Mitchell County

Farm to School and Farm to Hospital
Feasibility Study

Prepared by
Land In Common, Smithson Mills Inc.
for
Mitchell County Cooperative Extension

2011
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Cover images:

Children with Apples: Upper Valley Farm to School [www.uvfts.org](http://www.uvfts.org)
Potato Farmers: [www.americasheartland.org](http://www.americasheartland.org)
Packing House: [www.pilotmountainpride.com](http://www.pilotmountainpride.com)
Mitchell County Farm-to-Institution

Feasibility Study – Executive Summary

The Mitchell County Cooperative Extension office, in collaboration with its Agricultural Advisory Board, determined that the county’s agricultural future depends in part on farm profitability and accessing new markets. The need for a central facility and system for collecting, processing, distributing and marketing farm products is one of the most important steps that can be taken to ensure that the county’s farms continue to be a viable part of the WNC agricultural economy. With funding from the Z. Smith Reynolds Foundation, and in partnership with Land In Common and Smithson Mills, Cooperative Extension has prepared this Feasibility Study with this vision in mind, prompted by the county’s interest in achieving three interrelated goals:

- Increase access to healthy, local foods for students and staff in Mitchell County Schools;
- Increase access to healthy, local foods for patients, staff, and visitors at Blue Ridge Regional Hospital;
- Support local farms in the county through institutional purchasing.

Recommendations (based on farmer surveys and school/hospital interviews)

Yancey County is conducting a similar assessment and should be considered a potential partner for Mitchell County in efforts to expand distribution of local farm products. In conjunction with Yancey County:

1. **Identify short-term (1 – 3 year) opportunities** for serving schools, hospitals, and retail buyers in the region with Mitchell County farm products, and develop a business plan for meeting those opportunities.
2. **Determine the type of partnership organization** (multi-county, public-private, cooperative, LLC, other) that would be suitable for collection, processing, storing, marketing, and distributing Mitchell-grown farm products.
3. **Select specific fruits or vegetables** that grow well in Mitchell County, are relatively easy to harvest and process, store well, easy to transport, and are used regularly by Mitchell County Schools and Blue Ridge Regional Hospital food service staff and retail buyers, such as potatoes, cabbage, and apples as identified in this report. Promote production of these varieties among Mitchell County farmers.
4. **Identify specific farm types and farms that may participate** in a distribution entity, such as small diversified farms, and those that responded positively to the farmer survey.
5. **Outline processing/distribution options** (central facility, mobile facility, cold storage).
6. **Develop food preparation and value-added processing options** for farmers and food service staff (canning, sauces, sauerkrauts).
7. **Identify feasibility of long-term (3 – 10 year) opportunities** for serving schools, hospitals and retail buyers with Mitchell County farm products

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Introduction

Purpose and Overview

Cooperative Extension of Mitchell County, North Carolina (Extension) conducted this Farm to School and Farm to Hospital Feasibility Study (the Study) to determine the potential for establishing a system for distributing fresh, locally-grown foods into the breakfast and lunch programs at Mitchell County Schools (MCS) and the food service program at Blue Ridge Regional Hospital (BRRH). The study includes an assessment of potential demand from these institutions and additional local retail markets for Mitchell County-grown farm products. A series of farmer surveys and interviews were also conducted to determine interest and ability to participate in a distribution system for local farm products. Funding for the project was generously provided by a grant from the Z. Smith Reynolds Foundation.

The Mitchell County Agricultural Advisory Board, which includes farmers as its members, recognizes that farming is at a crossroads in the county. The average age of Mitchell farmers as of the 2007 Census of Agriculture was 58.7, and two-thirds of farm operators reported that their primary income is from off-farm sources. Many farms will change hands in the coming years. Following the tobacco buyout, the leading agricultural commodities in the county in terms of income are Christmas trees, nursery trees/shrubs, and beef cattle. The launch of farmers’ markets in Bakersville and Spruce Pine, and the burgeoning local food economy in Western North Carolina (WNC) are signs that new opportunities are emerging for farmers. However, in their 2007 study, Growing Local, the Appalachian Sustainable Agriculture Project (ASAP, 2007) estimated that unmet demand by western North Carolina consumers and businesses was as high as $36.5 million annually for produce and $452 million for all foods (including meat, dairy, and processed foods). The future of farming in Mitchell County, as in much of WNC, depends on strategic decisions made now.

The Mitchell County Agricultural Advisory Board recently recommended that a central facility and system for collecting, processing, distributing and marketing farm products is one of the most important steps that can be taken to ensure that the county’s farms continue to be a viable part of the WNC agricultural economy. Extension has prepared this Feasibility Study with this vision in mind, prompted by the county’s interest in achieving three interrelated goals:

1) Increasing access to healthy, local foods for students and staff within the school district;
2) Increasing access to healthy, local foods for patients, staff, and visitors at the hospital;
3) Supporting local farms in the county through institutional purchasing.
These goals, and conclusions about the feasibility of achieving them, are based on an analysis of three levels of needs:

**Economic Recovery in Mitchell County** – the County has suffered the combined effects of job losses in the textile industry and declines in agricultural income tied in part to the tobacco buyout.

**Local Farm Viability** – Mitchell County farmers are declining in number and increasing in average age. To remain viable, farmers seek consistent markets for their farm products, and need systems for marketing and distributing those products.

**Institutional Food Service Requirements** – Food service programs at Mitchell County Schools and Blue Ridge Regional Hospital must offer diverse options for regular, nutritional meals while staying within budget limitations.

Mitchell County Cooperative Extension has been developing a role in collaborating with the Appalachian Sustainable Agriculture Project’s (ASAP) Farm to School and Farm to Hospital programs. Through initiatives in 2008 and 2009, Extension and ASAP have coordinated with Mitchell County Schools on pilot projects for purchasing local potatoes and apples, hosting farm tours, and assisting with school gardens. Extension and ASAP also worked with Blue Ridge Regional Hospital in Spruce Pine on a pilot project for potatoes and apples. Extension is focused on identifying these needs and understanding how to build the economic and community relationships necessary for successful Farm to School and Farm to Hospital programs. This includes defining the roles of institutional food buyers, food service companies, farmers, and customers, and outlining the resources and infrastructure required for bringing local farm products into county schools and the hospital. This report assesses and describes the most feasible distribution options.

Farm to School and Farm to Hospital programs have become widespread across the country in the past decade, as educators, parents, health care professionals, and the general public become more aware of the importance of healthy diets and the value of fresh, local foods as part of those diets. While these programs may vary greatly in scope, there are several keys to
success that are commonly reported by schools and hospitals, and the National Farm to School Network, and that are strongly recommended for Mitchell County:

- **Start Small and Build Gradually** – rather than set out on an ambitious program to link schools or hospitals to many farms providing a wide range of farm products, programs should begin with the “low hanging fruit”, with a small number of farms providing only products grown in consistent sizes and quality, processed, stored, and distributed efficiently, at a cost that meets the needs of both the food buyer and the farmer.

- **Ensure Cooperation and Engagement from Stakeholders** – school or hospital administrators, food buyers, food service employees, school and hospital staff, family members, patients and school students, agricultural professionals and farmers can each play a role in developing programs linking farms and institutions.

- **Make the Educational Connection** – whether it is nutritional education in the classroom, or an Appalachian Grown logo on a hospital menu, customers of hospital and school food services have an opportunity to make the connection between the local farms and farmers and the healthy foods they produce for the institution. Customers may also share their understanding of the value of local foods at home and in the community.

- **Build Community Awareness and Support** – building community support for local foods on hospital and school cafeteria menus requires a multi-pronged effort that includes word-of-mouth, signage and educational materials and programs, and working with local media outlets.
Overview of Farm to Institution Programs

The concept of local farmers supplying local foods to schools and hospitals is nothing new. Since the early 1900’s, as public schools and community hospitals were increasingly common across America, farmers were often the main suppliers for institutional cafeterias, particularly in rural areas, either through direct sales or regional distributors. As large food distribution companies formed and grew across the country, school districts and hospitals entered into contracts with regional or national distributors whose trucks delivered a variety of products aggregated from national or international distributors.

This system impacts farmers, institutional food buyers, the customers they serve, and local economies in a similar manner. These impacts of can be measured in economic, ecological, and health and nutrition. Every food dollar spent on local businesses and farms within a community, rather than those based in other areas, circulates within that community. Across America, it is estimated that only seven percent of all food dollars spent stay in the community, a number that was as high as forty percent 100 years ago. Careful planning of regional food systems could retain more food dollars in communities once again (Food and Water Watch, 2007).

In places like Mitchell County, this difference can translate directly to farm profitability, job creation, and a stronger tax base. As oil prices continue their projected rise in the coming years, the national and global food systems which rely so heavily on oil will be less competitive than locally grown foods, that travel fewer food miles from farm to plate. Fewer food miles also translate to fresher, more nutrient-dense fruits and vegetables, and less carbon emissions for the atmosphere. Small-scale farming operations such as those in Mitchell County tend to rely less heavily on toxic chemicals than larger industrial farms.

The food miles traveled by the typical ingredients found on school or hospital menus often mirrors the national average of over 1,500 miles from farm to plate. As miles increase, and as harvested fruits and vegetables may spend days or weeks in trucks and warehouses, the nutritive value of these foods decreases. The ecological impact of these food miles uses fossil fuels and adds to carbon dioxide emissions and other pollutants in the atmosphere.

The benefits of Farm to School and Farm to Hospital programs are similar for farmers, institutional food buyers, and the customers they serve.

Farm to School

Farm to School programs have been growing in number across the country, with 1,000 districts in 32 states currently participating at some level as part of the National Farm to School Network (www.farmtoschool.org). These programs typically involve at least the purchase of local farm products, and sometimes broader educational components.
According to the Community Food Security Coalition, Farm to School programs work best when they are comprehensive, integrating the local purchase of food with agricultural and nutritional education as part of standards-based curricula in the classroom. Such programs help students make the connection between what is served in the cafeteria and what is taught in the classroom. In addition to local food purchases and educational components, comprehensive Farm to School programs may include hands-on visits to farms and farmers’ markets, planting school gardens linked to science and math lessons, farmers talking to students in class, and composting and recycling programs (www.foodsecurity.org).

In Mitchell County, as with any community, the key to success in Farm to School programs is involvement of key stakeholders and efforts to include all interests. Parents, students, school board, school staff, and farmers should all be involved. They are often organized by coalitions with some combination of farmers, school boards and staff, parents, and community groups. School food service staff members are key in the design and implementation of successful Farm to School programs.

Farm to School in North Carolina

Farm to School in North Carolina originated through a partnership between the Department of Defense and the Markets and Food Distribution Division of the North Carolina Department of Agriculture and Consumer Services (NCDA&CS) in 1997. The program began by testing the market for Red and Golden Delicious apples grown in Western North Carolina. After the success in Western North Carolina, the North Carolina Farm to School Program was expanded throughout the State. All school districts in North Carolina have the ability to be part of the North Carolina Farm to School Program and in 2004, about sixty school districts took advantage of this opportunity. As of the 2008 – 2009 school year, the Department of Defense has transferred its responsibilities to NCDA&CS Food Distribution and Marketing Divisions, which use their fleet of trucks to deliver farm products to schools. During the 2009 – 2010 school year, the program delivered 46,310 cases of fruits and vegetables worth $786,523 to schools throughout the state (www.ncfarmtoschool.com).

Local purchasing programs with the additional focus on educational aspects of farm to school, school gardens, nutrition education and farm tours are also operational in specific school districts, and have been emerging in Mitchell County Schools.

An estimated 67 school districts in the state participate in Farm to School programs at some level, with the most common being the North Carolina Farm to School Program. The National Farm to School Network website lists two school districts and one private school as examples,
all of which are in Western North Carolina. Madison County Schools is listed as purchasing locally through Madison Farms, a regional distribution center for farm products. Through its Growing Minds program, ASAP has worked with schools in the county to promote farm field trips, cooking classes, tastings, and meet-the-farmer events. Henderson County Schools is purchasing from a local distributor, Carolina Produce, and has also had ASAP organize promotional events for local foods in the cafeteria. The Arthur Morgan School, a private boarding/day school for grades 7 - 9 in Celo, has its own organic farm where students and staff work to provide food for the school and boarding houses. Mitchell County Schools participates in the DOD program, and has also initiated projects connecting farms with schools, and could also be listed as one of the examples in the state.

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Farm-to-Hospital

Farm to Hospital programs have been emerging across the country as health care professionals are coming to realize that the healthy diets they promote as preventative medicine are not always consistent with the foods served in hospital cafeterias and bedside meals. Hospitals have a mission to promote the health of communities and patients, yet this mission is not evident in the menus offered by many hospital cafeterias and kitchens. At a time when obesity
is reaching epidemic levels in the United States, and diet-related illnesses such as diabetes and heart disease increasing dramatically, hospitals often turn to unhealthy, processed fast foods as a cost-cutting measure.

Farmers and hospital food buyers in some communities are working together to improve the freshness, quality and nutritional value of hospital food while opening new markets for small and medium sized farmers. Some hospitals are going one step further by offering local organic or sustainably-grown foods and natural, pastured meats, reducing potential exposure of patients and staff to pesticides, herbicides, growth hormones, and genetically-modified organisms (GMO’s).

Over 239 health care facilities across the country have signed the “Healthy Food In Healthcare Pledge”, a framework for the health care industry to use in committing to offering fresh, local, sustainable food options to improve the health of patients, communities, and the global environment. Specifically, hospitals signing this pledge agree to “work with local farmers, community-based organizations, and food suppliers to increase the availability of fresh, locally-produced food.” (Healthcare Without Harm, 2011). In 2008, the president of the American Medical Association stated that hospitals could “become greener by serving fresh, local, or organic foods to patients, staff members, and visitors.” (HCWH, 2011)

Farm to Hospital Programs can be found in communities across the country and, while there are many variations, they are typically centered on efforts to bring fresh local farm products into hospitals.

Benefits to hospitals include:

- using their purchasing power to support the local agricultural economy
- offering their patients, guests, and staff the kind of nutrient-dense foods that are essential for prevention of disease and promotion of good healthy eating habits
- providing models of healthy diets for the community to follow

Benefits to farmers include:

- a guaranteed, consistent market for their farm products
- an incentive to form networks and leverage resources for marketing and distribution
- an opportunity to promote their local farm products as part of a healthy diet
One of the first Farm to Hospital efforts appeared in 2003 in Oakland, California, when Dr. Preston Malin began hosting a weekly farmers’ market in a hospital parking lot. Soon, this effort expanded to include a Community Supported Agriculture (CSA) option and a program to include local foods on hospital menus for patients, staff, and visitors. “It just struck me – unless you make good health easy in a community, it’s just not going to happen,” says Malin. “If we were going to reach people, why not bring it to where so many people congregate. And good food is so fundamental to prevention and good health.” Today, Malin’s program works with a network of 100 farmers to provide local foods for 6,000 meals a day at 20 Kaiser Permanente hospitals in northern California. Local foods represent 100 tons out of the 250 tons of food per year the system purchases. Farmers, local foods advocates, and health care professionals in Western North Carolina (WNC) can work together to build similar relationships.

In North Carolina, NC Prevention Partners is promoting local foods as part of its “Focus on Healthy Hospitals” campaign. Park Ridge Hospital in Henderson County has achieved a “Red Apple” rating from the program, indicating that it has reached defined goals as part of its action plan for offering healthier food options. Park Ridge Hospital has its own independent food service that works with Asheville-based Mountain Food Products and local farms to source much of the food it serves, including purchasing local, grass-fed beef from Hickory Nut Gap Farm instead of beef from national companies. ASAP’s Appalachian Grown labels are used to indicate when these foods are included on hospital menus. One of the keys to their success in buying locally has been the commitment of food service staff and support from the hospital administration. Food service staff at Park Ridge are setting a model for other hospitals by asking distributors for local produce, developing relationships with farmers, offering seasonal menus, and adding local foods into their salad bar, hot bar, sandwiches, and patient food.

The report, Farm to Hospital: Supporting Local Agriculture and Improving Health Care, prepared by the Community Food Security Coalition and Occidental College Center for Food and Justice, includes a list of 10 steps hospitals can take to improve food:

1. Start a conversation about healthy food with nutritionists, food purchasers, physicians, and hospital administrators.
2. Develop a food purchasing policy that addresses health and environmental concerns.
3. Work through your existing supplier and distributor to purchase local farm products.
4. Contract with a group purchasing organization, distributor, or food service provider that supports healthy food.
5. Buy directly from local producers.
6. Become a fast-food free zone.
7. Limit use of vending machines and replace unhealthy snacks with healthy choices.
8. Host a farmers’ market or CSA on hospital grounds.
9. Model local, nutritious, sustainable food at conferences, meetings and workshops.
10. Create hospital gardens to grow fresh produce and flowers.

As described in the interview with staff at Blue Ridge Regional Hospital, some of these steps have already been taken and can be revisited, while others may offer new opportunities not yet considered or tried.

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Email: marion@foodsecurity.org
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Mitchell County Agricultural Profile

Mitchell County is a mountain community with 141,713 acres of primarily wooded land (76 percent) with a relatively high elevation, averaging 3,000 feet above sea level between a low of 1,700 feet and a high of 6,313 feet. As of 2007, farmland in the county consisted of approximately 22,787 acres (16 percent of the county) in farms, primarily pasture and hay land, with an estimated 5,000 acres in cropland. The acreage of farmland declined by over 3,000 acres in the five preceding years since 2002. The average Mitchell County farmer is 58 years of age.

As of 2007, farming in Mitchell County was an $11 million industry, with an average income of $35,000 per farm. Christmas trees have been a growing part of the agricultural sector for the past 50 years, and replaced Burley tobacco as the leading cash crop in 1996, with over 200 producers growing trees on 1,300 acres, with an estimated $4.5 million in sales (MCEDC, 2011). Burley tobacco was grown on 410 acres on 108 farms in 2002, and only 63 acres on 19 farms in 2007, a decline of over 80 percent of acres and farms in tobacco production. Tobacco income declined 85 percent from $1,037,000 in 2002 to just $155,000 in 2007. Other farm products include landscape ornamentals (the second leading cash crop), beef cattle, hay, apples, trout, vegetables (potatoes and beans), and medicinal herbs.

Importantly, food production and sales income have increased in the county since the tobacco buyout. Sales of fruits and vegetables have increased over 400 percent in the five years from 2002 to 2007. Vegetable production in the county during that period went from 7 farms growing $30,000 worth of vegetables on 8 acres to 24 farms growing $126,000 worth of vegetables on 53 acres. Production of fruits, tree nuts, and berries went from 3 farms growing $64,000 in value to 15 farms growing $280,000 in value.

The 2007 Agricultural Census lists 314 farms in Mitchell County, averaging 73 acres in size, down from 358 farms in 2002. The majority of farms are between 10 and 179 acres. 24 farms are between 180 and 499 acres, 5 farms are over 500 acres, and no farms are over 1,000 acres.

The average per acre market value of land and buildings is approximately $369,209 per farm, or just over $5,000 per acre. The average farm includes equipment and machinery with a market value of $40,580. The vast majority of farms, nearly half, report less than $2,500 in sales, while only 11 farms reported sales of $50,000 or more.
The top income producing commodities listed in the Agricultural Census are as follows:

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<td>Greenhouse &amp; nursery</td>
<td>$2,760,000</td>
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<td>Non-farm forestry</td>
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<td>Fruits &amp; vegetables</td>
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<tr>
<td>Hay &amp; other crops</td>
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<tr>
<td>Potatoes</td>
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</tr>
<tr>
<td>Burley Tobacco</td>
<td>$100,000</td>
</tr>
<tr>
<td>Corn</td>
<td>$19,000</td>
</tr>
</tbody>
</table>

In 2007, Mitchell County farms reported 217 farmworkers (some migrant) on 57 farms with a payroll of $495,000.

Production Base – Fruits and Vegetables

According to the 2007 Census of Agriculture, Mitchell County has 24 farms on a total of 55 acres harvesting vegetables for sale. Of these 24 farms, 23 of them are less than five acres. Mitchell County also has 13 farms in orchards on 71 acres, with 7 orchards having less than 5 acres. These low volume outputs do not appear to provide an adequate supply for wholesale aggregation in Mitchell County alone.

One of Mitchell County’s assets, its natural beauty, can in some respects become a hindrance. Because of Mitchell County’s high elevation, the growing season is later and shorter than in some surrounding counties. This makes it difficult to sell into the school system, because the window of demand (August to May) does not match up well with the window of supply, which tends to be June through September. While season-extension technologies, especially hoop house and greenhouse production, can extend the harvest season, Mitchell remains at a competitive disadvantage compared to other, warmer areas.

Farming History

Mitchell County’s agricultural profile has changed greatly since its incorporation in 1861, however, it’s past successes and failures offer insight into what farm goods may be considered for future production. A 1939 – 1940 report entitled Discovering Mitchell County, prepared by
teachers and pupils of Mitchell County, includes a snapshot of agriculture at the time. In the late 1800’s, corn and hay were then the chief crops, as feed for cattle and horses. Wheat grew well in the valleys. Some dairy cows, beef cattle, potatoes (Chippewa, Irish Cobbler, Green Mountain), green beans, and burley tobacco were widely grown. Onions, berries, cherries, and apples were also common. At the time, cattle were predicted to be a major part of the future of agriculture in the county, though the small size of farms, the relatively high cost of fencing, and uncertainty of marketing discouraged this increase until at least the mid-1900’s.

Of the 1,500 farms documented in the county in 1940, there were 120 tenant farmers, and the rest were family-operated. 83,648 acres of the county were farmland, with 35% cropland, 23% orchard, and 12% pasture, and the remainder in woodland. 7,050 acres of corn was grown in 1938, earning $17.22 per acre. Wheat grew on 1,000 acres and earned $10.50, while 2,430 acres of rye and oats were grown for livestock feed. 880 acres were planted in potatoes that year, producing 75,990 bushels at $57.62 per acre (the second highest value crop). Tobacco that year was valued highest at $202 per acre. 2,290 beef cattle were raised in the county in 1938. Milk was sold to Biltmore Dairies for earnings of $10,000 that year. Sheep were present, though fencing was too costly for higher production. Cooperative marketing of lamb and wool proved successful for some farmers.

In general, there was a belief among local farmers that they could sell more if there were better means – “cooperative marketing”, especially for perishables. Apples were well adapted to the region, though again, marketing proved to be a problem. There were a few larger orchards in the early 1900’s, some of which shipped to northern markets, but it wasn’t until the 1960’s that a group of apple growers formed a short-lived cooperative to increase marketing to grocery store chains. The Holston Orchard at Altapass produced 7,500 bushels of apples per year. Irish potatoes were considered abundant and profitable in the early 1900’s, as were some medicinal herbs.

The Tennessee Valley Authority maintained canneries in the region, including the Green Mountain Cannery in Mitchell County, to process beans, cabbage, berries, fruits, and turn otherwise wasted produce into cash for farmers. Stokley Brothers Cannery in Newport, Tennessee also bought vegetables from local farmers.

The relative isolation of Mitchell County was broken in the early 1900’s with the advent of the C.C. and O railroad, which opened up the mica, feldspar, and clay mining industries. One-third of the men worked in the mines or mineral plants, and most were at least part-time farmers.
By the 1930’s, the consolidated schools replaced smaller one-room schools. These allowed for larger facilities such as school cafeterias. At that time, it was likely that most food served in schools and the hospital were locally grown.
Needs Analysis and Market Analysis

As described in the Introduction, the needs for supplying local farm products to local institutional food programs can be assessed on three levels: 1) the economic recovery needs of Mitchell County, listed by the NC Department of Commerce as an economically-distressed, Tier One county; 2) the need for local farms to remain viable and prosperous; 3) and the need for institutional food buyers to provide healthy meals to their customers while staying within budgetary limits. This Study will highlight needs 1 and 2, while focusing on the third level in greater detail.

Economic Recovery Needs in Mitchell County

According to the US Census Bureau, as of 2008, 17.2 percent of Mitchell County’s residents lived below the poverty level (US Census, 2011). Job losses from the closing of three local textile plants and the loss of income from tobacco farming have had serious impacts on the local economy. Mining is the primary employer in Mitchell, while tourism generated an estimated economic impact of nearly $20 million in 2008 and $1.76 million in tax revenue (MCEDC, 2011). The Blue Ridge Parkway, Roan Mountain, and the Appalachian Trail are the primary tourist attractions. With unemployment rates exceeding the state average, and loss of population, Mitchell County is focused on economic recovery, job training and job creation. Diversifying the agricultural sector and expanding local food businesses is an important strategy for strengthening the county’s economy. In its 2007 study of WNC’s local agricultural economy, Growing Local, ASAP identified an estimated $35.6 million in unmet demand for fresh local fruits and vegetables, and $452 million in unmet demand for all local foods, including meats, processed foods, and dairy. Mitchell County can position itself to play a role in meeting this market demand.

Local Farm Viability Needs in Mitchell County

The average market value of products sold from Mitchell County farms as of the 2007 Census of Agriculture was $11,363. Christmas trees and nursery crops are the two largest sources of farm income. While this was a 5 percent increase over the 2002 figures, it is relatively small for WNC counties. 78 percent of farms in the county (246) report incomes of less than $10,000 (less than 1/3 of median household income) from sales of farm products. Mitchell County has the potential to position itself as part of the local food economy in WNC, and for increasing farm incomes so that a greater percentage of median household income is derived from farming.
Consumer Base

The 2010 U.S. Census recorded 15,579 people in Mitchell County, a slight decline from 2000 Census levels. Per capita income in 2009 was estimated at $18,522, with median household income of $33,118. The unemployment rate in the county in January 2011 was 13.2%. This low population level, along with a low per capita income and high unemployment rate, indicates that sales potential for high value locally grown foods is limited within the county. However, Mitchell County does enjoy a healthy tourism industry, and in summer and fall months the number of people residing in the county is substantially higher, with visitors tending to have higher disposable incomes than locals. In addition, enrollment in the federal Supplemental Nutrition Assistance Program (SNAP), formerly known as Food Stamps, in Mitchell County has doubled between 1999 and 2009, with nearly 2,100 residents (13.4%). This number is expected to be increasing, as indicated by the 21% statewide increase in SNAP participants in North Carolina between 2010 and 2011.

Regionally, Mitchell County is located adjacent to the Asheville Metropolitan Statistical Area (MSA). The Asheville MSA is comprised of Buncombe, Madison, Henderson, and Haywood counties, with a combined 2009 population estimated at 412,672. Buncombe, the largest county, had an estimated population of 225,869 with a per capita income of $26,209 and a median household income of $43,750. Bakersville, the county seat of Mitchell, is located approximately 53 miles from Asheville, the county seat of Buncombe and the largest city in Western North Carolina.

Institutional Food Service Requirement Needs in Mitchell County

This section will assess the current food procurement system for Mitchell County Schools and Blue Ridge Regional Hospital, and potential demand for local food in schools based on assessment of National School Lunch Program and Farm-to-School (www.farmtoschool.org), and ASAP Growing Minds (southeast regional lead agency for the national Farm-to-School Network).
Overview of Farm Product Distribution Programs in North Carolina

Western North Carolina is home to a number of good models for locally-owned and operated distribution companies, some of which service institutional buyers. Several of these are summarized below to offer strategies and systems that may be appropriate for Mitchell County.

Madison Farms (www.madisonfarms.org)

Sorting and packing line at Madison Farms facility

Madison Family Farms (MFF) is a nonprofit organization working to enhance and improve small family farms and the agricultural business climate in Madison and surrounding counties. MFF provides basic facilities and services, information and education, marketing and public relations for local farms and farm businesses. MFF formed in 2006 as a collaborative effort between Madison County farmers and Cooperative Extension to address the future of farming and assist farmers with transitioning to other products following the 2005 Tobacco Buyout. The project has been supported by generous grants from GoldenLEAF, the Rural Internet Access Authority, the Duke Endowment, and the Madison County Agri-Business Center.
One of MFF’s main tools for promoting local farm products is the Farm Finder feature of its website listing 197 family farms and the products they sell, and also local food and agritourism businesses. Another tool is a Value Added Center, a centralized aggregation, processing, and distribution facility for local farm produce. This center allows farmers to wash, sort/grade and pack produce.

Delivery to schools

Pilot Mountain Pride (www.pilotmountainpride.com)
Sorting and packing line at Pilot Mountain Pride

Pilot Mountain Pride (PMP) is a 6,000 square foot aggregation center for farm products located in an old hosiery mill in Surry County, distributing farm products from over 60 small- to medium-size farms to retail and institutional markets in the Winston-Salem area. The project was started in part with a grant from the GoldenLeaf Foundation in partnership with Surry County Cooperative Extension, and is intended as an economic development strategy for area farms.

Pilot Mountain Pride does more than aggregate and distribute. Its focus on marketing allows area farmers and specialty crop growers to access and increase sales to a variety of retail and institutional buyers. PMP also has a training function, assisting farmers in learning proper grading, packaging, marketing and distribution.

One key to PMP’s success has been the funding and technical support it received from a variety of partners, including:

- Surry County – funding for start-up costs, ongoing partner
- GoldenLEAF Foundation – grant funds for operations and equipment
- NC Rural Economic Development Center – grant funds for operations, marketing, and equipment
- NC Tobacco Trust Fund – grant funds for operations, marketing, and equipment
- Wake Forest School of Law – in-kind legal services
- Farm Bureau – purchased a vegetable wash line, scales, ice machine, used delivery truck
- NC Cooperative Extension, Surry Center – outreach and GAP training to farmers, facilitate GAP Plans for individual farm members and coordinate gap inspections.
- Surry Telephone Membership Corporation --- funding for computer equipment
- NC Department of Agriculture – funds for equipment purchase
- NC Department of Commerce – funding a 3 year economic impact analysis with Wake Forest School of Business
- USDA – Rural Development – funds for a new delivery truck
- Carolina Farm Credit – funds for equipment purchase
- Bank of America -- funds for equipment purchase

This extensive list offers a sense of how Mitchell County can leverage similar resources and partnerships.
New River Organic Growers (www.newriverorganicgrowers.org)

New River Organic Growers refrigerated truck

New River Organic Growers (NROG) was established in Boone, NC in 2000, and started with sales of organic produce and some meats to local restaurants. NROG is one of the more successful examples in WNC of how farmers can work together with Cooperative Extension to get products to market. This business is seasonal with more tourists patronizing High Country restaurants in the warmer months. NROG includes 36 farmers (8 more than last year) from 5 counties in northwest NC. Four of these are large-volume farms, and five are meat producers who are Animal Welfare Approved (humane, free-range). The High Country CSA buys NROG produce under contract. Some produce is sold through Eastern Carolina Organics (ECO) by “back-hauling” otherwise empty trucks coming up or down the mountain. NROG is in discussion with ASU about the potential for marketing produce for its food service, especially to meet winter demand for staple crops using high tunnels and greenhouses.

NROG is willing to market produce from commercial and non-organic growers separately. Specialty crops include red winter wheat for bread flour, shitake mushrooms and apples. They also emphasize staples such as lettuce, tomatoes, and onions. NROG hosts potluck dinners for farmers to socialize, and to recruit new farmers. NROG is seeking to expand with more farmers – the demand exceeds their supply. There are not enough food farmers to feed all local residents, and most beginning farmers are in need of land.
Eastern Carolina Organics (www.easterncarolinaorganics.com)

ECO staff/owners and farmer/owners

Eastern Carolina Organics (ECO) is a farmer-owned limited liability corporation (LLC) that operates like a cooperative but is organized as a private company with profit-sharing (www.easterncarolinaorganics.com). ECO, based in the Triangle area of central North Carolina, was formed by a group of farmers in 2004 as a project of the Carolina Farm Stewardship Association (CFSA). It was initially funded by a $48,000 start-up grant from the Tobacco Trust Fund Commission. While their focus has been on organic farms and farm produce, ECO is primarily a marketing and distribution company supporting its 13 grower/owners and 2 staff owners, and 40 additional farmers. Its customer list is growing, with more than 100 retail and institutional buyers.

ECO’s key to success is in working closely with both its farmers and customers. Each year, ECO’s growers work with a Production Coordinator to set up crop plans based on market demand and farm resources. This allows a year-round supply of fresh local produce and reduces overproduction. When demand exceeds supply, ECO works with additional farmers in different regions to bring in more product. Each week, orders are placed by customers. ECO trucks regularly pick up produce at the farm, and either deliver it directly to customers who place orders, or keep it in cold storage at their facility in Pittsboro, NC.
Representative Food Purchaser Interviews

Market research interviews were conducted in Mitchell County with local beef producer Doug Harrell, Mitchell County Schools Child Nutritionist Heather Calhoun, and the produce managers at Ingles and Wal-Mart in Spruce Pine. A telephone interview was conducted with Doris Grindstaff, food buyer at Blue Ridge Regional Hospital. The goal was to learn more about the perspectives on local food marketing in Mitchell County and surrounding areas, receive guidance on measuring demand for locally grown foods, learn more about the logistics of how the school system purchases products from a farmer distribution network, and determine who might be likely to play an advisory role in the formation of such a network.

Out-of-county interviews were conducted with the vice-president of Ingles Markets, the produce manager at Greenlife Grocery in Asheville, and the produce manager at Mountain Foods, a local foods distribution company located at the WNC Farmers Market in Asheville.

Barriers to market entry regarding preparedness must be stressed: potential local producers must ensure that they have GAP/HACCP certification and a minimum of $1,000,000 in liability insurance.

One main issue concerning the viability of food production and distribution is continually rising costs of fuel. This raises not only food transportation costs, but also the costs of any petroleum based product used on the farm. In a large nationwide food distribution system, food prices rise in accordance with fuel prices. Food imported from far beyond the local region is becoming more expensive to buy. If the price gap between industrial commodity food and local food gets too wide, this will provide an advantage for local producers. Their farm products would be cheaper and more competitive than food trucked in from around the nation and the world.

Interviews with Institutional Food Buyers

Interview process, results and findings

Initial interviews are conducted with school and hospital food buyers, asking general questions about the requirements they each have for meeting nutritional and financial goals, food preparation needs, and the current food purchasing contracts they have. Interviews were also conducted with retail food buyers at Walmart and Ingles. The goal of these interviews was to learn more about the perspectives on local food marketing in Mitchell County and surrounding areas, receive guidance on measuring demand for locally grown foods, learn more about the
logistics of how the school system purchases products from a farmer distribution network, and determine who might be likely to play an advisory role in the formation of such a network.

These interviews are also intended to let the food buyers know about the feasibility study, to gauge their receptivity to participating in local food purchasing efforts, and to understand their sense of what farm products would work best as an initial pilot project. The follow-up interviews are then conducted based on the specific farm products identified, and how well these fit with what farmers are currently growing (or would be willing to grow). Follow-up questions center on the logistical details of how and when the produce would need to be picked, washed, graded, stored, and delivered.

Heather Calhoun – Director of Child Nutrition
Mitchell County Schools
72 Ledger School Road
Bakersville, NC 28705
Email: Hcalhoun@mcsnc.org
Phone: 828-766-2240

*Interviews February 17, 2011 and March 11, 2011*

According to Heather Calhoun, Director of Child Nutrition for Mitchell County Schools (MCS), the school district is interested in working with local farmers to source certain fruits and vegetables that can be grown locally and distributed consistently and in the right sizes during the school year. These may include products such as baking potatoes, cabbage, and blueberries. These could be collected from farmers, washed, graded and packed, and delivered by one truck to different schools. Ms. Calhoun was aware of Madison Farms selling local beef to schools, and felt this could be a good example of a longer-term opportunity.

Liability insurance has been a bottleneck for purchasing locally, since all food suppliers must carry at least $1 million in GAP/HACCP coverage. This can be done with a group policy and an umbrella clause protecting all farmers participating in a business or cooperative.

The school district has taken some steps forward in promoting local foods, and has worked with ASAP’s Farm-to-School initiative in recent years. Apples from Jim Saylor’s farm and potatoes from Sam Silver are two examples of local farm products that have been purchased by the district in the past. School gardens have also played a role in helping school children to learn where their food comes from. A science enrichment grant was obtained for school gardens at Buladean and Gouge, led by Tamara Houchard, a 3rd-grade teacher at Gouge. Colby Calhoun,
principal at Gouge, has been supportive of the school gardens. Barbara Garlan has also been active with nutrition education at Deyton Elementary in Spruce Pine. The district also hosted cooking classes and farm field trips through the 4-H and Future Farmers of America (FFA). FFA, led by Hailey Hampton, sells vegetable starter plants each spring. Educating children about healthy eating can have an important benefit of reaching their parents and siblings at home.

Some food items in Mitchell County Schools (MCS) are bought in a collective buying arrangement with Madison County and Yancey County, but this does not apply to produce. The school system receives frozen blueberries, frozen strawberries, frozen peach cups and frozen 80/20 ground beef from the USDA in yearly allotments based on free and reduced lunch data. It would be duplicative to try to offer these products to the school system. These items take up a large portion of the school system’s freezer space. Any additional frozen items would be difficult for MCS to purchase because of their very limited cold storage options in Mitchell County. They do not have a centralized cold storage facility or a refrigerated delivery vehicle; therefore, any items they purchase need to be shipped cold. Each individual school also has limited storage space, so regular consolidated delivery is an important concern for them. Heather is interested in looking into grant opportunities for Mitchell County to construct centralized cold storage.

In order to purchase food from a supplier, that supplier must carry GAP/HACCP certifications as well as at least $1 million in liability insurance. In some cases, this can be achieved with a group policy that protects all farmers participating in a business or cooperative, however, individual farms may still be required to cover their own insurance. MCS ordering must take place at least a week in advance so that Heather can ensure the proper food is in place for their rotating menus. They receive weekly quotes from their producers through email or fax. If any one item is cost prohibitive, she simply nixes that item from the week’s menu and seeks an appropriate substitute if available. Bid prices are necessary for institutions, and she thinks that the average quote pricing system that we discussed sounded reasonable. This system takes an average of available commercial price quotes to determine the bid price for local produce. The individual schools tabulate their food needs on Fridays, relay that to Heather, and she places the consolidated order for the school system on either Friday or first thing Monday. Each school has their food delivered on the following Thursday. Therefore, any local produce order would also have to be consolidated and delivered in accordance with these guidelines.

MCS decided against ordering from Madison Farms in the past because the logistics and delivery costs for transportation exceeded their budget. This is a big concern for Heather, whose labor costs often exceed her food costs since they prepare so many of their meals from
This makes it hard to cut costs associated with her food budget without sacrificing quality or volume.

Heather is interested in participating in the formation of an advisory network committee to oversee the project, but cannot take on a large role because of her other responsibilities. She feels that the committee makeup should represent county extension, farmer representatives, consultants and members of the business community.

Potential suppliers to Mitchell County Schools should be prepared to meet size guidelines, have insurance and certifications, offer a reasonable price, and consolidate delivery. Following are purchase details for produce that could be supplied through local sources:

<table>
<thead>
<tr>
<th>Produce Item</th>
<th>Representative Price</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iceberg Lettuce</td>
<td>$28</td>
<td>24 count</td>
</tr>
<tr>
<td>Red Tomatoes</td>
<td>$25</td>
<td>25# round red 5X6</td>
</tr>
<tr>
<td>Carrots</td>
<td>$14</td>
<td>25# jumbo</td>
</tr>
<tr>
<td>Apples (red delicious/granny smith)</td>
<td>$30-40</td>
<td>113/125 count</td>
</tr>
<tr>
<td>Potatoes</td>
<td>$18</td>
<td>100 count Idaho russet</td>
</tr>
<tr>
<td>Cabbage</td>
<td>$10</td>
<td>50# green cabbage</td>
</tr>
</tbody>
</table>

Background on MCS

MCS serves breakfast and lunch to approximately 2,055 children in its eight schools, as illustrated in the attached map. This number has dropped from a high of 3,000 in recent years, due in part to unemployment and underemployment in the county. The eight schools in the Mitchell County school district include one high school, two middle schools, four elementary schools, and one primary school:

Mitchell High School, 416 Ledger School Road, Bakersville, NC 28705 (828) 766-3400
Greenlee Primary School (K-2), 2206 Carters Ridge Road, Spruce Pine, NC 28777 (828) 766-9562
Gouge Elementary School, 134 Laurel Street, Bakersville, NC 28705 (828) 766-2260
Deyton Elementary School, Spruce Pine, 308 Harris Street, Spruce Pine, NC 28777 (828) 766-2070
Tipton Hill School (elementary), 4256 NC 197, Green Mountain, NC 28740 (828) 766-3580
Harris Middle School, 121 Harris Street, Spruce Pine, NC 28777 (828) 766-3340
Buladean Elementary School, 12190 North Hwy. 226, Bakersville, NC 28705 (828) 766-2050

Bowman Middle School, Bakersville, 410 S. Mitchell Ave, Bakersville, NC 28705 (828) 766-3370

Mayland Early College High School is a joint program of Avery, Mitchell, and Yancey Counties, offering classes for advanced students on the campus of Mayland Community College in Spruce Pine.

School food services are provided by Reinhart (formerly I.J. – Institutional Jobbers), based in Knoxville, Tennessee, under a food contract bid out cooperatively between Madison, Yancey, and Mitchell County school districts. In previous years, the district purchased from JMJ, based at the Asheville Farmers’ Market. MCS depends on regular, direct delivery of products from its supplier, since it has no refrigerated delivery truck of its own, and no cold storage. Many of the breakfasts and lunches served in MCS cafeterias are prepared from scratch.

In addition to Reinhart deliveries, MCS receives deliveries of certain foods through the North Carolina Department of Agriculture, subsidized by the USDA, based on the number of free and reduced lunches from 2 years prior (which is 57% for MCS). These foods include canned apple sauces, peaches, and pears.

As an example of food purchasing requirements, Ms. Calhoun offered the following information. MCS purchases foods generally once every two weeks. Regular/small baking potatoes are purchased in 100 count cases. Carrot sticks are purchased weekly, and whole carrots are purchased weekly, grated and used in salads and cole slaw. Tomatoes are purchased 25 lbs. at a time. Iceberg lettuce is purchased weekly, and MCS is starting to mix it with romaine lettuce. Tater tots are regularly served (16 cents per serving). Cabbage is purchased in 25 or 50 lb bags. The size can vary, since it is sliced for cole slaw or served steamed.

Lunches are limited to $3.17 per lunch (including food and labor), which must include one meat, two vegetables, two fruits, milk, and bread. The goal for meats is to keep the cost at 50 cents or less per serving.
Child Nutrition Mission Statement: The primary objective of the Child Nutrition Program is to make available to every student a nutritious, well-prepared and attractive breakfast & lunch every day. A complete breakfast is offered every morning in all elementary, middle schools, and high school.

<table>
<thead>
<tr>
<th>School Meal Prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meal</td>
</tr>
<tr>
<td>Paid Breakfast – all grades</td>
</tr>
<tr>
<td>Reduced Breakfast – all grades</td>
</tr>
<tr>
<td>Adult Breakfast</td>
</tr>
<tr>
<td>Adult Lunch</td>
</tr>
<tr>
<td>Paid Lunch – K-5</td>
</tr>
<tr>
<td>Paid Lunch – 6-12</td>
</tr>
<tr>
<td>Reduced Lunch</td>
</tr>
</tbody>
</table>

According to the Mitchell County Schools website, student lunches typically consist of: 2 oz. meat or meat alternate, 2 (1/2 c.) servings vegetable &/or fruit, 1 serving of bread or bread alternate, and 1/2 pint milk. Under the "Offer vs. Serve" provision of the National School Lunch Program, students may decline two of the items offered, though the price of the meal will remain the same. Students taking only one or two of the meal components must pay for each at posted prices, including those students who qualify for free or reduced price meals.

Mitchell County Schools offers free and reduced-price meals to students whose family income meets criteria established by the federal government. Parents or adult household members are required to submit an application prior to the beginning of each school year, and can also submit an application at any time due to changes in the student’s circumstances. Child Nutrition Services assesses approximately 1% of the applications on file each year to verify household income or other eligibility information.
Blue Ridge Regional Hospital -- Doris Grindstaff

828-766-1862

Interviewed March 2011

Doris Grindstaff is the food buyer at Blue Ridge Regional Hospital in Spruce Pine. This hospital serves anywhere between 300 and 500 meals per week, but this can vary depending on the occupancy rates in the hospital. This is especially so since the hospital averages a low volume of 20 in-house patients at any time. She usually receives a produce truck delivery twice a week, on Tuesday and Friday. She is not aware of any required certifications or insurance requirements for her vendors, but with the preponderance of GAP certification requirements industry-wide, it is likely that these requirements exist, especially since hospitals deal with potentially vulnerable populations such as the immune-compromised, the elderly and children.

On a typical day, meals served in the cafeteria at Blue Ridge Regional Hospital include produce that could be locally grown, such as potatoes, onions, and cabbage. Other food offerings include pork chops, macaroni and cheese, corn bread, soup, pinto beans, cakes, pies, and breads. The cafeteria is used by hospital staff and visitors. Meals served in hospital rooms vary according to dietary requirements of patients.

A poster with the title “Make a Healthy Choice” from Merck pharmaceuticals hangs in the cafeteria, with information on how to read food nutrition labels required for packaged food products. A Pepsi machine offers sodas and water.

The hospital has tried in the past to purchase local foods for use in the hospital but have always run into problems. When they tried the farmers market for produce, they didn’t find much suitable to their needs. Also, they didn’t want to have to travel to get their produce. The hospital suggested moving the farmers market to the hospital parking lot to help with this but the idea was not well received by the farmers market.

Three years ago Doris tried purchasing local food: potatoes, tomatoes, strawberries, and cabbage. Doris remembers that the potatoes that came in were too dirty, it took too long for her tomatoes to be delivered, the strawberries were small and sour, and the cabbage heads were too large. In addition, sometimes she had to travel to pick up the produce. The produce manager at Ingles said the same thing about the potatoes and cabbage he received.

There are a couple of advantages to buying from their current vendor: they get a good deal under contract and with rebates from their vendor and any recall tracking for foodborne
illnesses is easily tracked with this company. Doris would like to be able to offer all organic, but that is usually not possible under her budget constraints. The dining room does offer a salad bar 4 times per week. The following table illustrates the produce items and their buying frequency for Blue Ridge Regional Hospital:

<table>
<thead>
<tr>
<th>Produce Item</th>
<th>Buying Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cantaloupes</td>
<td>8-12 each per week</td>
</tr>
<tr>
<td>Strawberries (in season)</td>
<td>1 case per week</td>
</tr>
<tr>
<td>Sweet potatoes</td>
<td>1 case per week</td>
</tr>
<tr>
<td>Baking potatoes</td>
<td>1 case per week</td>
</tr>
<tr>
<td>Red potatoes</td>
<td>50# every 2-3 weeks</td>
</tr>
<tr>
<td>Grape tomatoes</td>
<td>1 case per week</td>
</tr>
<tr>
<td>Cherry tomatoes</td>
<td>1 case per week</td>
</tr>
<tr>
<td>Red Tomatoes (4x5)</td>
<td>1-2 cases per week</td>
</tr>
<tr>
<td>Leaf lettuce</td>
<td>1 case per week</td>
</tr>
<tr>
<td>Mesclun Mix</td>
<td>1 case per week</td>
</tr>
<tr>
<td>Cucumbers</td>
<td>10-20# per week</td>
</tr>
<tr>
<td>Red onion</td>
<td>5# per week</td>
</tr>
<tr>
<td>Yellow squash*</td>
<td>20# per month</td>
</tr>
</tbody>
</table>

*Doris indicated that this was the smallest delivery size available through her vendor. It is too large for her purposes, but she tries hard to use it all in different ways. She would prefer smaller delivery of squash.

Interview with Retail Food Buyers

*Ingles*

Bob Ingle opened the first Ingles supermarket in Asheville, North Carolina in 1963. Ingles self-distributes 64% of the merchandise it sells from its distribution center on the outskirts of Asheville, where its headquarters are also located. All Ingles stores are located within a 250-mile radius of the distribution center, which typically stores in excess of 40,000 pallets of product. The produce manager at the Spruce Pine Ingles indicated that he has no real independent buying power at the store level. He suggested that we contact Ricky Carr (800-635-5066 x365) who is a regional or district buyer. He indicated that while organic is the trend that is mostly being followed at Ingles right now, he has had customers who ask about local food products and who are willing to pay for them. He had tried to stock local potatoes and cabbage in the past, but ran into quality control issues. The potatoes that came in were insufficiently cleaned and sorted for the store’s liking. The cabbage heads were simply too large. These issues must be remedied if one is to sell through Ingles.
In February 2011, researchers met with Jim Ray, Ingles Vice President of Produce. Ray was visiting stores in Mitchell and Yancey Counties and was willing to discuss possibilities of sourcing produce directly from farmers in each county where an Ingles store operates. Ingles has made significant increases in purchase of locally-grown fruits and vegetables in recent years. Researchers believe this is primarily due to competitive pressures from high-end retailers like Greenlife Grocery (now Whole Foods Markets) and Earthfare, a regional natural foods chain headquartered in Asheville. Additionally, traditional low-cost retailers like Wal-Mart are now actively sourcing locally-grown produce. As a mid-range retailer, Ingles has little choice but to increase local food purchases in response to these competitive pressures.

Jim Ray indicated that Ingles was receptive to buying local produce from well-established growers in the region, allowing them to conduct direct store delivery to stores located in or near their home counties. Ingles stores in the northwestern counties (Yancey, Mitchell, McDowell, Avery) will begin carrying leafy greens grown in Yancey and Mitchell counties in 2011. Ray was also receptive to the idea of buying produce from a local-foods aggregation and marketing organization. Ingles local produce managers and merchandise executives were very receptive to the idea of buying from one legal entity charged with quality control oversight, invoicing, and store delivery. They expressed strong reservations about their ability to buy large quantities of produce from multiple farms due to logistics, billing, and quality control issues.

One well-known farmer is coordinating production and distribution to the Ingles stores in the region. This grower is now working with other growers in both Mitchell and Yancey counties to facilitate increased production under strict quality control standards. This grower reports that after his first year of vending to Ingles, he would be willing to begin discussions on supplies of a larger variety of produce that could be grown in the region by other growers with specialty crop experience. Items under consideration may include heirloom tomatoes, sweet corn, and Kennebeck potatoes.

Ray is receptive to future discussions around sourcing locally. He stressed that suppliers must be GAP certified and must have $1,000,000 in product liability insurance to sell to their stores.

Walmart

Walmart was founded in 1962, with the opening of the first Walmart discount store in Rogers, Arkansas. Walmart serves customers and members more than 200 million times per week at more than 8,986 retail units under 55 different banners in 15 countries. With fiscal year 2010 sales of $405 billion, Walmart employs 2.1 million associates worldwide.
Researchers visited the Wal-Mart in Spruce Pine to assess the viability of selling to that store through a direct-purchase arrangement. While Wal-Mart’s produce manager has little local purchasing power, there is a sign that hangs over the produce section in Wal-Mart that reads “We Support Local Farmers”. According to the produce manager, his local produce is purchased from JMJ and local apples from Jim Saylor in Spruce Pine. In order to be able to sell through Wal-Mart, produce must travel through their warehouse, but the produce manager did not know how this process took place. The produce manager said he did not have a contact number for the warehouse.

Researchers did identify three NC products in the produce section: honey from Lake Lure, molasses from Lake Lure, and individually wrapped sweet potatoes from Snow Hill, NC.

_Mountain Foods_

Mountain Foods, a local foods distributor housed at the WNC Farmers Market, specializes in small order delivery to restaurants in the greater Asheville area. The company encourages farmers to grow what they know how to grow. As a policy, Danielle, the produce manager, does not tell farmers what they have a need for because she fears encouraging them to grow something that may not have a market in the future. Growing what they already are comfortable with growing will result in a better product that Mountain Foods will be more likely to be able to move. They do not currently require either GAP or HACCP certifications but they are aware of the movement towards these requirements. Mostly what they would like to see from growers is an understanding of the standards for growing and selling the particular item or items they want to sell.

Danielle encourages farmers who wish to sell through Mountain Foods to come to the warehouse to see examples of similar products as they flow through the warehouse. So, if someone wants to grow cabbage, they should come take a look at the varieties, sizes, cleanliness, packages and product ID stickers of cabbage already being sold. She feels that this visual and hands on approach to orienting farmers to their standards is the most effective for maintaining a high standard of delivery. This means presenting a clean and professional product, but should especially consider the packaging method: packaging should not compromise the integrity of the product. Farmers are encouraged to ship their products to Mountain Foods using similar parameters to the big box distributors (such as waxed boxes for cabbage), which helps products during shipment and travel. Considering the end user of their products is also helpful: chefs will want products that are easily stored in their limited cold
storage. Similarly, it is easier for Mountain Foods to ship food items that are conveniently packaged in boxes. These boxes should have tops on them and be in good shape. Mountain Foods will not buy products that are in topless boxes, heavily damaged or water-soaked boxes, or that contain physical hazards such as nails protruding from the boxes. Again, this goes back to adhering to standards for delivery.

Another efficient and attractive tool that farmers can use is to identify their products with product labels or stickers, much like one might find in a commercial produce section. Labels that contain the farm name, the product identification, harvest/packaging/delivery dates, and any applicable certifications are encouraged. This helps not only the dock workers who are identifying and separating produce for distribution, but also the end users such as chefs in restaurants who can use those identifications as premiums. For example, vegetables with organic certification can be identified as such on menus, often commanding higher prices.

_Greenlife/Whole Foods – Rob Everett_

In 2010, Greenlife Grocery in Asheville was bought by Whole Foods Markets. Since the takeover, Greenlife produce manager Rob Everett reports that some policies and organizational structures have changed. Greenlife is known in the Asheville region as a grocery store that specializes in organic produce. Customers often ask about how the vegetables were grown and what, if any, pesticides or chemicals were used in their production. And, says Everett, people do not want a wishy-washy answer for that – they want to know what goes into their food more now than before. They almost only dabble in non-organics since there are logistical and practical difficulties in keeping the two types separated in transport, storage and on the selling floor. Selling of organic and non-organic produce as a certified organic retailer requires tracking documents and procedures in place to ensure the separation of each type of product.

Regional Whole Foods managers might look differently at the idea of selling local non-organics, and Everett indicated that in the near future a wider diversity of non-organic produce may be available in the Greenlife produce aisle. Locally grown foods do not cost as much to transport as national growers based in California. Local but non-organic produce is generally cheaper than either local organic or nationally-distributed organic, which can result in higher profit margins. Sourcing locally also reduces the carbon footprint of the food itself, something that Everett is interested in tracking because people are becoming more aware of this issue. This could lead to an increase in management willingness to embrace the project ideas. Overall, he sees a greater opportunity for local non organics now that Greenlife is part of Whole Foods. He also indicated
that there has been somewhat of a clientele shift at Greenlife since the buyout, with more openness to food that is local rather than organic. He estimates that, given Asheville’s passion for local and organic, 70% of his customers want strictly organic and that 30% are flexible with respect to local foods. This could be shifting towards a 60/40 ratio now that Whole Foods is in charge.

Everett is reluctant to identify specific produce items for sourcing from Mitchell County growers. Depending on weather and harvest times, there can be a glut in the market one month for an item and a shortage the next month. However, with the growing cycle a little later in Mitchell, there may be an opportunity to complement or supplement the availability of other produce supplies. Items like potatoes, onions and squash that can be stored after harvest can be staggered to extend the delivery season. Sometimes there is an exciting immediacy to what is fresh and in season and the store can capitalize on volume sales. This is especially true of sweet corn. In contrast, there are some produce items, heirloom tomatoes in particular, that have a smaller window of opportunity for ripeness.

Everett stressed that new producers that want to get into the shelves at Greenlife are going to have to get in line behind the already established growers that they already do business with. They are encouraged to grow what they know how to grow, and not change to suit a potential market.

“Wet” produce items have to be handled differently because of the increased potential for comingling of organic and conventional produce. Wet items include such vegetables as greens that retain a lot of moisture and that may have to be left to drain on racks. It is water that is a common culprit in the comingling of organics and conventional. Greenlife also requires separate and special signage to identify this difference. In terms of required certifications, Whole Foods is increasingly interested in GAP and HACCP and wants to know that their farmers understand common practices to avoid the spread of food-borne illnesses. Safety is very important to management. Everett believes that Whole Foods would be willing to entertain the idea of providing some certification education for their producers. He recommends that should be discussed with regional team leaders based in Atlanta.

Everett expressed a preference for dealing with one legal entity who retains a minimum of $2,000,000 in liability coverage and who delivers in new clean boxes. All of the farmers should sign up under the legal umbrella organization. Everett recommended that Mitchell County consider a partnership with Madison Farms. This would help limit the number of vendors that Everett would have to deal with regularly, and in addition Madison Farms is already an approved vendor in the Whole Foods Southeastern Region.
Since phone calls are time consuming, Everett prefers communicating with vendors through email. Vendors should gather and consolidate their weekly price availability on Mondays. They need to be able to generate an internal order sheet to match the purchase order because those two documents are compared at the loading dock upon delivery. Purchase orders should be sent via email.

Produce needs to be delivered at proper temperatures as well. Greenlife uses a laser temperature gun to ensure that the temperature inside a pallet of vegetables is consistent with the outside. Some deliveries are made in open topped boxes that are filled with ice to keep them cool, and the interior temperature needs to be consistent with the outside temperature. Leading Green Distributors provides transportation services for delivery of produce in a refrigerated truck. This costs money, but when one has to take care of their own distribution, rising gas prices and repairs take a toll on the budget as well. So does the need to hire a responsible driver for the delivery truck. Being dependent on a third party, then, has both its advantaged and disadvantages.

Everett suggested that, as production volumes increase, a consolidated organization consider marketing to Whole Foods’ regional warehouse. Whole Foods may consider warehouse pickup of local produce at stores along their delivery routes to execute a “backhaul” of fresh produce to the warehouse and further reduce the carbon footprint of the produce. Selling at that volume would require lower sales prices to account for the chain’s own distribution costs. Everett thinks that local non organics may sell better in stores that are further away from the strong local and organic food scene in Asheville.

Farmer Interviews -- Doug Harrell of Harrell Hill Farms

“It’s amazing what the world doesn’t know about agriculture. People think that cows grow at Ingles.”

Doug Harrell expressed this idea in the beginning of our interview: people do not understand what can happen ecologically when our produce system is so intricately tied to the fuel industry. He feels that we are not prepared for this close of a relationship in today’s agricultural world. Since grocery stores only have a three to five day supply of food, any major disruption in oil supplies and transportation could more drastically cripple an industrial food system than a local one. He sees this as a huge opportunity to grow smaller-scale production that would help offset this potential. However, most growers are currently unable to compete on the economy of scale of the large growers shipping nation-wide. Since fewer and fewer people are “putting
up” for the winter, reviving these preservation methods could also help to offset some reliance on transportation in the food system. It could also provide increased opportunities for job growth or expansion on local farms.

Harrell described Mitchell County as a “parochial” type of community. People know their neighbors, know the local farmers in the community, and have concern for one another. If there is a project that will put locals to work, residents will line up behind that plan because people need work. While it has been difficult to get local people to do manual labor on the farm in the past, this may be changing because of immigrant housing regulations. These regulations attempt to limit things such as the number of beds per room or if bedrooms must be crossed to get to a toilet. As these housing regulations make it harder for immigrant labor to afford to work here, the food landscape may change. Smaller farms could certainly use the unemployed local labor force to help feed the community if this were the case.

Harrell believes that the local Christmas tree marketing and infrastructure could use some streamlining, especially since they sold a few million less trees this season. Farmers are fiercely independent people, but even they are realizing that everyone cannot be out for himself anymore. Collective marketing is important because there is more power in representing all farmers than any one in particular. Since markets have been down, farmers are actively looking for ways to increase their income. One way this is possible is through increased availability of local slaughter options. Currently, beef producers have to travel long distances and go out of state to have their meat processed. Local slaughter would help local meat be competitive both wholesale and in local sales outlets, thereby increasing farm income.

Doug Harrell’s comments are representative of many opinions about sales of locally grown food in the county. While purchasing power is limited, there is a sense of community and mutual support among residents who wish to support each other economically. This is a positive indicator for any county efforts to promote sales of local foods, especially direct marketing to consumers through roadside stands and subscription plans similar to community supported agriculture. Any project that directly markets local farm products would be considered a positive resource for the community, especially if it resulted in farmers growing and selling more produce, meats, and other agricultural products. It would benefit from ensuring its marketing efforts reached consumers in stores as well as in institutions in Mitchell County such as schools and hospitals. This will require preparedness such as GAP and HACCP certifications and appropriate levels of liability insurance (usually a minimum of $1,000,000).
Survey of Farmers

Survey process, results, and findings

A farmer survey form was developed in conjunction with the Yancey County feasibility assessment, and mailed out to 250 farmers in Mitchell County. The purpose of the survey was to determine the level of interest among local farmers in participating in some form of local distribution network to supply institutions in the county with local farm products, and to determine what those products could be. The survey also served to educate farmers about the Feasibility Study and Cooperative Extension’s interest in supporting the development of new markets and distribution strategies for locally-grown foods.

Approximately 44 of the 250 surveys have been returned (a 17.6% return rate). Of those, one reported that they are no longer farming, and 43 respondents are currently farming. Positive responses were received from the following farmers:


The responses and findings are summarized in Appendix I.

Survey Conclusion

After reviewing the submitted survey responses, the researchers determined that there is sufficient producer demand in Mitchell County to warrant further investigation into the development of an agricultural marketing, consolidation and distribution center, at least in conjunction with a neighboring county such as Yancey. We have identified through this survey those respondents who are interested in providing products to such a venture and who may be interested in participating as founding members of a distribution organization. In order to accurately assess the volumes of products these producers can make available to the project, the next step will be to conduct one-on-one producer meetings and interviews. The researchers recommend that full feasibility analysis proceed with deliverables as originally proposed to Mitchell County project leaders.
Feasibility of Distribution Business

The identified needs for diversifying and expanding the county’s agricultural economy, increasing the viability of individual farms, and meeting institutional food service requirements, must be addressed with strategies that are efficient with time, resources, and are financially sound.

The initial assessment has not identified sufficient demand for a stand-alone facility or project to serve as an intermediary to sell to institutions. There is some opportunity with the school system for select produce, however seasonality issues and a low producer base indicate only a few farmers would be in a position to supply during school sessions.

Mitchell growers and Extension personnel should forge a close collaboration with efforts to distribute along with Yancey growers and to a lesser extent Madison growers. Our recommendation to Yancey is that they establish a Yancey-Mitchell aggregation center and focus on building a local CSA as well as distribution to local Ingles, Asheville Whole Foods, and supplies to the school systems on a limited basis. Mitchell may need to develop its own mobile infrastructure (mobile wash line, cooler trucks) to participate fully in this center.

At that time, a business plan for this Yancey-Mitchell center will be developed to identify specific markets, products, systems, infrastructure, and budget projections. An initial steering committee should be formed, and should include farmers who responded positively to the survey, those who are on the Agricultural Advisory Committee, and Cooperative Extension. Partners for start-up and longer term funding and technical support should be identified. Farmer members should be identified.

This company could be modeled after a number of similar operations (Madison Farms, Pilot Mountain Pride), with an ownership structure similar to a cooperative or LLC. It could include a central location in or near Bakersville or Burnsville, which would contain appropriate infrastructure and equipment for processing and distribution. One alternative to a centralized facility would be a mobile wash/grade line and chopping station to allow for on-farm processing and direct delivery to institutional and other buyers without the need for cold storage.

Once these relationships are more fully developed, Mitchell can reassess production capacity and demand, and the feasibility of forming its own distribution company by and for farmers in Mitchell County to serve both institutional and retail food buyers.
Recommendations (based on farmer surveys and school/hospital interviews)

In conjunction with Yancey County:

1. Identify short-term (1 – 3 year) opportunities for serving schools, hospitals, and retail buyers in the region with Mitchell County farm products, and develop a business plan for meeting those opportunities.

2. Determine the type of partnership organization (multi-county, public-private, cooperative, LLC, other) that would be suitable for collecting, processing, storing, marketing, and distributing Mitchell-grown farm products.

3. Select specific fruits or vegetables that grow well in Mitchell County, are relatively easy to harvest and process, store well, are easy to transport, and are used regularly by MCS and BRRH food service staff and retail buyers, such as potatoes, cabbage, and apples as identified in this report. Promote production of these varieties among Mitchell County farmers.

4. Identify specific farm types and farms that may participate (small, diversified, mid-size) in a distribution entity, including those who responded positively to the farmer survey completed for this report.

5. Outline processing and distribution options (central facility, mobile facility, cold storage).

6. Develop food preparation and value-added processing options for farmers and food service staff (canning, sauces, sauerkrauts).

7. Identify feasibility of long-term (3 – 10 year) opportunities for serving schools, hospitals and retail buyers with Mitchell County farm products.
Conclusions

The future of farming in Mitchell County, as in other economically distressed communities, depends greatly on the ability of farmers to remain profitable in a changing marketplace. Christmas trees, nursery stock, and beef cattle have been increasingly important sources of income for Mitchell County farmers in the past half century, particularly following the tobacco buyout. Yet each of these products has built-in risk, as dependent as they are on distant markets, changing demand and competition from across the country.

Diversification of farm products and reaching new local or regional markets for local foods are two of the most fundamental strategies for improving farm profitability in Mitchell County. With growing interest in the nutritional, economic, and environmental benefits of local foods, local institutions such as schools and hospitals are two important potential markets for Mitchell-grown foods that require a focused, cooperative strategy between farmers, food buyers, and Cooperative Extension. As outlined in these conclusions, both existing and beginning farmers in Mitchell County have a window of opportunity to participate in a diversified regional food economy for Western North Carolina.

Conclusions and Key Findings for Market Entry

Mitchell County faces certain competitive disadvantages to selling produce under a consolidated marketing program that is centered on Mitchell County growers. Demand for produce from schools and institutions located in the county is severely limited. The growing season is short and does not match well with the school system calendar. For sales into the larger and wealthier Asheville MSA, Mitchell growers face significant competition from farms that are closer to distribution centers and that have a longer record of selling and meeting quality control standards. Previous negative experiences with quality standards have made some retail and institutional food buyers wary of committing to local produce purchases. A lack of certified organic producers cuts off sales opportunities in that lucrative and growing market.

Nevertheless, some competitive advantages may exist for local produce growers. The higher elevation in Mitchell means cooler summer temperatures, and may allow for late-season harvest of cold crops such as kale, spinach, and other leafy greens, when the temperatures are too hot for harvest in other areas. The small grower base may allow for closer coordination of production schedules among a small number of farms that can work on a level of trust and mutual support. Finally, the close-knit nature of Mitchell County society may mean more local citizens, despite lower per capita income, will support their friends and neighbors through
purchases of local foods. Direct marketing of produce to consumers within the county may yield better results than attempting to sell volume produce to Mitchell County Schools or Blue Ridge Regional Hospital. Direct marketing activities may also be better able to handle other farm production, including local meats.

Some important considerations for increasing sales of local produce are discussed below:

Regional Collaboration

With limited production capacity, Mitchell growers may be better served through a collaborative marketing approach with growers in neighboring counties, especially Yancey and Madison. Madison County has had a consolidated marketing organization for more than five years. Madison Family Farms consolidates produce for distribution at the Madison County Agricultural Center in Marshall. This facility has a wash line, loading docks, coolers, freezers, and a small US Food and Drug Administration (FDA) -approved room for processing value-added products such as jams and jellies.

Yancey County is currently conducting a feasibility study to determine the viability of establishing a consolidated sales and marketing organization that can sell through a CSA and make deliveries to regional restaurants and supermarkets. While Yancey has a larger and more diverse base of vegetable farms, production volumes are still fairly low among these relatively small mountain farms. Incorporating Mitchell County in a multi-jurisdictional program will help both counties achieve economies of scale to meet the buying needs of more retailers and institutions. Training and educational activities for GAP and quality control can be consolidated and duplication of effort can be avoided. Efficient truck routes and schedules for delivering Mitchell farm products to this type of facility would be essential, as they would for delivering farm products from the facility to schools, the hospital, stores, and restaurants in the region.

Good Agricultural Practices (GAP)

GAP certification should be considered a de facto prerequisite for market access. Good Agricultural Practices (GAPs) are the basic environmental and operational conditions necessary for the production of safe, wholesome fruits and vegetables. The purpose of GAPs is to give logical guidance in implementing best management practices that will help to reduce the risks of microbial contamination of fruits and vegetables. Examples of GAPs include worker hygiene
and health, manure use and water quality throughout the production and harvesting process. While the United States has one of the safest food supplies in the world, recent media attention on food-borne illness outbreaks underscores the importance of good agricultural practices.

Many wholesale and institutional purchasers of farm products increasingly require that these certifications be in place to ensure delivery of a safe and wholesome food product to the end-user. As a result, many food producers and purchasers are voluntarily pursuing these certifications to remain competitive in the marketplace, creating a quasi-regulatory regime of its own. For this reason, the project should consider having their producers work under these certifications.

Growers, packers and shippers are urged to take a proactive role in minimizing food safety hazards potentially associated with fresh produce. Being aware of, and addressing, the common risk factors outlined in GAPs will result in a more effective, cohesive response to emerging concerns about the microbial safety of fresh fruits and vegetables. Furthermore, operators should encourage the adoption of safe practices by their partners along the farm-to-family food chain. This includes distributors, exporters, importers, retailers, produce transporters, food service operators and consumers.

Mitchell County should consider working collaboratively with the NC Cooperative Extension Service and Mayland Community College to provide GAP training to produce growers, and such participation should be a requirement for consolidated sales and marketing.

### Quality Control

A recurring comment during interviews with food buyers was that quality standards were not met in previous experiences buying from local farmers, including size consistency. In order to remedy this, any community effort to increase sales to institutions and supermarkets must implement training and educational efforts to assure quality of produce sold. This may be done at the farm level, with extension agents increasing their focus on why quality control is a prerequisite for local marketing success, or it could be implemented at a centralized location, either in the county or regionally, that has the necessary infrastructure and staff oversight to ensure proper grading and packaging.
The proposed formation of a local food distribution facility and system will provide nutritional benefits for residents of Mitchell County and neighboring communities by offering schools and the hospital the opportunity to source farm-fresh products that can be used fresh or processed and stored for year-round consumption as part of a healthy, preventative diet. The feasibility of this type of entity will require a regional partnership with Yancey County and perhaps other counties, and must focus on retail sales to groceries and restaurants in addition to institutional sales. The proposed company will benefit the community and economy by reconnecting farms with schools and hospitals and developing reliable markets for local farm products and increasing farm income and potential jobs. These benefits to the local economy and community health can be demonstrated with programs such as ASAP’s Appalachian Grown labeling, or a similar locally-grown label, and tracking increased sales to both institutional and retail buyers.

Mitchell County farmers have a tradition of working together to provide fresh, local produce to customers in the area, including formation of an apple cooperative located in Bakersville in the 1960’s which marketed apples to regional grocery chains. The current success of the farmer-led Bakersville and Spruce Pine farmers’ markets is an example of this cooperation, and of the diversification and wide variety of vegetables, fruits, meat and dairy, and value-added products possible among local farms.

Farm to School and Farm to Hospital programs in the county, as initiated by Cooperative Extension and ASAP, demonstrate the potential for Mitchell County farms to work collaboratively to reach new markets with local farm products. Strategic, collaborative efforts among Cooperative Extension, food buyers, food service companies, farmers, and customers can each play an ongoing role in building the economic and community relationships necessary for Farm to School and Farm to Hospital programs to succeed in Mitchell County and neighboring communities.
Sources

Appalachian Sustainable Agriculture Project website, www.asapconnections.org. Growing Minds/Farm to School and Farm to Hospital program descriptions.


Community Food Security Coalition website, http://www.foodsecurity.org


Farm to Hospital Case Study: Haywood Regional Medical Center. Appalachian Sustainable Agriculture Project, www.asapconnections.org

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Grindstaff, Doris, Nutritionist, Blue Ridge Regional Hospital. Interview, March 2011.


Local Food as Holistic Health: Park Ridge Hospital, case study. Appalachian Sustainable Agriculture Project, www.asapconnections.org


National Farm to School Network website, www.farmtoschool.org

North Carolina Farm to School website, www.ncfarmtoschool.com


Ray, Jim. Vice President of Produce, Ingles. Interview, February 2011.

10 Easy Ways to Incorporate Farm to Hospital into Health and Wellness Programming, Appalachian Sustainable Agriculture Project, www.asapconnections.org

Tompkins, Patricia, farmer, Fork Mountain Farm, Bakersville, North Carolina. Interview, February 2011.
Appendix I -- Mitchell County Farmer Survey Response Analysis

The responses summarized here from derived from a survey sent to 250 farmers in Mitchell County. A total of 43 responses were received from active farmers. Since some respondents indicated growing or raising multiple items within a given category, percentage totals may exceed 100% in some cases.

• Question 1 – Do you have an interest in supplying your locally produced food to a consolidated sales and distribution organization in Mitchell County?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Maybe/Did Not Answer (DNA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>23</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>(54%)</td>
<td>(23%)</td>
<td>(23%)</td>
<td></td>
</tr>
</tbody>
</table>

Overt interest among respondents for supplying locally produced food to a consolidated sales and distribution organization is 23 out of 43 or 54%. The percentage of respondents with no interest in the project is comparatively small at 23% (10 out of 43), while 10 respondents (23%) did not answer the question. Some of these reported that they only raised beef cattle or grew Christmas trees. We infer that at least some farmers who did not answer may have some relevant interest in this project.

• Question 2 – Would you assist with the formation of a local distribution system?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Maybe/Did Not Answer (DNA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>(56%)</td>
<td>(14%)</td>
<td>(30%)</td>
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</table>

A majority of respondents – 24 out of 43 (56%) – responded that they would assist with the formation of a local distribution system. These responses offer the first insight into the potential formation of a distribution organization consisting of farmers as founding members. The percentage of respondents with no interest in participating in this system is much less, 14% (6 out of 43), while 13 respondents (30%) did not answer the question. Some farmers who did not answer may have some relevant interest in participating in a distribution once they learn more about the purpose and function.
• Question 3 – Which of the following seasonal fresh fruits do/will you have available?

<table>
<thead>
<tr>
<th></th>
<th>Apples</th>
<th>Strawberries</th>
<th>Blueberries</th>
<th>Grapes</th>
<th>Peaches</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(19%)</td>
<td>(12%)</td>
<td>(14%)</td>
<td>(5%)</td>
<td>(5%)</td>
</tr>
<tr>
<td>Blackberries</td>
<td>8</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(19%)</td>
<td>(9%)</td>
<td>(7%)</td>
<td>(14%)</td>
<td>(9%)</td>
</tr>
</tbody>
</table>

20 out of the 43 total positive respondents, or 47%, responded that they had one or another seasonal fresh fruits available. Those responding that they grow other fruits listed: wineberries, cherries, and pumpkins.

*Apples and berries are by far the most commonly listed fruits grown by respondents, and could therefore represent important opportunities for distribution to schools and hospitals. Apples and blackberries each accounted for 19% of responses, while raspberries and blueberries each accounted for 14% of responses. 12% said they grow strawberries, and cantaloupes and watermelons each accounted for 9% of responses. Pears, peaches and grapes accounted for 7%, 5% and 5% of responses.*

*Note:* many respondents indicated that they grow more than one product on their farms, and some listed that they will grow certain fruits in the future.

• Question 4 – Which of the following seasonal fresh vegetables do/will you have available?

<table>
<thead>
<tr>
<th>Summer Squash</th>
<th>Tomatoes (heirloom)</th>
<th>Sweet Corn</th>
<th>Cabbage</th>
<th>Red Tomatoes</th>
<th>Hot Peppers</th>
<th>Potatoes</th>
<th>Snap Peas</th>
<th>Zucchini</th>
<th>Cucumbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>13</td>
<td>3</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>(19%)</td>
<td>(9%)</td>
<td>(16%)</td>
<td>(9%)</td>
<td>(12%)</td>
<td>(14%)</td>
<td>(30%)</td>
<td>(7%)</td>
<td>(16%)</td>
<td>(12%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Green Beans</th>
<th>Romaine</th>
<th>Bell Pepper</th>
<th>Okra</th>
<th>Broccoli</th>
<th>Collards</th>
<th>Shiitake</th>
<th>Carrots</th>
<th>Greasy Beans</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>(23%)</td>
<td>(7%)</td>
<td>(16%)</td>
<td>(9%)</td>
<td>(12%)</td>
<td>(7%)</td>
<td>(12%)</td>
<td>(7%)</td>
<td>(16%)</td>
</tr>
</tbody>
</table>
15 out of the 43 total positive respondents, or 35%, responded that they had one or another seasonal fresh vegetables available. This less than the total number of respondents growing fresh fruits in Mitchell County.

**Among these 43 respondents, the greatest number (13) reported growing potatoes, a full 30% of those who filled out the survey. This was followed in popularity by green beans at 23%; 19% indicated growing summer squash; while sweet corn, zucchini, bell peppers, and greasy beans are each listed by 16% of respondents; hot peppers are grown by 14%; 12% grow cucumbers, red tomatoes, broccoli, and shitake mushrooms; 9% grow heirloom tomatoes, cabbage, or okra; while 7% grow snap peas, romaine lettuce, collard greens, or carrots.**

Respondents were given the option of writing in “Other fresh vegetables.” Responses include the following: sweet potatoes, greens, mustard greens, dry beans, bush beans, shelling beans, winter squash, pumpkins, cauliflower, onions, spring onions, turnips, beets, spinach, snow peas, swiss chard, kale, and oyster mushrooms.

Among positive respondents, several were growing a wide variety of vegetables. Of those who only grew one or two types, potatoes and beans were most common, which may indicate that these vegetables have been traditionally grown in the county.

- **Question 5 – Which of the following other fresh foods do/will you have available?**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Eggs</td>
<td>Honey</td>
<td>Herbs</td>
<td>Goat Cheese</td>
<td>Cow Cheese</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(12%)</td>
<td>(5%)</td>
<td>(2%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8 out of the 43 total positive respondents, or 19%, responded that they had one or another other fresh food available.

**Among these 5 respondents, 12% indicated producing eggs, while 2 produce honey (5%) and one produces herbs for sale (2%). No respondents listed that they produce either goat or cow cheese.**

**Note:** many respondents indicated that they grow more than one product on their farms.
• **Question 6 – Which of the following meats do/will you have available?**

<table>
<thead>
<tr>
<th>Meat Type</th>
<th>Beef</th>
<th>Chicken</th>
<th>Fresh Hams</th>
<th>Pork</th>
<th>Turkey</th>
<th>Country Hams</th>
<th>Pork Sausage</th>
<th>Lamb</th>
<th>Italian Sausage</th>
<th>Goat</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number (%)</strong></td>
<td>2 (2%)</td>
<td>0 (%)</td>
<td>0 (%)</td>
<td>0 (%)</td>
<td>0 (%)</td>
<td>0 (%)</td>
<td>0 (%)</td>
<td>2 (2%)</td>
<td>0 (%)</td>
<td>0 (%)</td>
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</table>

5 out of 43 total positive respondents, or 12%, responded that they had one or another meat available, however, it is unclear from the responses whether these are sold at livestock markets or processed and sold locally. Two listed that they have beef available, and an additional 7 respondents noted elsewhere on the form that they raise beef cattle for sale to other markets, for a total of 9 cattle producers or 21% of respondents. Two respondents listed that they have lamb available, and one respondent raises meat rabbits for local sale.

• **Question 7 – Which of the following value-added/processed foods do/will you have available?**

<table>
<thead>
<tr>
<th>Food Type</th>
<th>Canned Vegetables</th>
<th>Salsa/Hot Sauce</th>
<th>Dried Peppers</th>
<th>Chocolates</th>
<th>Jams / Jellies</th>
<th>BBQ Sauce</th>
<th>Baked Goods</th>
<th>Snack Mixes</th>
<th>Apple Butter</th>
<th>Pesto</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number (%)</strong></td>
<td>0 (0%)</td>
<td>1 (2%)</td>
<td>0 (0%)</td>
<td>1 (2%)</td>
<td>3 (7%)</td>
<td>0 (0%)</td>
<td>3 (7%)</td>
<td>0 (0%)</td>
<td>1 (2%)</td>
<td>2 (5%)</td>
</tr>
</tbody>
</table>

11 out of 41 total positive respondents, or 26%, responded that they had one or another value-added or processed food available. Additional value added/processed foods listed included: cider (2), and lye soap.

*Among these 3 respondents, 7% indicated that they make jams or jellies; 5% make pesto; 2% make apple butter; 2% make salsa/hot sauce; 2% make chocolates; and 7% make baked goods.*

Respondents were given the option of writing in “Other items,” though none responded

**Note:** many respondents indicated that they produce more than one product on their farms.
• **Question 8 – What other products would you be interested in growing for this project?**

15 out of 43 total positive respondents, or 35%, responded with other interests. Responses to this open-ended question were naturally varied and are (in no particular order) as follows: dried mushrooms; squash; cut flowers; peppers; vegetable starter plants; blueberry plants; strawberry plants; rhubarb; basil; greens; seed sprouts; pasta; boxwoods.

• **Question 9 – How many acres do you have in commercial production?**

29 out of 43 total positive respondents, or 67%, indicated the number of acres in commercial production. Answers to this question varied from zero acres in production to several hundred. The largest acreage tracts are generally for beef cattle, although some of the larger tracts are in orchards or hay. Many of the smaller total acreages are fruit and vegetable growers. The total number of acres in current commercial production totals 660 acres. The average acreage in commercial production is 21 acres. These numbers include some larger pasture acreage producing cattle for sale to livestock markets. The actual acreage of production for local/regional consumption is therefore likely to be lower. Many of these producers with acres in commercial production also have the opportunity or desire to expand into arable land that could be placed into production if suitable markets were available, as will be seen in the responses to the next question. It should be noted that 9 of the respondents (21%) listed Christmas tree production for some or all of their acreage.
Following are the acreages indicated by some respondents:

<table>
<thead>
<tr>
<th>1</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>20 owned/125 leased</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>2.4</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.5</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>45</td>
<td>125</td>
</tr>
<tr>
<td>6.5</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>130</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

- **Question 10 – How many acres of arable land could you put into production if you had suitable markets?**

20 out of 43 total positive respondents, or 47%, indicated they had arable land that could go into production given suitable markets. Answers to this question varied from zero to 40 acres. Some respondents who indicated they had acreage in commercial production did not indicate additional arable land for potential production, while some who did not indicate any acreage under current commercial production indicated they would be willing to put acreage into production given suitable markets. Still others indicated they were operating at maximum capacity on their given acreage. It is unclear whether some respondents listed the total acreage they would put in production (including their existing production acreage), or just the additional acreage. The total number of potential arable acres given suitable markets is 205. This means that an average of 10 acres could be put into commercial production given suitable markets.
Following are the potential acreages indicated by some respondents:

<table>
<thead>
<tr>
<th>5</th>
<th>8</th>
<th>10</th>
<th>3</th>
<th>5</th>
<th>20</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Could lease property</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>1</td>
<td>20 (would partner)</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>40</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


• **Question 11 – What are your primary cash crops?**

38 out of 43 total positive respondents, or 88%, indicated their primary cash crops. Those crops are as follows in order of number of responses:

Christmas Trees (9), beef cattle (8), beans (4), ornamental trees/shrubs (4), potatoes (4), apples (3), honey (2), hay (2), blueberries (2), tobacco (2), strawberries (1), berries (1), lettuce (1), cabbage (1), eggs (1), produce (1), bread (1), mushrooms (1), rabbit meat (1)

• **Question 12 – Do you currently sell food products at local markets?**

12 out of 41 responding farmers (28%) said they do sell their foods at local markets, while 24 said they do not. This reflects the relatively high number of cattle and Christmas tree farmers who responded. We will assume that those who did not respond to this question do not currently sell food products at local markets.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>(28%)</td>
<td>(56%)</td>
</tr>
</tbody>
</table>

• **Question 13 – If yes, where do you currently sell your locally grown foods?**

23 out of 43 total positive respondents, or 54%, answered this question, with 9 of these respondents indicating that they currently sell food products at local farmers’ markets (21%) and 6 of these selling at both Spruce Pine and Bakersville. 11 respondents reported selling at other locations. Those locations are as follows:

- Bakersville Farmers’ Market (9)
- Spruce Pine Farmers’ Market (6)
- Penland School (1)
- Eastern Carolina Organics (1)
- French Broad Food Co-op in Asheville (1)
- at work (1)
- restaurants in Spruce Pine (1)
- on farm/from home (4)
- repeat customers (1)
- Walmart (1)
• Question 14 – Are you a current or former tobacco farmer?

37 out of 43 total positive respondents, or 86%, responded to this question.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>(58%)</td>
<td>(28%)</td>
</tr>
</tbody>
</table>

• Question 15 – Would you be interested in participating in the formation of a food distribution organization to supply local schools and hospitals with Mitchell County farm products?

A total of 31 out of 43 farmers responded to this question (72%)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Maybe/Did Not Answer (DNA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>(44%)</td>
<td>(28%)</td>
<td>(26%)</td>
</tr>
</tbody>
</table>

19 out of 43 farmers (44%) said they would be interested in participating, while 12 (28%) said they would not. Out of 11 farmers who did not answer the question, at least 2 said they were not sure or needed more information.

• Question 16 – Please add any other information that will be helpful for developing this project:

Responses are as follows:

Need more information

I have accessible cropland and decent farm equipment. My time is limited. I would consider partnering with (an) experienced vegetable producer.

I am small scale offering organic vegetables. Great hobby at my age.