



COPPER COMMUNITIES LOCAL FOOD DEVELOPMENT BUSINESS PLAN







INTRODUCTION

During the course of the Copper Communities Food Hub Study, several clusters of small-scale food production have been identified in areas throughout the study region. Four distinct clusters exist in the following areas: Globe-Miami, Kearny-Superior, Mammoth-Oracle and Young. This business development plan offers a template for small-scale producers to develop a model that will aid in the entry of new markets and determine the need for post-harvest facilities. This plan takes a place-based approach that will continue to assess the common variables among growers and value-added producers to facilitate the development of localized food production nodes and the development of an aggregation center to serve production nodes in the region. Food production nodes, a term identified by the USDA, serve as small clusters of production and light processing that can assist in the development of an interconnected local food economy. In addition to developing food production nodes, other processes throughout the value chain will need to be developed to address the geographical, climate, regulatory policies and marketing challenges that affect producers in the region. Production nodes, value-added facilities such as, commercial kitchens and processing facilities, cold storage transportation and other distribution related activities are necessary infrastructure for the transition of local food activities from individual small-scale farms and ranches selling direct-to-consumer markets and into aggregated opportunities that reach a broader local market.

Production nodes are most effective when producers are in close proximity to each other. This aids in collaboration and leverages common food production infrastructure. During the course of the food hub study, core infrastructure and organizational needs were identified for successful production node development. These needs include, 1) The development of collaborative legal organizations, 2) Washing, sorting and packing facilities, 3) Food storage, 4) Local distribution capacity, 5) Training programs, 6) Marketing assistance, 7) Season extension in areas, and 8) Small retail, institutional and direct-to-consumer market agreements to meet local demand.

There is the potential to develop the necessary infrastructure in the region to grow and collaborate in such a way that meets the diverse needs of producers and consumers to develop a sustainable local food economy. This business development plan contains a series of overall steps with references to information gathered during the study and questions where appropriate that address the needs of producers and their buyers. These plans outline the potential for producers to share costs in infrastructure investments. First, is a Production Node business plan that is intended to be tailored to the needs of each production node that



is established in the region. Following that is a business development plan for a food hub or aggregation center.

The business plan templates presented here include the identification of current and potential assets and market opportunities that aid in the visioning process and provide an understanding of the producers' capacity and potential for development. Also included is an operational needs assessment and operational plan template.

When working through the steps contained in these templates it is important to note that the steps will not always be linear. Each plan should be adapted to specific needs and circumstances. Conversations initiated by this process should continue and develop over time. Keeping good records and documenting why decisions were made as plans were developed will be a critical part of this process.

Additionally, the Copper Corridor Economic Development Coalition and the Southern Gila County Economic Development Corporation, with technical assistance from Local First Arizona Good Food Finder, are well positioned as partners to lead the discussion and assist in the future development of production nodes, value-added facilities and an aggregation center or food hub.

PRODUCTION NODE BUSINESS DEVELOPMENT MODEL

1.0 Identify and organize core group of fruit and vegetable growers, livestock producers and value-added producers in close geographic proximity that are dedicated to entering new markets.

- 1.1 Determine the interests and characteristics of the core group.
- 1.2 Assess current operational strategies including core products and production schedules
- 1.3 Map existing and potential assets (see CC Food Hub Toolkit)
- 1.4 Identify vision for development and expansion

2.0 Develop Organizational Plan

- 2.1 Determine type and structure of organization for core group
 - 2.1.1 Consider the suitability of organizations already in place as well as starting a new one
- 2.2 Determine organizational oversight, management needs, etc
- 2.3 Determine staffing and employee needs (if any)
- 2.4 Consider compensation expectations back to producers



3.0 Map the existing and potential market

- 3.1 Identify markets currently serving the core group of producers
- 3.2 Examine the potential market; include markets served by the CC Aggregation Center and the data in Table 4 (see CC Food Hub Toolkit)
 - 3.2.1 Direct to consumer market channels
(roadside stands, farmers markets, etc)
 - 3.2.2 Potential institutional buyers
(restaurants, grocery stores, hospitals, schools, etc.)

4.0 Project potential revenue streams from individual households and institutions

- 4.1 Identify current production vs market demand
- 4.2 Identify options for meeting market demand not currently in production

5.0 Develop marketing partnerships

- 5.1 Develop partnership and agreements with the CC Aggregation Center
- 5.2 Continue conversations with potential buyers
- 5.3 Develop relationship with LFA and Good Food Finder Network
- 5.4 Identify and Prioritize most advantageous markets
- 5.5 Share vision & progress with other production nodes, aggregation centers, retailers, etc.

6.0 Determine Operational Needs

- 6.1 Consider the current infrastructure and facilities available
- 6.2 Identify missing infrastructure and facilities to meet new market demand (see CC Food Hub Toolkit)
- 6.3 Prioritize infrastructure and facility needs
- 6.4 Determine best location for facilities based upon current and future needs including emerging markets such as agri-tourism, education, etc.

7.0 Develop Operational Plan

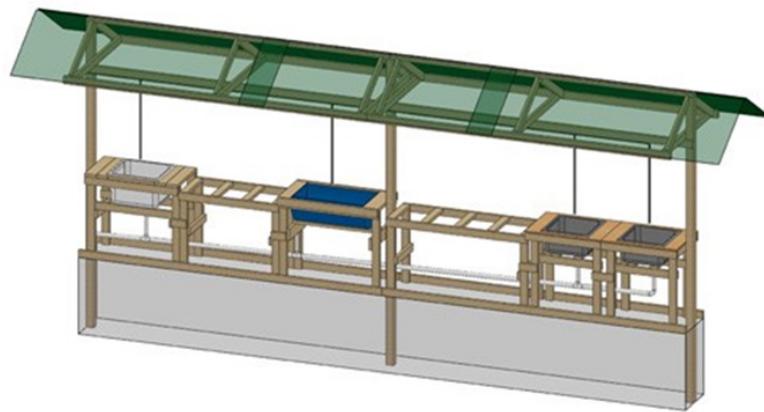
- 7.1 Are there facilities to be managed?
- 7.2 Is there a need for additional employees?
- 7.3 Identify direct costs
- 7.4 Identify costs shared through partnerships



FACILITY AND INFRASTRUCTURE OPTIONS FOR FOOD NODES

IN-FIELD WASH STATION

In-field wash stations are made from commonly available materials from a hardware store at a low cost. They are ideal for washing fresh vegetables. They work well for small back yard gardeners and up to 3 acre production sites.



In-Field Wash Station. Image Credit: Leopold Center for Sustainable Agriculture

In-Field Wash Station Equipment List		Approximate Total Cost \$1200	
Materials	Quantity	Cost	Total
Lumber	Depends on Size	\$150	\$150
Hose Line	1	\$25	\$25
Plastic Sink	1	\$150	\$150
Steel Sink	1	\$200	\$200
Plastic Tub	1	\$100	\$100
Dry Rack	2	\$100	\$200
Roof	Depends on Size	\$150	\$150
Labor	10 Hours	\$20	\$200

Table 1 – In field Wash Station Equipment List



WASH-PACK SHED

When considering a wash-pack shed, producers should identify any existing facilities and infrastructure that could be used to reduce costs. Below is a cost estimate for a smaller wash-pack facility suitable for sharing within a smaller production node.

Wash & Pack Shed Equipment List		Approximate Total Cost \$4725	
Equipment	Quantity	Cost	Total
Lumber	Varies	\$500	\$500
Dunk Tub	3	\$100	\$300
Dry Rack/ Screen & Table	1	\$100	\$100
Scale/Screen Table	1	\$250	\$250
Roller Table	1	\$250	\$250
Cool Bot Cold Storage	1	\$1800	\$1800
Electric Service	1	\$600	\$600
Labor	40 Hours	\$20	\$800

Table 2 – Wash & Pack Shed Equipment List



MOBILE SLAUGHTER UNIT (MSU)

Livestock producers in the region may find this option more feasible than a permanent slaughter facility. According to the USDA's Food Safety and Inspection Service (FSIS), "small livestock producers are finding it hard (and at times, cost prohibitive) to transport their livestock the long distances necessary to the closest FSIS-inspected slaughter facility. This is especially troubling to producers at a time when markets for locally grown and specialty products are becoming more and more profitable. FSIS-inspected "mobile slaughter units" provide a feasible option for small red meat and poultry producers wanting to provide safe, wholesome product to local and interstate markets."

Mobile slaughter units are sold commercially and have a range of prices depending upon specifications and needs. Fully equipped 36' trailers average \$220,000.

The Cooperative Extension System has an online excel-based planning tool to determine the feasibility of a mobile slaughter unit based upon # of head, days/week used, yield assumptions, pricing, and other details. This tool can be found at:

<http://articles.extension.org/pages/17897/cost-calculator-for-a-mobile-slaughter-unit>.

COMMERCIAL FOOD TRUCK OR TRAILER

A mobile commercial kitchen or commercial trailer could be a valuable marketing asset to value-added producers in the region. A mobile truck or trailer in which locally produced goods such as jams and jellies from native plants, tortillas, and specialty products could be prepared to educate and market value-added items through locally sponsored events. A mid-sized commercial trailer can be purchased for about \$25,000 depending on identified needs and purpose.



LIGHT-PROCESSING AND VALUE-ADDED COMMERCIAL KITCHEN

Commercial kitchens can house a variety of activities. Equipment and facility needs are based upon the products coming into the facility and the state of the product ready for market. For this study, we consider light-processing to be: cutting, slicing, peeling, coring, pulping, shucking, commercial canning, freezing, and dehydrating. The table below is an inventory and estimate of equipment costs. This table does not include the cost of a building.

Commercial Kitchen for Light Processing		Approx Total Cost \$51,495	
Equipment	Quantity	Cost	Total
Dishwasher	1	\$3,200	\$3,200
Triple Sink	1	\$600	\$600
Hand Sink	1	\$100	\$100
SS Tables	4	\$1,250	\$5,000
Vegetable Cutter	1	\$320	\$320
Wedger	1	\$100	\$100
Vegetable Slicer/ Shredder	1	\$375	\$375
Food Processor	1	\$1,900	\$1,900
Dehydrator	1	\$5,400	\$5,400
Refrigerator	1	\$900	\$900
Freezer	1	\$900	\$900
Blast Freezer	1	\$18,000	\$18,000
Cooker/Canner	1	\$5,000	\$5,000
Vacuum Sealer	1	\$600	\$600
Digital Scales	2	\$600	\$1,200
Misc. Utensils	n/a	\$2,500	\$2,500
Electrical	n/a	\$3,000	\$3,000
Mechanical Plumbing	n/a	\$2,400	\$2,400

Table 3 – Equipment List for Commercial Kitchen & Light Processing



PRODUCTION NODE BUSINESS DEVELOPMENT MODEL

- 1.0 Identify individual producers and production nodes in the region with a commitment to entering new markets.**
 - 1.1 Determine number of producers, volume and variety of production available for new markets (see CC Food Hub Study Toolkit)
 - 1.2 Identify operational strategies
 - 1.2.1 Marketing
 - 1.2.2 Post-harvest handling needs (see CC Food Hub Study Toolkit)
 - 1.2.3 Excess product management
 - 1.2.4 Education/Information for producers
 - 1.3 Map existing and potential assets (see CC Food Hub Study Toolkit)
- 2.0 Develop Organizational Plan**
 - 2.1 Determine type and structure of organization for core group
 - 2.1.1 What values drive the organization?
 - 2.1.2 How would the organization(s) benefit business, buyers and the community?
 - 2.1.3 What benefits are there to collaborating?
 - 2.2 Consider the suitability of organizations already in place as well as starting a new one
 - 2.3 Determine organizational oversight, management needs, etc
 - 2.4 Determine staffing and employee needs (if any)
 - 2.5 Consider contract expectations of producers and production nodes
 - 2.6 Develop operational budget
- 3.0 Mapping New Markets**
 - 3.1 See data collected from consumers in the CC Food Hub Study Survey
 - 3.2 Estimate the local food market potential (See table below)
 - 3.3 Identify potential new farmers markets, roadside stands and direct to consumer outlets
 - 3.4 Identify potential institutional buyers (see CC Food Hub Study Toolkit)
 - 3.5 Develop market partnerships



Potential Local Food Market – The table below estimates the potential local foods market by using the U.S. Average Annual Household (2.5 people) Food Expenditures in 2015 and multiplying that by the approximate 4,500 households in Study Region and then assuming the region could increase production to at least 10% of the foods consumed in the region. (Numbers in U.S. Dollars)

Type of Food	Fresh Fruit	Fresh Vegetable	Beef	Pork	Poultry	Eggs	Dairy
Total At Home Spending	1,278,000	1,111,500	1,102,500	742,500	774,000	283,500	1,858,500
Potential At Home Market	127,800	111,150	110,250	74,250	77,400	28,350	185,850
Total Away from Home Spending	945,000	810,000	810,000	540,000	540,000	202,500	1,350,000
Potential Away from Home Market	94,500	81,000	81,000	54,000	54,000	20,250	135,000
Total Annual Potential Market	222,300	192,150	191,250	128,250	131,400	48,600	320,850
TOTAL							1,234,800

Table 4 – Potential Local Food Market *Data for at home and away from home food spending was sourced from The Food Institute's Demographics for Consumer Food Spending 2017 Edition

4.0 Project Revenue Streams

- 4.1 Determine core product mix and production schedule
- 4.2 Calculate product revenue
- 4.3 Calculate transportation, storage and processing costs

5.0 Determine Operational Needs and Plan

- 5.1 Prioritize facility and infrastructure needs based on product mix and market demand
- 5.2 Determine location of aggregation center, consider zoning, utilities and infrastructure and visibility
- 5.3 Identify the components of the facility, ie warehouse, cold storage, classroom, etc (see CC Food Hub Study Toolkit)
- 5.4 Identify general operations, layout, capacity and potential future expansion of facility
- 5.5 Determine human resource needs full-time, seasonal, etc
- 5.6 Calculate direct operational costs, ie transportation, fuel, materials, labor, etc.



FACILITY AND INFRASTRUCTURE OPTIONS FOR A FOOD HUB/AGGREGATION CENTER

The size and scope of a food hub or aggregation center for the CC Region, will depend largely upon the number of producers/production nodes and the opportunities for new market development. Also important to consider are the marketing and education needs of the participants. Ideally, the facility should be centrally located. An inventory of current buildings that could be suitable should be considered.

COLD STORAGE TRANSPORTATION

Cold storage transportation is a key component of this model. Without cold storage transportation, producers will not be able to navigate the distances between the communities in the region and have their produce remain fresh. A cold storage trailer would be the best option for the region's road conditions. A cold storage trailer averages \$48,000.



PACK HOUSE OPERATION

A larger pack house could be part of the aggregation facilities. The table below provides cost estimated for the equipment necessary for a larger pack house operation. The estimate does not include the cost of a building.

Pack House Operation		Approx. Total Cos \$97,700	
Equipment	Quantity	Cost	Total
Wet Cold Storage	1	\$12,000	\$12,000
Dry Cold Storage	1	\$12,000	\$12,000
Chilled Storage	1	\$12,000	\$12,000
Barrel Root Washer	1	\$3,250	\$3,250
Vegetable Wash Line	1	\$600	\$600
Roller Conveyer 5'	4	\$500	\$2,000
Roller Conveyer 10'	4	\$700	\$2,800
Steel Sink	2	\$175	\$350
Drying Rack	1	\$200	\$200
Shelf	4	\$150	\$600
Table	8	\$175	\$1,400
Curtain	2	\$350	\$700
Stock Tank	2	\$125	\$250
Hand Wash Station	1	\$100	\$100
Spin Drier 5 Gallon	1	\$250	\$250
Electrical	n/a	\$10,000	\$10,000
Mechanical Plumbing	n/a	\$20,000	\$20,000
Labor Hours Equipment Setup	60	\$20	\$1,200

Table 5 – Equipment List for Pack House Operation



CASE STUDIES

For the purposes of this study we identified four different food hubs or aggregation centers that 1) crossed jurisdictional boundaries, 2) were operating and considered successful and 3) each had a different organizational structure and slightly different scope of work or mission. Each example should be examined closer than the limited space this document allows. Website addresses for more information are provided.

Northern Colorado Food Cluster

NoCo Food Cluster is more than an aggregation center or food hub. It is self-described as an entire food system “to support and promote local food production, distribution and consumption.” It is a service member organization that offers differentiated marketing, promotion, education, distribution through coordination with a separate non-profit (LoCo Food Distribution), events and a Winter Farmers Market. NoCo Food Cluster is based out of Fort Collins, Colorado and has a seven member board of directors and three full-time staff. Partner members pay an annual fee that is determined by the number of employees of the member organization: 1-10 employees is \$200, 11-100 employees is \$500, 101-500 employees is \$1,000 and above 500 employees is \$2,000. There is also an individual membership which is \$50.00 annually. **For More Information Visit - <https://nocofood.org>**

Local Food Hub – Charlottesville, VA

Local Food Hub provides services to 60+ small family Partner farms and producers throughout Virginia in the areas of distribution, marketing, training, technical assistance and cost-sharing opportunities. There is a fourteen member board of directors and nine full-time staff.

“LOCAL FOOD HUB grew out of a community-supported discussion that identified a need for greater linkages between small family farms and institutions seeking local food. Farmers were being locked out of the institutional market due to missing infrastructure, delivery minimums, insurance requirements, and time. Institutions and businesses found it challenging to access a consistent supply of local produce, and were looking for one number to call to source locally.”

Local Food Hub is focused on reinstating small farms as the food resource for their communities. All products from the Local Food Hub are fully traceable from farm to plate so that consumers know specifically where their food purchases come from.

For More Information Visit - <http://www.localfoodhub.org>



Fifth Season Cooperative

This food hub is a cooperative venture located in Wisconsin. It serves a largely metropolitan area of 150 square miles. This unique coop structure is governed by a board of directors which is elected from the membership. Membership includes companies, growers, buyers, distributors, workers and processors so that all aspects of the local food system are represented. There are six board members and three full-time staff. The local economic development association provides daily oversight and grant writing assistance. As part of their unique structure, Fifth Season Cooperative has Class A members whose only requirement is to purchase from the coop at least twice a year. They also offer Class B preferred stock as a second revenue stream.

Fifth Season describes their organization as a “full service local food broker.” It appears they do far more than that since they feature two exclusive products from their cooperative. Both products are a frozen vegetable blend that is sourced exclusively from the local region and processed without added sodium, fat or preservatives.

For More Information Visit - <http://www.fifthseasoncoop.com>

Foster-Caviness

This privately-owned business in North Carolina has ventured into local foods aggregation through the development of a Cross Dock Consolidation Center (CCC). A CCC offers only aggregation and cooling functions. The marketing, sales, and distribution is turned over to the existing wholesaler. This model helps to reduce the costs of marketing and distribution for producers and capitalizes on the existing infrastructure of the wholesaler. Foster-Caviness has created the Friends of Farmers Local Produce Program to assist local producers in getting their produce into larger and more competitive markets in North Carolina.

The cross-dock facility owned by Foster-Caviness supports and assists local producers and value-added producers from incubator kitchens, the NC Cooperative Extension and the NC Dept of Agriculture’s Got to Be NC, local foods program. Foster-Caviness provides the majority of North Carolina public schools with fresh produce, as well as all of the North Carolina military bases. Supporting local producers and locally made value-added products complements the culture and philosophy of the locally owned and family operated business.

For More Information Visit - <https://www.ncgrowingtogether.org/news/foster-caviness-opens-local-food-aggregation-center-in-raleigh/>
<http://www.foster-caviness.com/programs.php>



NEXT STEPS

While this document is designed to assist the communities in the study region specifically with business and organizational development of production nodes and a food aggregation system, it is important to consider a few other challenges and opportunities we identified during the course of this study.

Nurture Current Relationships with Producers

There is a need to continue to identify producers and build relationships with and among them. During our outreach in Young, we learned that while members of the community are fiercely independent, producers in Young were already a close-knit group. They were sharing production techniques and canning and preserving techniques. This type of cohesiveness among producers does not exist in other areas of the region. Young has a definite advantage in forming an organization or structure to build their local food economy.

Technical Assistance

There is also a need for technical assistance in the following areas: 1) marketing and branding among food business owners, 2) connecting local producers with rental facilities, local markets and capacity building and 3) facilitating bi-monthly producer gatherings to build networks and cohesiveness among producers.

Educating and Encouraging Youth in Food System Opportunities

While meeting with high school students in Globe and Superior, we discovered that students are largely unaware of how food systems operate, where their food comes from and how food can positively or negatively impact their career opportunities. Students shared the following comments with us.

“No one has ever come and talked to us about food before.”

“Our food comes from the Sysco truck.”

“If I raised another steer as part of my FFA project, I wouldn’t have anywhere to sell it.”

“I want to be a personal trainer. Knowing about this stuff (food) would be important.”

“I have a small goat operation and am making soap and other products. I’d like to buy more goats and make more products, but don’t have the money.”

With the average age of producers in Arizona at 61, there is an urgent need to educate and generate interest among youth about agriculture and food in the Copper Communities region. Globe High School has a strong and growing FFA program. Superior high school has a great culinary arts program and Miami high school is starting a culinary arts program in the Fall of 2017. The Cobre Valley Institute of Technology (CVIT), the Joint Technological



Education District, is interested in growing and expanding these CTE programs with the above mentioned schools. Collaborating on and expanding these and other programs should be a top priority for the region.

Clear Communication and Clarifying Misconceptions

As we worked across the region, we discovered numerous inaccurate assumptions and misconceptions associated with growing and producing food. Those misconceptions ranged from information about growing methods, food safety, and regulations to conspiracies among “big ag” (ie commodity farmers) and a mistrust of government and government funded programs and opportunities. Without straightforward communication between all producers, consumers and stakeholders, the conversation and therefore the action necessary for a food hub to develop, will be mired in mistrust and inaccurate information. Stakeholders should offer Q&A sessions on a routine basis for producers and retailers to obtain accurate information in a friendly and open environment.

Community Education

The convenience culture has penetrated the Copper Communities region as well as the rest of the U.S. We found during the course of our study that a significant number of adults and students do not have the skills or information to grow, prepare or preserve their own food. This hinders the development of a local food economy. These basic self-reliance skills are critical to the success of a local food system. Residents need the opportunity to learn how to grow, prepare and preserve their own or locally grown food. There is a tremendous opportunity to work with CVIT and the high schools in the area to expand their culinary arts programs into community education programs and community events. There are community and school gardens emerging throughout the region that need stakeholder and community support. Other potential partners should be invited to join this effort such as county health departments, non-profits focused on serving the poor and socially disadvantaged and faith-based organizations.



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