reflects the full range of food hub enterprises operating in the United States: A regional food hub is a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional

producers to strengthen their ability to satisfy wholesale, retail, and institutional demand.

At the core of a food hub is a business management team that actively coordinates supply chain logistics. Some food hubs work on the supply side to support and train producers in areas such as sustainable production practices, production planning, season extension, packaging, branding, certification, and food safety—all of which is done to enable these producers to access wholesale customers, such as buyers for foodservice institutions and retail stores. Simultaneously, food hubs also work on the demand side by coordinating efforts with other distributors, processors, wholesale buyers, and even consumers to ensure they can meet the growing market demand for source-identified, locally or regionally grown products.

How Do Regional Food Hubs Help Farmers and Ranchers?

Many farmers and ranchers are challenged by the lack of distribution and processing infrastructure of appropriate scale that would give them wider access to retail, institutional, and commercial foodservice markets, where demand for local and regional foods continues to rise. Regional food hubs have emerged as an effective way to overcome these infrastructural and market barriers. For those smaller and mid-sized producers who wish to scale up their operations or diversify their market channels, food hubs offer a combination of production, distribution, and marketing services that allows them to gain entry into new and additional markets that



PICTURED: PURPLE HAZE CARROTS.

would be difficult to access on their own. For larger producers, food hubs can provide product-differentiation strategies and marketing services that ensure the highest price in the market place. Moreover, for wholesalers, distributors, retailers, and foodservice buyers who would like to purchase larger volumes of locally and regionally grown products, food hubs lower the transaction costs by providing a single point of purchase for consistent and reliable supplies of source-identified products from local and regional producers.

How Do Regional Food Hubs Differ From Other Local Food Distributors?

While many regional food hubs are local food distributors, they are much more than this. Food hubs are examples of innovative, value-chain business models that aim to be financially viable while having wider economic, social, and/or environmental impacts within their communities. They do this by offering a suite of services to producers, buyers, and/or the wider community.

First and foremost, regional food hubs actively seek to provide new market outlets for small and mid-sized local and regional producers. As such, food hubs often provide, or find partners to provide, technical assistance to producers in such areas as production planning, season extension, sustainable production practices, food safety, and post-harvest handling—all of which increases the capacity of these producers to meet wholesale buyer requirements (such as quality, volume, consistency, packaging, liability, and food safety). Food hubs may also work with producers to add value to their products through a number of product differentiation strategies, which include identity preservation (knowing who produced it and where it comes from), group branding, traceability, provenance, product attributes (e.g., heirloom, unusual varieties), and sustainable production practices (such as certified organic, minimum pesticides, and “naturally” grown or raised). Depending on their physical infrastructure capacity, some food hubs also offer others services, such as bulk purchasing of inputs, light processing (such as trimming, cutting, or freezing), and product storage.

Because most food hubs are firmly rooted in their community, they often carry out a number of community services. These include donating to food banks, increasing consumer awareness of the benefits of buying local food, organizing educational farm tours, offering farm apprenticeships, increasing healthy food access by establishing delivery mechanisms into underserved areas, and—for food hubs with a retail component—carrying out activities such as SNAP redemption, nutrition and cooking education, and health screenings.

All of this is not to say that a local produce distributor cannot be a regional food hub. Many local produce distributors operate as food hubs, and they all share the following attributes:

- At the core of their business model is the commitment to buy from small to mid-sized local growers whenever possible.
- They work closely with their producers to build their capacity to meet wholesale buyer requirements.
- They ensure a higher price for their growers' products by using product differentiation strategies to command a premium in the marketplace.

What Is the Role of Food Hubs in Regional Food System Development?

In many parts of the country, wide gaps exist in local distribution and processing infrastructure, making it difficult for small and mid-sized growers to gain access to markets where there is unmet demand for source-identified locally or regionally grown products. Regional food hubs are increasingly filling a market niche that the current food distribution system is not adequately addressing—the aggregation and distribution of food products from small and mid-sized producers into local and regional wholesale market channels (retail, restaurant, and institutional markets). Additionally, because food hubs provide a number of additional services that build the capacity of local producers and also engage buyers and consumers to rethink their purchasing options and habits, food hubs are emerging as critical pillars for building viable local and regional food systems.

DEFINING CHARACTERISTICS OF A REGIONAL FOOD HUB

Regional food hubs are defined less by a particular business or legal structure, and more by how their functions and outcomes affect producers and the wider communities they serve. Defining characteristics of a regional food hub include:

- Carries out or coordinates the aggregation, distribution, and marketing of primarily locally/regionally produced foods from multiple producers to multiple markets.
- Considers producers as valued business partners instead of interchangeable suppliers and is committed to buying from small to mid-sized local producers whenever possible.
- Works closely with producers, particularly small-scale operations, to ensure they can meet buyer requirements by either providing technical assistance or finding partners that can provide this technical assistance.
- Uses product differentiation strategies to ensure that producers get a good price for their products. Examples of product differentiation strategies include identity preservation (knowing who produced it and where it comes from), group branding, specialty product attributes (such as heirloom or unusual varieties), and sustainable production practices (such as certified organic, minimum pesticides, or “naturally” grown or raised).
- Aims to be financially viable while also having positive economic, social, and/or environmental impacts within their communities.

Although regional food hubs are filling a market niche of small farm distribution, this does not mean they do not engage with conventional supply chains. In fact, many food hubs complement and add value to these more traditional distribution channels by enabling regional food distributors—and their national food distribution clients and partners—to offer a broader and more diverse selection of local or regional products than they would otherwise be able to source. In addition, they often add significant value to conventional supply chains by providing a reliable supply of source-identified (and often branded) local products that conform to buyer specifications and volume requirements and still enable their clients to “tell the story” behind the product. For this reason, regional distributors—and even broadline, full-service national distribution companies like Sysco—are beginning to view food hubs as critical partners instead of competitors to ensure they can meet the market demand for locally and regionally grown food.

Do Regional Food Hubs Sell Only Local and Regional Food Products?

Many regional food hubs buy outside their region during the off-season, especially if their primary product is fresh produce. For business reasons, they need to operate on a year-round basis unless their infrastructure and other assets can be used for other purposes to generate revenue in the off-season. Furthermore, wholesale buyers need products throughout the year; food hubs that offer similar quality non-local products during the off-season are better positioned to keep the buyers engaged and committed to their business relationship. Nevertheless, with continued improvements in season extension and food preservation techniques; diversification of product lines to year-round products such as meat, dairy, and value-added products; and the overall increase of local supply, it may become increasingly financially viable over time for food hubs to deal exclusively in local and regional food products.

How Are Different Types of Regional Food Hubs Classified?

Regional food hubs are generally classified by either their structure or their function. One way to classify food hubs by structure is by their legal business structure, which

includes: nonprofit organizations (which often develop out of community-based initiatives), privately held food hubs (a limited liability corporation or other corporate structure), cooperatives (owned either by producers and/or consumers), and publicly held food hubs (often the case where a city-owned public market or farmers market is carrying out food hub activities). There are also a few food hubs that are operating without a formal legal structure, which are classified in the table below as “informal.” (Table 1.)

The legal structure of a food hub often influences its operation and function, particularly in such areas as capital investment, risk management, and liability exposure. For example, nonprofit food hubs have greater access to grant programs and donations than privately held food hubs because nonprofits are eligible for more Federal and State assistance programs than private entities. On the other hand, nonprofit food hubs have greater difficulty accessing loans, revolving lines of credit, and other forms of private investment than for-profit business entities. As another example, producer cooperatives have the advantage of tapping member equity and taking advantage of business services offered by cooperative extension programs, but find fewer grants and loan programs available to them than nonprofit organizations.

Food hubs can be functionally categorized by the primary market they serve. These markets can be delineated as:

- Farm-to-business/institution model
- Farm-to-consumer model
- Hybrid model

Under the farm-to-business/institution model, food hubs sell to wholesale market buyers, such as food cooperatives, grocery stores, institutional foodservice companies, and restaurants. Under this model, food hubs provide new wholesale market outlets for local growers that would be difficult for them to access individually.

While this is one of the primary purposes of a food hub, some food hubs focus on the farm-to-consumer model. In this case, the food hub is responsible for marketing, aggregating,

Table 1. Share of Regional Food Hubs by Legal Status and Market Model, 2012*

Legal Status	Number	Percentage
Privately held	67	40%
Nonprofit	54	32%
Cooperative	36	21%
Publicly held	8	5%
Informal	3	2%

Market Model	Number	Percentage
Farm-to-business/institution (F2B)	70	42%
Farm to consumer (F2C)	60	36%
Hybrid (both F2B & F2C)	38	22%

*Based on a working list of 168 regional food hubs identified by USDA and its partners.

packaging, and distributing products directly to consumers. This includes multi-farm community supported agriculture (CSA) enterprises, online buying clubs, food delivery companies, and mobile markets.

Under the hybrid model, the food hub sells to wholesale market buyers and also directly to consumers.

Conclusion

Having surveyed and interviewed many of the currently operating regional food hubs in the United States, USDA and its partners have formed a much clearer picture of the role of food hubs in our evolving food system. Two major takeaways include:

- Regional food hubs are striving to have significant economic, social, and/or environmental impacts within their communities: Even though many food hubs are relatively new, they demonstrate innovative business models that can be financially viable and also make a difference in their respective communities. Economically, they are showing impressive sales performance and helping to retain and create new jobs in the food and agricultural sectors. To varying degrees based on their business model and mission, many food hubs are also looking to leverage their economic impacts into wider social or environmental benefits for their communities. Socially, most food hubs are providing significant production-related, marketing, and enterprise development support to new and existing producers in an effort to increase the supply of local and regional food. In addition, quite a few food hubs make a concerted effort to expand their market reach into underserved areas where there is lack of healthy, fresh food. Environmentally, there are some food hubs that are encouraging their producers to use more sustainable production practices, as well as finding innovative ways to reduce their energy use and waste in the distribution system.
- The success of regional food hubs is fueled by entrepreneurial thinking and sound business practices coupled with a desire for social impact: Many food hub operators are skilled business people who have identified a challenge—how to satisfy retail and institutional market demand to source from small and midsize producers—and have deftly come up with regionally appropriate solutions that not only result in positive economic outcomes but also provide valuable services to producers and their wider community. Food hub operators represent a new kind of food distributor; one that is increasingly demonstrating a financially sound business model that can be both market and mission driven.

“THE SUCCESS OF REGIONAL FOOD HUBS IS FUELED BY ENTREPRENEURIAL THINKING AND SOUND BUSINESS PRACTICES COUPLED WITH A DESIRE FOR SOCIAL IMPACT. MANY FOOD HUB OPERATORS ARE SKILLED BUSINESS PEOPLE.”

While regional food hubs are showing tremendous potential to positively affect food systems change, USDA and its partners readily recognize that regional food hubs on their own will not be able to solve the myriad of distribution challenges—not to mention production and processing challenges—that hinder producers' abilities to take full advantage of the growing consumer demand for locally grown food. This will require greater engagement with the existing food distribution and wholesale industry (such as grower-shippers, specialty and broadline distributors, wholesalers, brokers, produce wholesale markets, and terminal markets) to determine how food hubs can complement and add value to the already critical role that these operations are providing in moving food to markets.

The good news is that this engagement is already occurring, as regional food hubs partner with produce distributors to offer such services as producer training and coordination, source verification, aggregation, and marketing that enable distributors and their customers' greater access to local and regional products. Furthermore, because food hubs are largely defined by a set of business practices and not by any one legal structure, produce distributors and wholesale markets are adjusting their operations to meet their customers' demand for source-identified local and regional products—essentially turning their businesses into regional food hubs. It is within the context of these shifts in new strategic partnerships and the transformation of business practices that the greatest potential for systems change in local and regional food economies can and will occur. ●

Resources

USDA
www.ams.usda.gov/foodhubs

Wallace Center
www.foodhub.info



COOPERATION: THE FINAL FRONTIER *A FARMER'S PERSPECTIVE*

By Monte Skarsgard

You see the words and phrases for it all over the place these days. Food Hubs. Regional Aggregation Points. Local Distribution Centers. The list of clever names has become so extensive that you almost can lull yourself into thinking that these are "new" concepts or ideas. Honestly folks, these are just different names for the tried and true practice of cooperation. And I am not talking about cooperation as a noun like in Co-Ops or some federally recognized business structure. I am talking about it as a verb, to cooperate.

We all remember this idea from as far back as elementary school—work together for a common goal. Embrace and cultivate symbiotic relationships. Understand that we can accomplish more as a team than we can ever hope to accomplish as a sum of individuals. So if cooperation is seemingly so familiar to us, why do we currently see it as the exception rather than the rule within our local food landscape?

I would argue that crossing this hurdle of learning how to cooperate with fellow local food producers is the final challenge for us to truly realize our fullest potential. We need to realize that our fate as farmers, ranchers, and artisan producers are all intertwined with one another. That when the local dairy does well, the local vegetable grower will also benefit from the dairy's success. For too long agriculture has been seen as

a zero-sum game, in that one can only win if someone loses. This, to me, is ridiculous and acts as a shackle that binds our local food movement to an antiquated mindset.

So then what does a cooperative foodscape look like? For our farm here in the high desert of New Mexico, it means that we have to remain very realistic in our strengths as well as our weaknesses. The buzz surrounding the local food movement has created an unattainable goal for farmers that we have to be able to grow everything. To raise everything. Like we need to milk cows, collect eggs, and harvest heirloom tomatoes all on the same farm. Why? As my mom used to say (and still does) "Do what you do well." Usually what we do well, we love doing. And so trying to be the jack-of-all-trades will inevitably leave things to fall through the cracks. I am not advocating for monoculture either. But rather that we look at our farms and ranches with critical and honest eyes.

When we practice this sort of tough-love with our farms, and ourselves an amazing feeling starts to shine through, vulnerability. This feeling that I cannot be everything to everyone. Realizations that someone can grow something better than I can. A sense that my Superman cape has fallen off. Then comes a deep breath and an understanding that all we have to do is do what we do well.

PICTURED: SKARSGARD FARMS HOOP HOUSE.



Once this veil of having to be a local food Hercules has been lifted, we are free to see what we truly are, a community of producers. The pastry gal does not need to make loaves of bread. The egg provider does not need to sell meat. The veggie farm does need to sell apples. But together, all of us become the faces that make up the local food landscape. Or local foodscape.

But where do we go from there? Because it is not enough to just be a bunch of independent producers. We need groups, teams, networks, or whatever you want to call them to come together to enjoy strength in numbers and solidarity. Even in the Animal kingdom there is empowerment in numbers. Our local foodscape is no different. We need to join together to not only survive but to succeed.

For our farm, this has taken shape as a cooperative CSA (Community Supported Agriculture) model where we grow a lot of food on our 40 acres, but also bring in some wonderful diversity from regional growers.

There is not a better example of this type of cooperative partnership than what we have with Excelsior Orchards in Paonia, Colorado. Albuquerque is plagued by late frosts. The May Day frost has nipped us in two out of the last four seasons. So, needless to say, we live in a terrible place for pome and stone fruits. Paonia is one of the best fruit growing regions in the West, but with a population of 1,650 people, there is no market for a 20-acre orchard.

In a traditional CSA, we would tell our members that they are not going to get fruits since we cannot grow them. In a traditional market, Excelsior would be selling all of their fruit to a fruit broker who then would turn around and sell the fruit to grocery stores. In that lose/lose scenario, our members do not get to enjoy amazing fruits and Paul and Elane, who run the orchard, have to sell the fruit at a discount to a string of middlemen. In order to break that cycle, the people in between the agricultural fields and the dinner plate have to be reduced if not eliminated all together. The best way to do that is for growers to work together, sell together, and promote one another.

Now, through our CSA, Excelsior's fruit does not end up as a faceless piece of fruit in the anonymous stacks of a grocery store, but rather a celebrated event that our members look forward to every season. Within this partnership of growers, no story is lost. Our members truly do get to know their farmers and know their food.

“WE WORK WITH LOCAL BAKERS, RANCHERS, DAIRYMEN/WOMEN, VALUE-ADDED PROVIDERS, AND COFFEE ROASTERS. ADDITIONALLY, WORKING WITHIN A FAMILY OF PROVIDERS IS COMPLETELY SCALABLE. IT CAN WORK WITH ONLY TWO BUSINESSES WORKING TOGETHER AND IT CAN WORK WITH 20 BUSINESSES.

But this cooperative partnership does not have to stop with growers. We work with local bakers, ranchers, dairymen/women, Value-Added providers, and coffee roasters. Additionally, working within a family of providers is completely scalable. It can work with only two businesses working together and it can work with 20 businesses. The only limiting factor is moving past this paradigm that we have to do it all by ourselves.

For our farm, this cooperative CSA model has allowed us to grow and sell our produce on a year-round basis. We provide our members with a wonderful and diverse fresh food offering 52 weeks a year. Being able to maintain this consistency with our members allows us to focus on our fields in the spring rather than running around trying to find CSA members for the season. They are already with us, so it is much easier to do a crop plan for what our needs will be each year. Then we can hit the fields knowing what the demand will be rather than guessing what it might be.

Watching this model unfold over the last 10 years has been a wonderful learning experience for me. I truly feel like we are just seeing the tip of the proverbial iceberg right now as well. The benefits of a cooperative marketplace are endless and it offers the smaller producers a way to compete with the big box stores. Maybe David will not beat Goliath in the end, but he might be able to run a sustainable small farm and enjoy the American Dream. ●

“FOR TOO LONG AGRICULTURE HAS BEEN SEEN AS A ZERO-SUM GAME, IN THAT ONE CAN ONLY WIN IF SOMEONE LOSES. THIS, TO ME, IS RIDICULOUS AND ACTS AS A SHACKLE THAT BINDS OUR LOCAL FOOD MOVEMENT TO AN ANTIQUATED MINDSET.”

ECONOMIC IMPLICATIONS OF FARM TO SCHOOL FOR A RURAL COLORADO COMMUNITY

By Allison Gunter and Dawn Thilmany

“WE WILL EXPLORE THE LOCAL ECONOMIC IMPACT OF A SPECIFIC COLORADO SCHOOL DISTRICT’S LOCAL FOOD PURCHASING PROGRAM USING MARKETING DATA ON PURCHASES, LIKELY SUPPLIERS, AND THE ASSUMED LINKAGES BETWEEN THE COMMUNITY’S BUSINESSES AND THE NEW DISTRIBUTION ENTERPRISE.”

Increased demand and sourcing of local food by wholesale and institutional buyers is giving rise to new economic development opportunities. An increasing number of communities that lack appropriately scaled processing, aggregation, and distribution systems are exploring how to establish new local food enterprises as a way to relocalize mainstream markets in a cost-effective manner (Day-Farnsworth, et al., 2009). But given the necessary investments in infrastructure and unproven business models, should communities invest in these mid-scale supply chains?

This paper seeks to answer this question by analyzing one of the proposed benefits of mid-scale value chains: the potential positive economic impact within communities when food supply chain activities occurring within a region are increased or shifted to more locally owned and controlled enterprises. More specifically, we will explore the local economic impact of a specific Colorado school district’s local food purchasing program using marketing data on purchases, likely suppliers, and the assumed linkages between the community’s businesses

and the new distribution enterprise. This analysis is not only driven by sales that are captured by a local business, but also seeks to capture the added economic activity that occurs when some economic activity (owner’s income and earned wages) are captured and re-spent in the region.

There are two main contributions of the study. One, a widely used economic model (IMPLAN) was customized to more accurately consider the direct and indirect linkages that a relocalized food marketing strategy might have within a community. This is necessary because the direct marketing agriculture sector is not well represented in IMPLAN, so customization is essential to determine a realistic economic impact on the local economy. The second contribution of the study comes from analyzing multiple scenarios, each based on different assumptions, with a comparative discussion of those results. The assumptions underlying different scenarios include how to define the local region as well as differences in gains from increased local food sourcing for both net and gross impacts. This study provides a guide for how a researcher



might begin to customize existing models to more accurately represent direct marketing food enterprises, while at the same time recognizing that money spent on local farms and foods is not new and any model should consider countervailing effects (to account for previously spent monies now diverted from other sectors).

An Overview of Regional Economic Modeling

An economy is a complex system; a change in production in one industry has a direct effect, but it also has many other effects. The production of support industries will be affected, wages and number of workers will be affected, taxes will be affected, and many other aspects of the economy will all be affected. IMPLAN was designed to enable users to make an accurate assessment of how a change in one industry will affect the rest of an economy, providing a framework to help the user track the flow of money from one entity to another throughout the economy with some customization by broad economic sectors.

IMPLAN is a useful tool for researchers, but it is not without its weaknesses. Because IMPLAN estimates are based on regional and sometimes national averages, for businesses that behave differently from the average (like a small farmer involved in direct marketing), IMPLAN does not always provide accurate estimates of how these types of sectors truly behave. In order to overcome this weakness, we customized industry sectors by utilizing a combination of survey data, National Agricultural Statistics Service data, and existing IMPLAN data. Without going into great detail, it is important to note that to complete this analysis, the research team customized the employment, output, value-added, and also, shifted marketing and transportation activities to the farmer(s) instead of a middleman. These changes were made to more accurately capture the role of producers who changed their marketing strategies to support Farm to School sales in the targeted region.

Once representative sectors were created, the next step was to decide how to frame the IMPLAN geographic region in order to determine the economic impact of Farm to School. In the national discussion of localized food systems,



“IN THE NATIONAL DISCUSSION OF LOCALIZED FOOD SYSTEMS, THERE IS A DEBATE ON EXACTLY WHAT LOCAL MEANS. ‘ACCORDING TO THE DEFINITION ADOPTED BY THE U.S. CONGRESS IN THE 2008 FOOD, CONSERVATION, AND ENERGY ACT (2008 FARM ACT), THE TOTAL DISTANCE THAT A PRODUCT CAN BE TRANSPORTED AND STILL BE CONSIDERED A LOCALLY OR REGIONALLY PRODUCED AGRICULTURAL FOOD PRODUCT IS LESS THAN 400 MILES FROM ITS ORIGIN, OR WITHIN THE STATE IN WHICH IT IS PRODUCED.’”

there is a debate on exactly what local means. “According to the definition adopted by the U.S. Congress in the 2008 Food, Conservation, and Energy Act (2008 Farm Act), the total distance that a product can be transported and still be considered a locally or regionally produced agricultural food product is less than 400 miles from its origin, or within the state in which it is produced” (Martinez, et al., 2010, p. iii). Given the disjointed discussion of local and exactly what it means, we decided to study the economic impact in two different regions and provide a range of impacts that may be of interest. To get a sense of the hyper-local impact, the first region includes only two counties (where the school district is located and the neighboring county). Then, to look at a more regional impact, the second region includes the five Colorado counties with the highest dollar value of direct sales in addition to the county neighboring the school district.

Farm to School Economic Scenarios

Utilizing these two regions, scenarios were developed to determine outcomes based on differing assumptions. Scenario one is the most simplistic; it includes the hyper-local region with no modifications to the IMPLAN model, and assumes that all purchases made by the school district are all new demand (no money was taken away from any other sector in the region). In this scenario, only vegetable purchases of \$20,900 are considered as fruit is grown outside the hyper-local region. The assumption of all new demand could be reasonable; all distributors that currently work with the school are located

outside the region, mostly in Denver; and support activities for the conventional wholesale sector are also located mostly outside the region. But, it should be noted that a switch to farm-to-institution sales would represent a zero sum game for any entity that is regionally focused on the Denver and Weld communities.

Scenario two is exactly the same in terms of sales activity, but we move the impact estimates from the hyper-local region to the larger six-county region, now including fruit purchases from the West Slope, leading to a total of \$39,125. Here, the assumption of all new demand is harder to rationalize. Given the larger region and possibility of wholesale activities occurring throughout the region, money being spent with fruit and vegetable farmers who sell to institutions is most likely money not being spent on other economic sectors in the region. Subsequently, scenario three attempts to more accurately model by assuming demand simply shifts from wholesalers in the region to producers in the region. The same positive shock attributed to the fruit and vegetable farming sectors is taken away from the existing activity in the wholesale sector. This result produces a net impact to the region rather than the gross impact provided in scenario two.

The fourth and final scenario is the most complex but likely the most accurate. Similar to scenario three, the fourth scenario will include the countervailing effect of demand shifting from the wholesaler to the producer (providing a net impact),

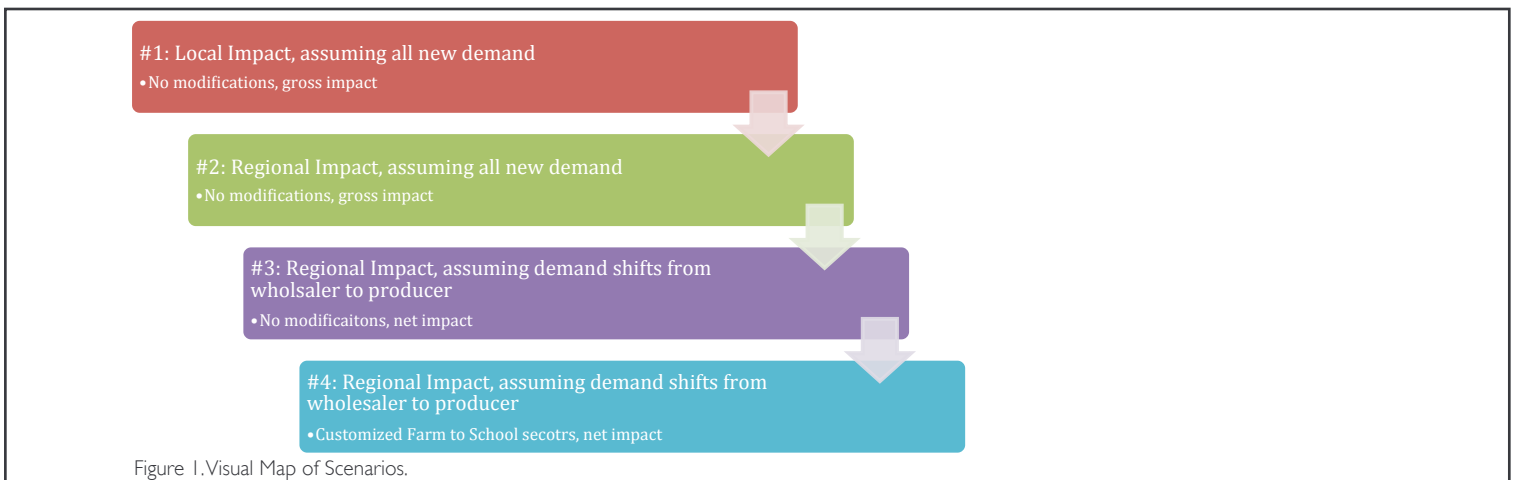


Figure 1. Visual Map of Scenarios.

Table 1. Output Impact by Scenario.

	#1: Local, gross	#2: Regional, gross	#3: Regional, net	#4: Regional, net, customized
Direct	\$20,900	\$39,125	\$0	\$0
Indirect	\$5,352	\$8,330	(\$541)	\$267
Induced	\$6,825	\$12,277	\$1,459	\$7,613
Total	\$33,077	\$59,733	\$918	\$7,880

but this time the producer is a customized sector that more accurately reflects the small farmer that sells products directly. Because it draws on primary data collected in Colorado, this scenario should provide the most realistic results of all the scenarios. Figure 1 provides a visual map of these different scenarios.

Results and Discussion

As with past studies (Tuck, et al., 2010; Swenson 2006, 2010; Hughes, et al., 2009), a positive economic impact on the local community was found from increased purchasing of locally produced foods. But that impact is quite small and may or may not justify the cost (private and/or public) of the new investments necessary to build needed infrastructure, particularly when the net rather than gross impacts are analyzed (Table 1). Moreover, that positive impact is dependent on some important linkages between the new food distribution enterprise and other stakeholders (workers, owners) in the community. Since purchasing local food merely shifts purchasing from one sector to another, it is not fundamentally changing the amount of money being spent, but rather, how impactful the sectors are to their community economies.

Our model is built on one particular tenet: any increased share of the food dollar that goes to a local farmer will lead them

to spend more in their community (compared to a distributor with corporate headquarters in another community). But because the direct economic impact to the community is merely the marginal difference between a purchase from a farmer and a wholesaler, that impact is going to be relatively small unless even greater linkages are created (i.e., sufficient volumes to justify new input businesses such as seed and feed stores or new processing facilities for value added activities). In short, although capturing the marketing margins of food distribution locally has great appeal to any farm or community, understanding the true benefits of relocalization requires careful deliberation and economic analysis.●

Resources

"Rebuilding local food systems: marketing and economic implications for communities"

<http://digitool.library.colostate.edu/webclient/DeliveryManager?pid=126976>

USDA Agricultural Marketing Services

<http://www.ams.usda.gov/AMSV1.0/foodhubs>

Farm to School

<http://www.farmtoschool.org>



"SINCE PURCHASING LOCAL FOOD MERELY SHIFTS PURCHASING FROM ONE SECTOR TO ANOTHER, IT IS NOT FUNDAMENTALLY CHANGING THE AMOUNT OF MONEY BEING SPENT, BUT RATHER, HOW IMPACTFUL THE SECTORS ARE TO THEIR COMMUNITY ECONOMIES."

LAND USE PLANNING AND SPATIAL CONFIGURATION **BENEFIT COMMUNITY AGRICULTURE AND STIMULATE ECONOMIC DEVELOPMENT**

By Gary Austin

Billions of dollars are lost from states involved in commodity agriculture that market crops and livestock globally and nationally (Menter, 2011). Increasing community agriculture improves municipal, community, and state economies due to multiplier effects from direct sales of locally produced goods (Enshayan, 2009). Currently, limited local supply and high demand for local produce establishes an environment where new businesses can flourish, especially in metropolitan counties and rural counties located nearby (Martinez, 2010).

This paper addresses the production, processing, distribution, marketing, access, partnerships, and waste management issues that contribute to the successful development of new community agriculture businesses. Governmental policies, programs, and planning initiatives can foster community agriculture so that it makes sustained contributions economically, socially, and environmentally. In order to succeed, community agriculture needs the support of proactive urban planning policies and physical planning to locate productive lands that create positive relationships with other urban uses and the natural environment.

Local Food Supply

In the Greater Treasure Valley (Boise, Idaho) \$5.6 million of \$1.87 billion spent annually on food is purchased directly from local producers (Menter, 2010). This suggests a terrific opportunity to expand the supply of locally produced products. If we consider the value of all edible agricultural products sold directly to individuals in Idaho (at farmers' markets, farm stands, etc.) it represents only 0.1% of the value of all agricultural products sold. This means that virtually all of the agricultural productivity of Idaho is concentrated in a few commodity crops, which are exported (USDA, 2007).

Demand for Local Food

Opportunities for new farmer's to sell locally grown foods is increasing rapidly. The number of shareholders in existing CSA (community supported agriculture) farms grew 50%

between 2007 and 2009. Between 1998 and 2009, there was a 92% increase in the number of farmers' markets in the U. S. (Martinez, 2010) and direct sales increased 49% between 2002 and 2007. CSA farms are projected to increase from 3,000 to over 18,000 by 2020 (Local Harvest, 2010). Locally grown food sold to intermediates, like grocery stores, is also growing (Martinez, 2010), and the Farm-to-school program is also a growing segment in the local foods market.

Fresh vegetable production in Idaho is 5.8 acres per 1,000 people, which is below the national average. Sweet corn, cucumbers, asparagus, bell pepper, broccoli, and carrots are among vegetables undersupplied by the conventional agricultural system. Another demand factor is the increased consumption of vegetables and melons, which rose 5.5% between 2002 and 2007 (USDA, 2007).

Community Economic Benefits

As referenced above, almost all food consumed locally is imported (Menter 2010 and 2011) and because of this local communities are missing out on economic opportunities. Local farmers purchase materials, equipment, and financial services, stimulating the local economy and providing an indirect benefit. Their locally produced food and payments for labor directly benefit the community. When employees and local suppliers purchase services and goods, money re-circulates through the local economy (accrued benefits).

These direct, indirect, and accrued benefits create a multiplier effect, where one dollar spent generates more than one dollar of economic benefit (Martinez, 2010). Commodity agriculture with multipliers of 1.44, 1.56 and 1.53, compare to 1.86, 1.83 and 1.94 for value of food produced, labor income, and job multipliers, respectively (Enshayan, 2009). The impact of new local foods businesses is surprisingly large. If residents bought 15% (instead of the current 2%) of their food from producers within the two counties comprising metropolitan Boise, then local farmers would earn \$18,000,000 in new income annually (TVAC, 2010).

“GOVERNMENTAL POLICIES, PROGRAMS, AND PLANNING INITIATIVES CAN FOSTER COMMUNITY AGRICULTURE SO THAT IT MAKES SUSTAINED CONTRIBUTIONS ECONOMICALLY, SOCIALLY, AND ENVIRONMENTALLY.”

Promoting New Community Agriculture Businesses

Communities can begin to increase their local food production through proactive land use planning geared toward increasing community agriculture. This effort can be initiated at any level by creating a land inventory that maps fertile soils, slopes, aspect, early frost microclimates, vacant parcels, urban development, vehicular and pedestrian access, schools, public land, and community centers. The inventory maps are the bases for gaining the public's input (often via public planning charrettes). Overlaying the suitability factors identified in the inventory will yield desirable urban agriculture parcels.

Production

Agricultural economic development requires attention to production, processing, distribution, marketing, access, partnerships, and waste management. Proximity, land cost, soil fertility, and water are production factors for new farms. The most suitable parcels near the town should be designated as permanent uses on future and existing land use and zoning maps. Dave Swenson (2011) at Iowa State University has developed a system to match metropolitan demand for local agricultural products to the land needed to satisfy those demands.

Processing

For agriculture producers to get their products to market, the products must be processed. Fruit and vegetable products require cleaning and packaging; milk products must be pasteurized and packaged; and meats must be processed and packaged. These steps in the process of agriculture production provide opportunities for entrepreneurs, which in turn creates needs that can be filled by local financial institutions and economic development organizations to help plan, stage, and fund the new business development in support of this new local agriculture market.

Distribution

Ideally, and most commonly local farmers distribute their own products, but non-profit or cooperative distribution centers have allowed small producers to compete more effectively when supplying products to institutional clients or grocery

store chains. Planning support of distribution of local food includes creating space and administrative support for farmers' markets, allowing sales of agricultural products from farm parcels, and facilitation of economic development summits to match growers, processors, and distributors.

Marketing

Direct sales at farmers' markets are critical for most local-food growers. These markets benefit the local economy since they create positive multipliers (indirect = 1.58; accrued = 1.47; jobs = 1.47) (Otto, 2005). Governments or non-governmental organizations (NGO) can create the infrastructure necessary for local farmers and customers to interact. Establishing a program at the farmers' market to facilitate the use of electronic benefit transfer (EBT) cards (these cards are part of the federal system that replaced food stamps) has been shown to increase market patronage.

Government agencies including school districts and colleges can dramatically increase the market for local products by requiring that a minimum portion of the food catered or served by them are from local sources. The Woodbury County Board of Supervisors in Iowa took this action and created an annual market worth nearly \$300,000 (APA, 2007).

Access

Economic development agencies, Cooperative Extension Services, or NGOs such as Growing Power, can encourage new business development through training and technical assistance in production, processing, marketing, distribution, tax, labor, and environmental rules (APA, 2007). Training and technical assistance is important since about 25% of those who begin local food businesses do not have previous experience in agriculture (Woods, 2009). Cities and counties can establish low interest loan pools to fund capital improvements to get businesses started or to help them expand.

Partnerships

As discussed throughout this issue of *Rural Connections*, local food hubs are thriving in the U.S. and local agricultural enterprises find that partnerships benefit the customer and on-farm sales. Working together, growers sell the products of

Figure 1. Housing for owners and workers around interior growing grounds. Photo simulation.

Currently, an "agricultural" land-use designation is treated as transitional land intended for future urban development. This immediately increases the value of the land, its taxes, and infrastructure expectations. Since proximity is important, agriculture within the city should be permitted by right, instead of as a conditional use (Figure 1). Furthermore, implementing a transfer of develop rights from agriculture parcels to development parcels will preserve local food capacity by protecting the land from real estate speculation and tax increases that would eventually eliminate all local farming from within the city. There are many other planning measures adopted by communities that encourage local food businesses including discounted water rates, permitting rooftop greenhouses, increasing the number of hens allowed within city limits, mixing community agriculture into all zones with regulations controlling the use of pesticides, noise, dust, and stormwater.



Figure 2. One-acre organic farm operated by Elizabeth Taylor.



other local producers so the customer can procure a wider range of goods, including eggs, honey, soap, flowers, bread, cheese, fruits and vegetables, etc., from a single outlet. Another partnership advantage of local food hubs is self-financing of expansion or start-up businesses that expand the capacity of the group.

Waste Management

Community's considering land use permitting agricultural production need to consider the treatment of stormwater runoff and solid wastes to avoid conflicts with neighbors and to maintain a clean environment. Effective treatment in vegetated swales or infiltration basins removes nitrogen and bacteria from water allowing limited reuse. Similarly, composting of organic waste and reuse leads to efficiency and lower input costs. Since local agriculture is highly visible, permanent plantings to form screens and buffers from the waste treatment need to be required by ordinance to contribute to the open space system, wildlife biodiversity, and aesthetics of the city.

Direct Farmer-to-Consumer One-Acre Farm

Although the number of local farms is rapidly increasing, they

are concentrated in metropolitan (50%) and adjacent rural counties (30%). In more remote rural towns, a local food hub may need to consider a combination of programs to be profitable. These could include farm-to-school contracts, sales to intermediate buyers, and direct-to-consumer sales. There are numerous instances, however, that small farm operations can support the farmer and a community. Take Elizabeth Taylor for example. For 20 years, Ms. Taylor has been supported almost entirely through the direct sale of her produce to a community of about 24,000 people. She has produced 45 varieties of organic vegetables and salad greens on her one-acre organic farm located approximately 50 miles north of Moscow, Idaho (Figure 2).

Spatial Distribution

The location of community agriculture need not compete with urban development for space. Most towns own land that remains undeveloped for many years and other government agencies have lands that can be managed for multiple uses. These lands can be leased to farmers or provided as a farming incubator to establish businesses and test crops or horticultural methods. Figure 3 illustrates that flood plains can

Figure 3. Local organic farming with runoff treatment within the flood plain. *Photo simulation.*

Along the community growth limit line (area of impact line) community agriculture provides a buffer between urban development and commodity agriculture in the county. This planning scheme can help defend the town from suburban and exurban sprawl that consumes prime agricultural land and sensitive habitat.



“THE LOCATION OF COMMUNITY AGRICULTURE NEED NOT COMPETE WITH URBAN DEVELOPMENT FOR SPACE. MOST TOWNS OWN LAND THAT REMAINS UNDEVELOPED FOR MANY YEARS AND OTHER GOVERNMENT AGENCIES HAVE LANDS THAT CAN BE MANAGED FOR MULTIPLE USES. THESE LANDS CAN BE LEASED TO FARMERS OR PROVIDED AS A FARMING INCUBATOR TO ESTABLISH BUSINESSES AND TEST CROPS OR HORTICULTURAL METHODS.”

be used, especially for organic agriculture. If excess nutrients and sediment are prevented from entering the river and wildlife can pass along the river edge then organic agriculture can be a positive land use.

Residential development features little visual screening or useable open space. Figure 4 illustrates remedies of these negative consequences while providing ecosystem services. Plans for community agriculture focus on the town-county interface where 1-10 acre parcels are available. However, farms surrounded by mixed-density housing occupied by the farmers and their employees (Figure 1) integrate uses positively, particularly when restored brownfield sites, such as sawmills or landfills, can be repurposed.

Urban agriculture can be partnered with adjacent stormwater management facilities where water can be captured for reuse. Similarly, associations with biofuel, willow or poplar plantations, and urban forestry are beneficial in windy or semi-arid climates. Agriculture can also serve as a buffer for wildlife corridors or habitat, sports fields, and trails.

Conclusion

Elected officials and economic development officers in rural towns can foster new agriculture businesses through planning changes. Citizens can do their part by initiating proposals suggested above and supporting new businesses with their patronage. Local production and sale of food increases food security and social capacity, improved nutrition, reduced energy use, and even educational opportunities. For these and the clear economic benefits community agriculture should be a vigorously promoted diversification strategy in towns and near metropolitan cities. ●

Figure 4. Community agriculture provides open space.

This image suggests orchard or nut trees flanking a community garden (foreground) and market agriculture.



DEVELOPING A HEALTHY FOOD HUB IN RURAL NEVADA:

COMMUNITY-BASED STRATEGIES FOR ECONOMIC REVITALIZATION AND FOOD SUFFICIENCY

By Quest Lakes

A gale force wind was blowing and it was beginning to snow, but fifth graders at Dayton, Nevada, elementary school were excited to be outside working in their organic garden, harvesting the potatoes and garlic to make soup – part of their teacher's health and nutrition lesson for the day. USDA Rural Development's Kelly Clark captured the student's excitement in photographs as she toured the school garden to see how the USDA's Know Your Farmer, Know Your Food initiative funding was being used by a rural Coalition called Healthy Communities, to implement organic school gardens in seven schools in the Lyon County, Nevada, school district. Her photos ended up on the cover of the USDA's new Know Your Farmer, Know Your Food Compass.

The organic school gardens are just one part of a coordinated effort by Healthy Communities Coalition, a collaboration of hundreds of community volunteers and dozens of local, state, federal, and tribal agency partners, to solve multiple challenges in a rural three-county region of Northern Nevada. Much of the region is designated a "food desert" by the USDA – an area lacking access to fresh produce. To complicate matters, the region was hit hard by the economic collapse and has had one of the highest unemployment rates and home foreclosure rates in the nation for more than three years, and requests for food assistance from area food banks has increased exponentially since 2008. At the same time, a recurring theme from community members and staff from local schools, social service and health care agencies was the desire for affordable, accessible, fresh, local produce.

USDA NIFA Grant Kick-Starts Community-Based Solutions
In a stroke of good luck, Healthy Communities was awarded a USDA Community Food Projects Grant in 2010, and the combination of training for Coalition staff and funding for effective projects to address local hunger, sparked a chain of events that addressed most of the food challenges at once, but from several angles. The Coalition partnered with diverse groups to create a unique "healthy food hub," one of the first in Nevada, that promoted ties between local farmers and under-served communities in a system of mutual support that increases sustainability and profitability. Far from competing with any of its many partners, the Coalition simply assists with coordination between local food suppliers and local food consumers with the added goal of bringing everyone together to solve the significant food insecurity issues in the three-county region. This "developing healthy food hub," includes community and school gardens and hoop houses, volunteer-powered food pantries, and food aggregation, distribution, and coordination among community volunteers and many agencies that are working to run emergency food distribution until food insecurity issues are solved.

Access to Resources and Training

In his essay, "Fish, Pies, the Commons and Economic Development," Ed Whitfield uses the metaphor of fishing to describe the need for both training AND access to resources. Whitfield writes, "...that brings me to the 'great fish lie.' You have all heard it: 'Give a person a fish, they eat for a day; teach a person to fish, they eat for a lifetime.' It's a vicious

PICTURED: TEEN INTERNS AT THE FIVE-ACRE DAYTON COMMUNITY GARDEN. PHOTO BY WENDY MADSON OF HEALTHY COMMUNITIES. USED BY PERMISSION.



lie...Knowing how to fish will not feed you at all. You have to also have access to a water hole – lake, ocean, river or stream – someplace where fish can be found – and even then, you need access to some fishing...tools and equipment ...” Keeping this philosophy in mind, the Coalition’s first step in creating a food hub was addressing the shortage of residents trained in sustainable gardening practices, and an absence of the essentials needed to produce more local food.

The Coalition addressed these complexities immediately by coordinating training in sustainable agriculture in the high desert climate, and access to land and water and basic equipment and gardening materials. Local organic farmers Steve and Marcia Litsinger began training adults and teens in organic gardening, composting, and hoop house construction. The Coalition began connecting people to the land where they could develop community gardens. The result: over a period of two years, community members, farmers, schools, nonprofits, businesses, and the Coalition’s garden center, Community Roots, have helped implement and maintain seven organic school gardens, five community gardens and composts, and five community hoop houses. The impact on reducing local hunger and increasing food security and self-reliance has been immediate and meaningful. During the summer of 2011, one of the community gardens produced about 7,000 pounds of produce that was donated to local food pantries. This is a timely development – the amount of food available to food banks from national and regional sources has dwindled, at the same time that the percentage of residents in this rural Nevada region requesting food pantry assistance has shot up to about 20% of the population.

Food Hubs and Economic Revitalization

Another piece of the puzzle involved connecting small local farms to new markets that were difficult for them to access on their own. The Coalition began connecting the region’s farmers and food distributors to new markets like food co-ops, farmers markets, garden centers, local restaurants interested in “Farm to Table” concepts, and social services and food pantries that want to infuse fresh, local food into their programs. The farmers are also coordinating their planting schedules and choice of crops with an eye to promoting variety in local produce, and reliable supplies of locally produced foods. The result is a rapidly developing, interrelated system that promotes economic revitalization, regional food sufficiency, and access to affordable good nutrition.

The Food Hub/Food Security Connection

The Coalition’s unique food hub includes two “volunteer-powered” food pantries where people in need of the service help operate the pantries with scaffolded management and Coalition staff oversight. Excess fresh food from the community and school gardens and farmers’ markets is incorporated into the food boxes packed at the pantries, so that people have more access to nutritious food. This system not only helps solve hunger issues, it does so without the use of taxpayer dollars.

Visions for the Future

The Coalition is organizing a Multi-Sector Regional Food Sufficiency Council including representatives from community groups, nonprofits, food banks, USDA, social services, school districts, groceries, etc. so that food pantries can more efficiently coordinate regionally and share assets, distribution routes, partners, etc. The Council might also take the lead in infusing local food into the Human Services/Social Services sector. The first steps will be mapping assets and then problem solving to close gaps in service and overcome high food distribution costs in a rural region that covers thousands of square miles.

Light Processing and Distribution Under a Central Food Hub Label

The Coalition is also working with local, state, and federal partners to create community space and equipment for local food to be stored, lightly processed, packed, palletized, and possibly even sold under a regional healthy food hub label with a shared market plan, all while allowing small farms to maintain individual identities.

Mobile Farmers’ Markets, Food Co-Ops, and Nutrition Programs

The Coalition is working with governmental partners to access and distribute EBT (Food stamp) machines, WIC (Women Infant and Children nutrition programs) technologies, and USDA senior food coupons and market the ability for farmers, food co-op members, and farmers’ markets to use them. Another goal is to fund a mobile farmers’ market/ fresh produce truck that will serve both low-wealth areas with produce provided at a lower price point, and higher-wealth areas with produce at a higher price point, so that farmers can actually make a living with their high quality, locally grown, organic produce. These projects will make nutritious food accessible to people of all financial means.

Developing a healthy food hub has allowed people in this rural section of Nevada to beat back an alarming, rapid increase in hunger and to craft an effective, collaborative strategy to reverse an economic downturn of historic proportions. The newly formed connections and informal networks of support and kindness have bloomed in surprising ways. People of all ages and from all backgrounds are working together to create “food secure communities” with more access to local, healthy food, and greater economic opportunities for local farmers, ranchers, and food entrepreneurs. ●

Resources

Wealth Creation and Rural Livelihoods community of practice (WCRL)
www.ruralwealth.org

Know Your Farmer, Know Your Food Compass
<http://www.usda.gov/documents/KYFCompass.pdf>

Rural Policy Research Institute (RUPRI) Center for Rural Entrepreneurship
<http://www.rupri.org>

REBUILDING ALASKA FOODSHEDS: NO SHORTAGE OF GOOD IDEAS

By S. Craig Gerlach and Philip A. Loring

A 1982 report entitled “Alaskans Feeding Alaskans,” published by the Alaska Agricultural Action Council (AAAC), begins with the reprint of a letter dated June 15, 1982, to former Alaska Governor Jay Hammond, from W.I. Palmer, AAAC chairman. Palmer wrote,

Alaska’s agricultural land base provides the opportunity to produce dependable supplies of wholesome foods for Alaskan families and a more stable lifestyle for thousands of Alaskans. ... Currently, Alaskans are dependent on the “outside” for more than 90% of their food. This results in only a four-day supply of many food staples in the cities as well as higher prices and lower quality. (p. 3).

Thirty years later we are still talking about how to improve Alaskan food production, and still worrying about why so much of our food comes from outside the state. To this day only a mere three to five percent of the agricultural products consumed in Alaska are produced in Alaska (Caster, 2012), and progress toward the “field of golden grain at the end of the rainbow,” that Palmer optimistically envisioned in the closing words of his letter is slow (1982, p. 3). Despite renewed interests in local food production, we may well be losing rather than gaining ground.

Indeed, communities in rural and urban Alaska are more dependent on imported food and fuel than ever before, and as a result Alaskans are increasingly vulnerable to the instabilities of the global food and energy system (Figure 1) (Gerlach et al., 2011). An estimated 13.5% of Alaskans are food insecure (Feeding America, 2011), a figure that is still lower than the national average of 16%, but it is growing. Food insecurity rates across the more rural parts of the state are upwards of 20 to 30% (Feeding America, 2011). Likewise, the impacts of a

changing climate, and a rapidly changing socioeconomic and ecological landscape further challenge the ability of Alaskans to put locally grown or caught foods on the table (Loring & Gerlach, 2009).

These details show the downside of the Alaskan food system and supply chain, but there is an upside too, a new breed of agricultural and food system entrepreneurs who are working hard to rebuild Alaska foodsheds (Kloppenborg et al., 1996)—trying to recover local culinary traditions and to regain a measure of food security and sovereignty through solutions that break the back of the industrial agricultural paradigm. In the Delta Junction region, for example, there is a growing tradition of working with food crops and cereal grains such as barley, canola, wheat and flax, and with livestock systems based on bison, elk, yak, and other alternatives to the cattle/swine/corn complex. This new breed of entrepreneurs also includes processors, local distributors, restaurant owners and chefs, and others trying at every stop on the food chain to shift to a model of local production for local consumption. Even in the most remote areas of the state, including some communities north of the Arctic Circle, people are trying to revitalize a tradition of “outpost-style” gardening with hoop houses and greenhouses and regional community-shared and community-supported agriculture programs (Loring & Gerlach, 2010).

However, despite these good ideas and motivated individuals there remain significant and persistent barriers that challenge innovation and change. The most immediate challenges include a lack of physical/built infrastructure for production, processing, and storage; others include human resource issues regarding the number of qualified and trained individuals, a lack of social

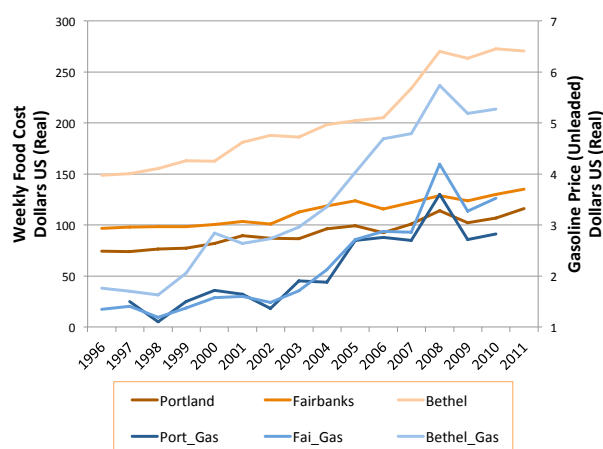


Figure 1. Weekly food costs for a family of four (orange) and gasoline prices (blue) for Fairbanks, AK, Bethel, AK, (a rural hub community) and Portland, OR. The relationship between food and fuel costs is well understood, but amplified in places like remote Alaska. Note that food costs in Portland and Fairbanks do not appear to have been affected by the spike in fuel costs that occurred in 2007 and 2008, but food cost in Bethel jumped more than \$50 over this period and did not recover afterward. Data from UAF Cooperative Extension Service.

services for these professionals, and state and federal policies regarding food safety, quality, and marketing that are designed for industrial food production and are overly cumbersome and too expensive for the small-scale producer. The food system is effectively split in Alaska—among those with the time, skill, financial resources and opportunities to fish, farm, or harvest local foods for themselves and their families—and those who, whether out of preference, expedience or both, patronize conventional “box store” markets and the unavoidable “lock-in” trap of the global food production and distribution system (Meadow, 2012).

For example, there are many opportunities to develop an in-state marketing system for red meat and other protein products, but these are largely stalled. Alaskans eat a variety of animal products, including from locally raised domestic livestock and as well as wild game and fish. But these are only minor components of the total animal protein consumed statewide, and between 2001 and 2006, 85% of red meat consumed in Alaska was imported from outside sources (Paragi et al., 2010). Some are trying to increase red meat production in the state, experimenting with elk, reindeer, plains bison, and other smaller livestock such as goats and sheep on a variety of scales (Figure 2). What appears to be holding up the coalescence of these activities into a viable sector is a striking lack of infrastructure for butchering, processing, and marketing the end products. Up-front costs for the purchase of breeding stock, feed, and expensive hay needed for overwintering continue to pose problems for growers, as do the challenges of developing infrastructure in the many remote communities that are not accessible by road. Processing facilities for slaughter are likewise limited, but new ideas include on-barge processing facilities that can move live animals through from kill to USDA inspected packaged meat products. Finally, food safety inspection policy at the state and federal level are also proving too costly and too cumbersome, especially for the smaller producers with only a few animals at a time.

Many of the same challenges can be seen in the local seafood sector: Alaska’s commercial fishing industry creates over \$5.8 billion in direct and indirect economic outputs, but very little of the fish caught is marketed in state (Loring & Harrison, 2012). Even grocery stores in such iconic fishing communities as Homer do not have fresh seafood counters. Some individuals are experimenting with innovative new ways to market locally caught seafood, with schemes for direct marketing and programs such as Community Supported Fishing (CS-Fish). But here too, these initiatives repeatedly come up against challenges that relate to policy, infrastructure, and human resources. Commercial fishing involves long and

hard days; many fishermen simply do not have the time to spend marketing part of their daily catch locally, as opposed to selling everything at once to a major fish processor. Likewise, in lieu of any sort of cooperative buying group, the demand for fish is often considered too minimal or inconsistent by many fishermen to make a serious business commitment to developing the local market. Some local fishermen and processors also lament cumbersome and expensive food safety policies and protocols that limit their ability to innovate on a small-scale.

Food Hubs as Social Infrastructure

This *Rural Connections* issue focuses on the role of food hubs in building local and regional food systems to grow rural self-reliance and sustainability. Our intent with providing the details above is to show how greater regional coordination of processing, marketing, and purchasing activities could allow for significant growth in Alaska.

However, when we think about food hubs, we also think of them as a kind of social infrastructure that is comprised of people working together for collective growth, built on and/or around the policy context in which these collectives and collaborations develop. Not often is policy discussed or recognized as food system infrastructure; but, just as poorly designed policies can hinder food system activities at the local scale, well-designed social policies can boost people’s abilities to innovate and rebuild foodsheds. To make this point, we close this article with one especially noteworthy example of an essential, yet often-understated aspect of social infrastructure that can be as or more important than built facilities or food safety policies, and one that we actively see hindering the development of strong foodsheds in Alaska: social welfare services such as healthcare. There are people in Alaska’s communities who are trying, and by many measures succeeding, to build Alaska foodsheds with markets and cooperatives, but these people are extremely vulnerable for lack of healthcare insurance. In several cases that we know of first hand, growers, processors, and distributors face the real likelihood that they will not be able to continue their businesses because of an expensive medical problem and the lack of no health insurance.

Health care is one example of a kind of invisible food system infrastructure that no one can build on their own, and the lesson is that we need to begin thinking more systematically about how we support food systems within the core of our communities and societies. Otherwise, we argue, thriving local solutions in Alaska or anywhere else in rural America will remain a vision at the far end of the rainbow. ●

Figure 2. Craig Gerlach during a visit to Faith Farms in Kodiak, Alaska.
Photo by Phillip Loring.



GROWING A LOCAL FOOD POLICY COUNCIL

By Katrina Van Dis and Dana Martin

Small scale farming in Central Oregon is not for the weak hearted. A short growing season, poor soil, limited rainfall, and isolation from major urban markets add to the challenge of growing food in this high desert region.

But Central Oregon small farm producers have found ways to persevere. Soil is enhanced, irrigation water accessed, and season extenders utilized to protect crops from the harsh climate. These producers found additional support three years ago when a movement to support locally grown food and a sustainable food system began for the purpose of enhancing community food security for the region.

In an effort to better understand the complexities of the food system, a group of committed women working for local organizations came together monthly to discuss food security in relation to local food access for the region. Discussions focused on production, distribution, and consumption and how to bridge the gaps in a disjointed food system. As a first step, WyEast Resource Conservation & Development hired an AmeriCorps volunteer to conduct a Community Food Assessment in coordination with the Central Oregon Intergovernmental Council, Oregon State University Extension Service, and NeighborImpact (the local food bank).

The assessment was conducted in the tri-county area of Crook, Deschutes, and Jefferson counties. The process included the gathering of data through focus groups, dot and farmer/ consumer surveys, and direct interviews with experts in the field regarding food production, access, and viability. Findings

suggested that the majority of small agricultural producers are using direct markets to sell their goods, such as farmers' markets and community supported agricultural (CSA), but have difficulties expanding into the direct markets with food businesses and institutions. Most producers are using off-farm income to remain viable and feel that a lack of government support is an impediment to farm viability.

Options for overcoming these barriers included: regulation reform or a creation of a roadmap of local policies and ordinances; the formation of a cooperative to pool resources and act as an intermediary for distribution; and increased opportunities to connect with consumers such as a produce stand on the Warm Springs Reservation, school field trips, and educational meals at farms and ranches, and recipe hand-outs with CSA's and at farmers' markets to educate consumers on how to use local food products.

In general, suggestions for improving the food security for the region include: recruiting volunteers at food banks; understanding the impact of the Supplemental Nutrition Assistance Program (SNAP) on the local food economy; improving nutrition in schools, and expanding food safety and skills education courses for the public and low-income residents.

In the fall of 2010, more than 120 participants funneled in from across the state to hear the outcome of the food assessment in hopes of hearing new ideas or collaborating for future projects. Agricultural producers listened to the summary, and



PICTURED: THE CENTRAL OREGON BUY FRESH BUY LOCAL LABEL.

through breakout sessions, were able to bridge the gap and find direct markets with attending food businesses. Overall, the enthusiasm that grew from the Food Summit and from the already snowballing local food movement was the perfect storm for the creation of the Central Oregon Food Policy Council (COFPC).

After the Food Summit and into the New Year, community members further voiced their opinions about the need for food security in terms of public health, food access for low income, farm viability, and consumer curiosity. Monthly meetings throughout the cities of Central Oregon created a cohesive front and collective energy for developing action-oriented outcomes for future projects. Through assistance from a professional facilitator and several long work sessions, core values were discussed and a strategic plan was developed. Though an arduous process, it was a necessary first step in creating a cohesive council.

The Central Oregon Food Policy Council is guided by the following principles:

Vision: To lead the effort to achieve a sustainable and just food system in Central Oregon.

Mission: To secure the future of the local food system in Central Oregon.

Core Values:

Access – Healthy Food Access


Advocacy – Land Use and Public Policy Advocacy

Action – Networks and Knowledge Sharing

With the guidance of a 13-member board of directors representing farmers and ranchers; hunger relief; public health; land use; local government; university; and community at-large for each county, bylaws were unanimously passed which approved the formation of a new non-profit organization. After years of preparation and planning, the COFPC has taken form and is moving forward with programs that meet the stated core values.

A kick-off event for the COFPC was to provide free fresh and local food to Project Connect individuals. This event was a collaborative effort with the Hunger Prevention Coalition to provide nearly 250 families and 200 individuals with free fresh fruit and vegetables. Information was provided on how to use SNAP benefits to buy fresh food at local farmers' markets, common misconceptions about using SNAP, and what foods are eligible for purchase. Oregon State University Extension faculty provided corresponding recipes using the food that was donated to the participants.

Building upon the success of this program, the COFPC partnered with the Central Oregon Intergovernmental Council to conduct a regional marketing campaign titled Central Oregon Buy Fresh Buy Local with the goal of increasing food security and economic opportunities. This is a membership-based program for producers, food businesses, and consumers. Standards for farming, raising, and selling local food are set to provide accountability for everyone. Consumers are engaged and asked to test these standards



"SMALL-SCALE FARMING IN CENTRAL OREGON IS NOT FOR THE WEAK HEARTED. A SHORT GROWING SEASON, POOR SOIL, LIMITED RAINFALL, AND ISOLATION FROM MAJOR URBAN MARKETS ADD TO THE CHALLENGE OF GROWING FOOD IN THIS HIGH DESERT REGION. BUT CENTRAL OREGON SMALL FARM PRODUCERS HAVE FOUND WAYS TO PERSEVERE."

by adopting a business or producer and ensuring the quality of the program. To kick off this program, a Cash Mob event occurred, which encouraged people to gather in support of a small, local business. This event was a hit and precipitated more buy-in from the community.

The COFPC is also involved in public policy advocacy by analyzing current land use laws and providing white papers about land use barriers for food and farming activities in the cities and counties of Central Oregon. This project was a direct outcome of needs of the agricultural community in regards to understanding and overcoming barriers to agricultural land use. As a next step, the council will provide information to government stakeholders in hopes of increasing awareness and knowledge of the needs of the agricultural community.

Although the council is in a nascent phase of life, it continues to capture a broader audience and engage community members that have been on the periphery of understanding a local food system. Because of the strong foundation, defined purpose, and determination of committed members, the Central Oregon Food Policy Council continues to educate people and provide services and activities that benefit the entire community.

To summarize what we are, the following sentence wraps it up: "The COFPC is a non-profit volunteer citizen-based advisory board to Central Oregon which brings together citizens and professionals to address issues regarding healthy food access, public policies, and land use issues affecting food and farming, and provides outreach and education to our community."●

For more information, visit our website:
<http://centraloregonfoodpolicy.org/>

PACIFIC FOOD HUBS: GUAM ISLAND-STYLE

By Peter R. Barcinas

Documenting the geographical boundaries of where our food comes from is a discussion occurring throughout the continental U.S. and in the Pacific Territories. Albeit the geographic regions and the distances food travels in the U.S. compared to Guam are vastly different. Consider Guam's geographic isolation: it's approximately 6,000 miles west of San Francisco; 3,700 miles west-southwest of Honolulu (its closest U.S. neighbor), and situated on the Pacific Rim of the Asian countries (according to the Guam Economic Development Authority website). This article tries to draw such comparisons and how islands can benefit from understanding what makes up a jurisdiction's food system and the need to support food localization strategies.

Guam is experiencing a renewed island food campaign infused with the latest buy-fresh, buy-local themes representing a shared food hub vision between government, industry, and consumers. The buy-local campaign is the next phase in the ongoing Government of Guam-sponsored everything Guam campaign (made-in, grown-in, and caught-in Guam). This idea of "buy local" and the benefits of keeping such economic activity within the island economy seeks to promote the associated positive economic impacts of local purchases of produce and innovative ways of channeling foodstuff to the consumer. This desire to increase buy-local sales exists amid a long-standing import substitution interest. Increasing transport and their associated logistical costs and the known trade policies that add to the overall cost of imported commodities. While food localization offers numerous benefits, it also comes with its vulnerabilities forcing the community to rely on contingencies such as increasing reliance on imports and response to high

transportation costs, and islands' susceptibility to natural disasters and increasing concern over climate change.

Village Festivals Serve to Unite

Guam is investing in bolstering its cultural capital through village festivals, and through these festivals is developing village-based food localization efforts as a means to nurture food hub opportunities and build viable, island-based agriculture economies. Festivals have celebrated the Mango crab, banana, Donde (pepper), and coconuts. The village festivals are connecting local growers to the consumers and drawing not only local residents to the event but also serving as village-based events offering a myriad of opportunities for barter and exchange of both food and nonfood items. The festivals are providing opportunities for villagers to rediscover what they can grow and market close to home and plan community-building initiatives.

The spotlight on everything Guam continues to uncover new opportunities for promoting agricultural enterprises in both fresh and value-added food markets. Nineteen villages add to the diversity of supporting local purchasing policies that reflect a community-based interest each having a unique location and characteristic and increasing interest in marshaling village assets. Five villages embarked on marketplace specific strategies offering a sound practical setting for carrying a food hub base for a true village food system. ●

Resources

www.investguam.com
<http://buylocalguam.org>



PICTURED: ROADSIDE FOOD STAND, GUAM.



PICTURED: BANANAS GROWING IN THE VILLAGE OF SANTA RITA, GUAM.

“CONSIDER GUAM’S GEOGRAPHIC ISOLATION: IT’S APPROXIMATELY 6,000 MILES WEST OF SAN FRANCISCO; 3,700 MILES WEST-SOUTHWEST OF HONOLULU (ITS CLOSEST U.S. NEIGHBOR), AND SITUATED ON THE PACIFIC RIM OF THE ASIAN COUNTRIES. THIS ARTICLE TRIES TO DRAW SUCH COMPARISONS AND HOW ISLANDS CAN BENEFIT FROM UNDERSTANDING WHAT MAKES UP A JURISDICTION’S FOOD SYSTEM AND THE NEED TO SUPPORT FOOD LOCALIZATION STRATEGIES.”

NETWORKS, FOOD HUBS, & RURAL WEALTH CREATION

By Richard Pirog with Corry Bregendahl

“ALTHOUGH FOOD HUBS MAY BE A VIABLE STRATEGY FOR WEALTH CREATION IN RURAL AMERICA, IT IS CRITICAL TO REMEMBER THAT A FOOD HUB’S SUCCESS DEPENDS IN PART ON ITS CONNECTION AND ACTIVE PARTICIPATION IN THE LARGER COMMUNITY-BASED NETWORK THAT INCLUDES BUSINESS, EDUCATION, TECHNICAL, FINANCIAL, AND GOVERNMENT PARTNERS.

The local food movement has come a long way in the past 20 years, from the first community supported agriculture enterprises and sales of local food to schools, hospitals and restaurants to a national awareness of local food as more than just a “fashionable trend.” Across the country local food commerce has evolved from better connections between farms and consumers to a strategy for building local urban and rural economies and national food security. A common challenge found in “scaling up” local food commerce is building or rebuilding the infrastructure for small and mid-size farmers and processors to respond to the demand. Food hubs – centrally located facilities with a business management structure facilitating the aggregation, storage, processing, distribution, and/or marketing of local and regional food products (USDA-AMS working definition) – may help address the infrastructure challenge as well as facilitate market opportunities for smaller producers to reach larger, higher volume markets.

Aggregating, processing, distributing, and marketing food is nothing new; however, food hubs have unique characteristics that include commitments to small and mid-size farmers, utilizing different product differentiation strategies, and a focus

on positive local economic, social, and environmental impacts. Attention to food hubs as a community wealth creation and food security strategy continues to grow as USDA, state governments, and the philanthropic community provide more grant and loan opportunities to build food hubs.

Although food hubs may be a viable strategy for wealth creation in rural America, it is critical to remember that a food hub’s success depends in part on its connection and active participation in the larger community-based network that includes business, education, technical, financial, and government partners. Planting high-quality seed on infertile soil will likely result in poor crop performance; the same can be said for “planting” a food hub in a location without a strong and resilient support network.

To bring this point home, the remainder of this article is excerpted from a recent publication: *Creating Change in the Food System: The Role of Regional Food Networks in Iowa* (Pirog and Bregendahl, 2012). It shares the story of how regional food networks in Iowa helped create the “fertile soil” needed for building local and regional food commerce.



Relatively strong institutional, organizational, and agency collaboration in Iowa has not always been the norm, nor did it develop unaided. Development and evaluation of a common agenda has been key, as has careful maintenance of those relationships. After several years of funding local food systems projects in the 1990s, leadership at the Leopold Center for Sustainable Agriculture and its Iowa food systems partner organizations realized that the technical, educational, research, and financial needs of local food farmers, food entrepreneurs, and community leaders had to be addressed in a more coordinated, cohesive fashion to build long-lasting local and regional food commerce.

The Leopold Center, like many other funders, was aware that funding individual projects not connected strategically to each other and to other key influential food system actors (such as financial institutions), would not create significant change in the food system. Kania and Kramer (2011) also contend that funders who continue to support fragmented, isolated initiatives will not solve many of the social problems in today's complex world. Kania and Kramer identify five conditions that must be present to achieve the level of synchronization and alignment needed to achieve lasting and meaningful collective impact:

- Common agenda across organizations;
- Shared measurement systems;
- Mutually reinforcing activities that create synergy rather than redundancy;
- Continuous communication across and within organizations; and
- Backbone support organizations that can plan, manage, and support the initiative so it runs smoothly.

These five conditions must exist across a network of groups and individual actors who through shared experiences have built adequate trust with each other. Research has shown that high trust environments tend to bring stability, increasing the flow of communication and reducing the level of control needed to achieve goals (Gibb, 1978; Smith and Ward, 2003). Trust, while often overlooked as a "soft" and inconsequential matter for business consideration, is the foundation upon which many successful private food enterprises thrive. The principles of Gibb's Trust Theory (Gibb, 1978) have been used as a guide for the board of Organic Valley ("1643 owners strong"), a farmer-owned cooperative based in Wisconsin (Peterman, 2011). The company supplies certified organic farm products such as dairy products, soy milk, produce, juice, meat, and eggs to consumers across the United States.

With funding from numerous sources including the Leopold Center, a network of food and agriculture working groups called Value Chain Partnerships (www.vlaucechains.org) was created in 2002. The number of working groups in Value Chain Partnerships grew steadily through 2010. The working groups in Value Chain Partnerships used a community of practice approach. Communities of practice are groups of people in organizations who come together to understand and share their work in new ways. The Regional Food Systems Working Group (RFSWG), one of the first three working groups created through Value Chain Partnerships in 2003, functioned as an umbrella network for Iowans working in the local and regional food systems arena.

After three years of operation using an issues-based approach, RFSWG underwent a transformation and shifted its focus to a geographically based approach, namely, one that engaged partners working in specific regions of the state. The Leopold Center provided its first RFSWG seed grant in 2006 to the Northeast Iowa Food and

Farm Coalition. Soon afterward, competitive grants were awarded to two more regional food groups.

These three regional food groups were asked to collect local data that documented progress (such as increased local sales by farmers) in building local food systems. They also were required to send representatives to actively participate in RFSWG meetings. Additional regional food groups were funded by the Leopold Center using a competitive process based on the group's local support, leadership capacity, and willingness to actively participate in RFSWG. As RFSWG expanded, existing groups and the RFSWG coordinator each had a vote to determine which new regional food groups would receive seed funds to increase ownership and build the decision making and leadership capacity of the RFSWG group as a whole.

By spring 2011, 16 geographically based groups covering 83 of Iowa's 99 counties were part of RFSWG. With Leopold Center and local leadership, these 16 local food groups developed a common agenda and to this day, continue to share information and resources to carry out that agenda. They explored and continue to explore shared measurement systems (local food sales and purchases) that by 2013 will aggregate common indicators across all 16 groups to present a statewide impact story.

The following lessons learned through RFSWG may be helpful to other food hub or local food business networks interested in community wealth creation:

1. Local engagement and leadership at the grassroots level is essential;
2. Statewide institutions must take cues from the grassroots organizers and leaders to provide resources that truly support local decision makers;
3. Collectively held values and power should be shared within and across organizations to achieve higher forms of network building;
4. There needs to be a high tolerance and respect for process within the network;
5. You have to have backbone organizations or businesses who keep the collaboration infrastructure alive and growing;
6. The most effective local and regional networks succeed because they are part of a nested network – able to tap statewide and national/global networks when needed without losing the fabric and integrity of their own network;
7. A safe and nurturing space to shape the dialogue and outcomes associated with regional food system development in the state (or region) is critical.

For many Regional Food Systems Working Group participants the experience was synergistic in its impact. As one member of RFSWG put it: "What is exciting for me about RFSWG isn't so much the impact it has on me (which is good) but the fact that I'm able to create an impact by being part of the working group. I'm actually helping to create the impact that I get back from RFSWG."

All of us become energized and transformed when our efforts to make a difference give back to us. So let's build the kind of networks that create wealth for each of us as well as the communities in which we work and live. ●

WE EAT WHERE WE LIVE: THE ROLE OF CONSUMER CO-OPS IN LOCAL FOOD DISTRIBUTION

By Chyi-lyi (Kathleen) Liang and Marina Michahelles

“THE FIRST AMERICAN CONSUMER FOOD CO-OP WAS ESTABLISHED IN 1822 IN NEW YORK CITY, AND MANY MORE WERE CREATED DURING THE GREAT DEPRESSION. TODAY, CONSUMER CO-OP MEMBERSHIP, IN THE U.S., INCLUDING BUYER’S CLUBS, IS ESTIMATED AT OVER 620,000 WITH A RETAIL VALUE OF \$600 MILLION.”

Concepts of the Consumer Co-ops

Consumer cooperative (co-op) is one type of food hub that plays an increasingly important role in facilitating the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products. Consumer co-ops are groups of consumers who make decisions through a democratic process. They typically operate out of retail facilities and are open to the general public, but limit their special services, prices, or benefits to members only. Unlike conventional food retail outlets, however, what the co-op purchases reflect is the consumer preferences of its members, and is not directly influenced by what food manufacturers want to sell. Therefore the consumer co-ops serve the function of providing consumers with products that offer the desired attributes, such as purchasing by bulk (resulting in lower prices), being environmentally or socially friendly (organic or fair trade), or being locally produced.

Background of the Northeast Regional Consumer Co-ops

The first American consumer food co-op was established in 1822 in New York City, and many more were created during the Great Depression. Today, consumer co-op membership, in the U.S., including buyer’s clubs, is estimated at over 620,000 with a retail value of \$600 million. There are 67 consumer co-ops in the Northeast, excluding college campus-based student run co-ops, member-only co-ops, and those that are open to non-members as well. A conservative estimate of annual expenditure on local food by these co-ops is \$21,253,750, representing a little over 17% of total food expenditure. While this may seem inconsequential within the multi-billion dollar food system in the country, the impact on local economies and small-scale regional agriculture could be significant.

Survey Research Regarding the Northeast Regional Consumer Co-ops

A survey was conducted in 2008 with managers and working members of 67 consumer co-ops in the Northeast to explore the background, demographics, local food attributes, willingness for sourcing local food, barriers to sourcing local food, and impact of 67 co-ops in the local food market.

The number of co-ops per state ranged from one in Rhode Island, Connecticut, Delaware, and West Virginia to as many as thirteen or fifteen in Vermont and New York, respectively. Half of all co-ops were located in urban areas. Fifty-two percent of co-ops were ranked Small by the Cooperative Grocer standards (Cooperative Grocer Ranking: Small = <\$1.2 million total sales; Medium = <\$8.5 million total sales; Large = >\$8.5 million total sales), 35% were ranked Medium, and 13% were ranked Large. Two-thirds of all co-ops explicitly mentioned local foods in their mission statement.

On average, co-ops in the northeast purchased a little over 17% of their food products from local producers and regional distributors and source from an average of 40 farms. There was strong evidence for the consumer co-ops to support environmental benefits, build relationships with producers, source locally, and preserve agricultural land. The primary constraints of sourcing locally included higher costs, lack of consistent distribution and operation logistics, problems and challenges to work and coordinate with multiple vendors, short growing seasons, and lack of consistent criteria to select vendors.

The most consistently sourced local products were eggs, syrup and honey, and baked goods. Nuts and fish were least frequently sourced, possibly presenting opportunities for diversification on some smaller operation. Salsa was most frequently mentioned as a locally made preserve, but it was questionable as to whether all the ingredients were local. Milk, fruit, produce, meat, cheese, and other dairy were seasonal local food products for the co-ops.

Are the barriers of sourcing locally preventing co-ops from fulfilling their function as a hub for local food distribution? Can these obstructions and challenges be overcome, allowing co-ops whose mission it is to source locally to do so efficiently, cost-effectively, and sustainably? We conducted follow-up interviews with 58 self-selected co-op managers and working members in the Northeast. The results are summarized in Table 1.

Table 1. Results from follow-up interviews with co-op managers and member workers.

Topic	Responses	Is it a barrier?
Interest in local food	<p>Interest in local food has emerged in the last few years and has recently picked up momentum.</p> <p>“It’s been a ten-year process, and the most rewarding part of my job.”</p> <p>“We were sourcing less than 1-percent locally seven years ago, and the most notable change has been in the last 10 years.”</p> <p>“Interest in local food has changed completely in the last two years. There was very little two years ago other than produce.”</p>	No
Supply and demand	<p>Co-op customers and members actively seek out local food.</p> <p>“There is member support, and it’s become a new manager’s priority.”</p> <p>“Demand and interest are really there, especially in the cities.”</p> <p>“Customers want local food when it’s not in season. They’re expectations are sometimes unreasonable.”</p>	No
Cost	<p>The relatively high cost of local products is not an issue when co-op customers understand where the discrepancies come from.</p> <p>“It doesn’t end up being a cost to the co-op, but the customer has to understand the true cost of food on the environment, transportation, workers, etc. Small natural retailers cave in to pressure and artificially lower prices. We let customers make educated decisions.”</p> <p>“People want to support an artisan operation, something smaller. Not a factory farm. Not just for the product, but helping to sustain a producer in a direct way.”</p>	No
Access to local food	<p>Access to local food ranged from most products being available throughout the year to no local products available at anytime.</p> <p>“Producers can’t keep up with consumer demand; many items have no local producers.”</p> <p>“There just aren’t any small-enough scale local producers in our area. They all sell wholesale.”</p> <p>“Finding the right local food source is just too time-consuming.”</p> <p>“I don’t know where to find local producers of certain products, like cheese and preserves.”</p>	Yes
Distribution	<p>Distribution can be a barrier in terms of scheduling, mismatched infrastructure, product presentation and the transportation of products from farm to co-op.</p> <p>“We’re all there because we believe in co-operatively distributing goods.”</p> <p>“A big problem is at the farmer level, but they won’t discuss distribution. Farmers refuse to cooperate with each other; they compete with each other.”</p> <p>“We can’t always coordinate with farmers’ schedules, and they don’t have the flexibility to coordinate with ours.”</p> <p>“Competing farmers lower their prices to out-bid each other, making it unviable for themselves. Also, the quality of the products was decreasing because they had to cut costs.”</p> <p>“It’s difficult when farmers go from having a farm stand to wanting to bring everything to you. The quality is uneven.”</p>	Yes
Competition	<p>Consumer co-ops compete with farmer’s markets, CSA farms, farm stands, as well as natural food grocers and larger food retail outlets like Whole Foods.</p> <p>“We compete with the same people we are trying to support.” (i.e. farmer’s markets, CSA farms, farm stands.)</p> <p>“Small producers are on their way out because grocers are out-priced by other bigger stores. And small farmers are priced-out from places like Whole Foods, which takes over the market.”</p>	Yes
Co-op cooperation	<p>There is a lack of cooperation among consumer co-ops and between co-ops and other organizations such as NOFA, localvore groups, and extension agencies.</p> <p>“We don’t talk to other co-ops.”</p> <p>“A huge problem is the lack of shared resources among co-ops, and also other organizations. It takes a lot of people who want to maintain their independence to let go.”</p>	Yes

Discussion, Recommendations, and Future Research

Consumer co-ops are very suitable candidates for acting as local food hubs. The products they offer to their members and other patrons reflect the values and preferences of their members. In order for co-ops to maximize their impact as local food hubs, the barriers described above – access to local food, co-op cooperation, the question of organics, distribution, and competition – must be addressed by co-ops since educating consumers or spreading awareness of local food hubs is critical to the success of the co-ops. The results of the survey lead us to make the following recommendations:

- Education and promotion for co-ops, producers and consumers: Why is buying local food good for the environment, local economies, consumer health, and community development? What foods are available at different times of the year? What are the true costs of food, and how does the pricing of local products reflect them?
- Networking for co-ops, producers and consumers: Using the resources gathered by localvore groups, Slow Food and NOFA chapters, co-op and agricultural extension agents, as well as communication with other co-ops in the region to decrease the time spent researching local producers and strengthens connections between farmers and local food outlets; creating mentorships between farmers and co-ops; establishing annual producer's meetings to determine who grows what for the co-ops.
- Organizing local distribution logistics and criteria: Providing vehicles to be shared by local producers or to be used by member workers who run the distribution (this service can be extended to restaurants, schools, hospitals and other grocers as well, which would lower the overhead cost of distribution significantly); providing community cold-storage for preserving food and/or on-site industrial kitchen for processing. ●

Resources

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"[IN THE NORTHEAST] THE PRIMARY CONSTRAINTS OF SOURCING LOCALLY INCLUDED HIGHER COSTS, LACK OF CONSISTENT DISTRIBUTION AND OPERATION LOGISTICS, PROBLEMS AND CHALLENGES TO WORK AND COORDINATE WITH MULTIPLE VENDORS, SHORT GROWING SEASONS, AND LACK OF CONSISTENT CRITERIA TO SELECT VENDORS."



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Cooperation: The Final Frontier *A farmer's perspective*

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Rebuilding Alaska Foodsheds: No shortage of good ideas

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PICTURED: CRAIG GERLACH DURING A VISIT TO FAITH FARMS IN KODIAK, ALASKA. PHOTO BY PHILLIP LORING.

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PICTURED: THE INTERVALE FOOD HUB SPEARHEADS LOCAL FOOD DISTRIBUTION YEAR ROUND IN BURLINGTON, VERMONT.



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"SMALL-SCALE FARMING IN CENTRAL OREGON IS NOT FOR THE WEAK HEARTED. A SHORT GROWING SEASON, POOR SOIL, LIMITED RAINFALL, AND ISOLATION FROM MAJOR URBAN MARKETS ADD TO THE CHALLENGE OF GROWING FOOD IN THIS HIGH DESERT REGION. BUT CENTRAL OREGON SMALL FARM PRODUCERS HAVE FOUND WAYS TO PERSEVERE."

—Van Dis & Martin, pg. 25

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"CONSIDER GUAM'S GEOGRAPHIC ISOLATION: IT'S APPROXIMATELY 6,000 MILES WEST OF SAN FRANCISCO; 3,700 MILES WEST-SOUTHWEST OF HONOLULU (ITS CLOSEST U.S. NEIGHBOR), AND SITUATED ON THE PACIFIC RIM OF THE ASIAN COUNTRIES."

-- *Barcinas*, pg. 27



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