



# **Food and Farm Assessment: Clay County, North Carolina**

Prepared for: Clay County Soil & Water Conservation District  
Clay County Small Farms Initiative

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## **Introduction**

This report provides the results of research conducted by Appalachian Sustainable Agriculture Project (ASAP) for the Clay County Small Farms Initiative in Clay County, North Carolina. The purpose of the research is to: (1) explore what food and farm products are currently produced in the region; (2) examine how much of what is produced is also consumed in the region; (3) consider the potential impacts of increased purchasing of locally-produced food and farm products; and (4) identify points where investment of resources or other actions could support local farms and local food. This report presents a wide-ranging collection of information on the region's food and farm economy which can form the basis for future efforts to expand local markets for local farm products.

Report findings are based on the analysis of secondary data and published statistics from the USDA 2007 Census of Agriculture, the US Census Bureau, other relevant data sources, and on the results of surveys conducted by ASAP in 2011 with businesses and residents in Clay County and the region. The report summarizes agricultural statistics for Clay County, a four-county area that includes Clay and Cherokee in North Carolina and Towns and Union in Georgia, and a six-county area that includes the four-county area plus Macon and Graham counties in North Carolina. The two extended areas will be referred to in the remainder of the report as the four-county and six-county areas.

The first three chapters of the report focus on statistical data about farm and farmland trends in the region. Chapters four through seven discuss food consumption and production patterns for the area, as well as the potential economic impacts of localizing the regional food system. The last chapter of the report provides recommendations for Clay County for the purpose of facilitating the expansion of the local food system, as well as strategies for promoting local food to residents and visitors.

## **1. The Clay County Food and Farm Economy**

Agriculture is the largest industry in North Carolina. The state ranks 8<sup>th</sup> nationally in farm income with \$10.3 billion of farm products marketed in 2007, up 48% from 2002.<sup>1</sup> A total of 52,913 farms were operating in the state in 2007 on nearly 8.5 million acres. The average farm size in North Carolina in 2007 was 160 acres, with the state’s largest farms concentrated in the eastern part of the state.

Clay County is classified as a rural county of Western North Carolina and is home to 10,587 residents.<sup>2</sup> As of the 2007 USDA Census of Agriculture Clay County had 137 farms and a total of 9,660 acres of farmland, or 7% of the total land area of the county. Significantly, 80.4% of the land area in Clay County is national forest.<sup>3</sup> Therefore, of the 26,806 acres of non-forest land in the county, farmland represents 36%.

The average farm size in Clay County is 71 acres; the average for the four county region is the same at 71 acres. The six-county region average is slightly lower at 67 acres. Table 1 illustrates the size distribution of farms in Clay County, the four-county area, and the six-county area. For all three geographic regions, small farms between 10 and 49 acres are the most common. The majority of farms in the region are smaller than the North Carolina state average size of 160 acres, a fact attributable to the topography of the mountainous terrain which makes it difficult for most farms to expand to the scale attained by farmers in eastern North Carolina.

Size of farm (acres)	Clay County	Four-county area	Six-county area
1 to 9 acres	18	79	135
10 to 49 acres	67	422	676
50 to 179 acres	38	241	369
180 to 499 acres	12	68	100
500 to 999 acres	2	11	13
1,000 acres or more	-	1	1
<b>Total</b>	<b>137</b>	<b>822</b>	<b>1,294</b>

Source: USDA Agricultural Census, 2007

### **Section 1. Cash Receipts from Farming**

For 2007 total agricultural receipts reported for the six-county area were nearly \$33.6 million. Clay County receipts accounted for over \$1.1 million of this total. Table 2 provides a breakdown of selected farm products sold in 2007 for Clay County, the four-county area, and the six-county area.

<sup>1</sup> The USDA Agricultural Census is conducted every five years. The most recently released data is from 2007. Throughout this report, data is from 2007 unless otherwise indicated.

<sup>2</sup> Source: US Census Bureau Quickfacts (2009), [http://quickfacts.census.gov/qfd/download\\_data.html](http://quickfacts.census.gov/qfd/download_data.html)

<sup>3</sup> Source: Clay County Chamber of Commerce

<sup>4</sup> The acreage designated as “land in farms” consists primarily of agricultural land used for crops, pasture, or grazing. It also includes woodland and wasteland not actually under cultivation or used for pasture or grazing, provided it was part of the farm operator’s total operation. Land in farms also includes idle cropland, cropland not harvested, and land in government conservation programs.

Appalachian Sustainable Agriculture Project (ASAP)  
Food and Farm Assessment: Clay County, North Carolina

Table 2. Market Value of Agricultural Products Sold for Clay County, Four-county, and Six-county Regions (2007)			
Market Value of Agricultural Products Sold	Clay (\$1,000)	Four-county <sup>5</sup> (\$1,000)	Six-county (\$1,000)
Total value of agricultural products sold	1,114	26,575	33,582
Value of crops including nursery and greenhouse	431	3,002	5,470
Value of livestock, poultry, and their products	683	4,914	9,453
Value of agricultural products sold directly to individuals for human consumption	25	196	431
<b>Value by Group</b>			
Grains, oilseeds, dry beans, & dry peas	(D) <sup>6</sup>	375	375
Tobacco	(D)	(D)	(D)
Cotton and cottonseed	-	-	-
Vegetables, melons, potatoes, and sweet potatoes	139	394	956
Fruits, tree nuts, and berries	(D)	158	158
Nursery, greenhouse, floriculture, and sod	(D)	1,536	2,422
Cut Christmas trees and short rotation woody crops	-	4	602
Other crops and hay	132	790	823
Poultry and eggs	3	11,494	11,519
Cattle and calves	570	1,260	2,584
Milk and other dairy products from cows	-	281	335
Hogs and pigs	-	(D)	10
Sheep, goats, and their products	7	47	110
Horses, ponies, mules, burros, and donkeys	(D)	90	121
Aquaculture	-	(D)	808
Other animals and other animal products	(D)	74	94

Source: USDA Census of Agriculture, 2007

While some of the data for specific products is not available, the table shows the predominance of livestock, poultry, and their products for the region. Cattle and calves accounted for the majority of this figure for each county except Graham, where aquaculture dominated. For Clay County, livestock production accounted for about 61% of all 2007 agricultural sales.

<sup>5</sup> The USDA Census of Agriculture suppressed specific monetary data for Union County, GA regarding “Value of crops including nursery and greenhouse” and “Value of livestock, poultry, and their products.” However the census does, provide the “Total value of agricultural products sold” for Union County. For this reason the “Value of crops” plus “Value of livestock” categories in the four-county and six-county sales do not add up to the “Total value of agricultural products sold.”

<sup>6</sup> (D) indicates that specific data has been withheld by the USDA to avoid disclosing data for individual farms.

Another important segment was vegetables, melons, and potatoes. In Clay County, vegetable products accounted for 32% of crop sales and 13% of total sales. Sales of these items grew significantly from 2002 to 2007, from \$46,000 to \$139,000.

Though not depicted in the table, Clay County experienced a steep decline in poultry and egg production from 2002 to 2007; sales dropped from \$85,000 to \$3,000.

## **2. Trends in Farming and Farmland**

Data from the preceding chapter provides a snapshot of the Clay County and surrounding area's farm economy. A more complete picture emerges when regional trends and their effect on production are examined.

### **Section 1. Decline in Farms and Acres of Farmland**

Table 3 shows trends in farm numbers and farmland acreage in Clay County from 1992 to 2007. The total acreage of farms declined by nearly half (41%) over the 15 year period while the total number of farms diminished by 15%. The decline in numbers of farms began before 1992; from 1982 to 1992, the total number of farms in Clay County dropped from 220 to 161.<sup>7</sup> While the number of farms 50 acres or greater declined significantly (from 91 to 52, or -43% from 1992 to 2007), the number of farms under 50 acres increased (from 70 to 85, or +21% from 1992 to 2007). Commensurate with this trend, the average farm size in Clay County decreased steadily from 1997 to 2007.

Table 3. Clay County Number of Farms and Acres of Farmland, 1992 – 2007 (% change rounded to nearest whole number)					
	1992	1997	2002	2007	% Change 1992-2007
<b>Farms</b>	161	166	168	137	-15%
<b>Land in farms (acres)</b>	16,405	18,288	13,434	9,660	-41%
<b>Average size of farm (acres)</b>	102	110	80	71	-30%
<b>1 to 9 acres</b>	13	12	19	18	+39%
<b>10 to 49 acres</b>	57	56	73	67	+18%
<b>50 to 179 acres</b>	65	72	61	38	-42%
<b>180 to 499 acres</b>	21	18	12	12	-43%
<b>500 to 999 acres</b>	5	7	2	2	-60%
<b>1,000 acres or more</b>	- <sup>8</sup>	1	1	-	-

Source: USDA Census of Agriculture, 2007, 2002, 1992

Table 4 shows trends in farm numbers and farmland acreage for the six-county region from 1992 to 2007. From 1992 to 1997 the six-county region experienced an overall *increase* in the number of farms (87 for an increase of 7.2%) but a *decrease* in farmland (16,340 acres for a decrease of 15.8%). Similar to the trend in Clay County, small farms experienced an increase in numbers with those less than 50 acres growing by 211 farms for a 35.2% increase. After showing an increase in numbers from 1992 to 2002, farms larger than 50 acres decreased to below 1992

<sup>7</sup> Mills, S, and S Bingham, 2010. *A Farmland Protection Plan for Clay County, North Carolina*.

<sup>8</sup> This symbol is used by the USDA to represent zero.

levels by the year 2007. There was a 39.4% increase in farms over 50 acres from 1992 to 2002, but a decrease of 42.9% from 2002 to 2007. The overall decrease in farms 50 acres or larger from 1992 to 2007 was 20.4%.

Nationally the number of farms increased 3.6% from 2002 to 2007. The majority of this increase occurred in small farms. Farms in the 1 to 9 acre category increased nearly 30% while those 10 to 49 acres rose 10%. Though the total number of farms decreased in the six-county area, like the national trend there was a large increase in the number of farms under 50 acres (+35.2%).

Table 4. Six-county Area Number of Farms and Acres of Farmland, 1992 – 2007 (% change rounded to nearest whole number)					
	2007	2002	1997	1992	% Change 1992-2007
<b>Farms</b>	1,294	921	1,415	1,207	+7.2%
<b>Land in farms (acres)</b>	86,848	101,814	109,562	103,188	-15.8%
<b>Average size of farm (acres)</b>	66.7	72.5	76.7	84.7	-21.3%
<b>1 to 9 acres</b>	135	103	139	117	+15.4%
<b>10 to 49 acres</b>	676	448	631	483	+40%
<b>50 to 179 acres</b>	369	564	441	465	-20.6%
<b>180 to 499 acres</b>	100	223	112	123	-18.7%
<b>500 to 999 acres</b>	13	51	18	17	-23.5%
<b>1,000 acres or more</b>	1	8	4	2	-50%

Source: USDA Census of Agriculture, 2007, 2002, 1992

## Section 2. Aging of the Farm Population

According to the USDA, the average age of farmers has increased every year since 1978. The average age of all U.S. farm operators has been greater than 50 years of age since at least the 1974 census. Between 2002 and 2007, the national average increased from 55.3 years of age to 57.1 years of age.<sup>9</sup> Farmers in Clay County are older on average than those across the country; the average age of Clay County farmers is 59.6, while the average farmer age for the four-county and six-county regions are 57.8 and 57.7, respectively.<sup>10</sup>

Definite relationships exist between age of farm operator and particular farm characteristics. For example, family farms typically have older farm operators than corporate farms, and farms in smaller income classes typically have older farm operators than larger income class farms.<sup>11</sup> With the concentration of family farms in the region, it is not surprising that the average operator age is greater than the national average.

Beginning in 2002, the USDA began gathering additional information about farm operator characteristics to help clarify issues related to the aging of the farm population, such as farm succession plans and the extent to which young farmers are replacing older farmers as they retire

<sup>9</sup> *Farmers by Age*, 2007 Census of Agriculture

<sup>10</sup> Sources: 2007 Census of Agriculture, US Census Bureau Quickfacts (average ages)

<sup>11</sup> *What We Know About the Demographics of U.S. Farm Operators*, 2005, National Agricultural Statistics Service, USDA

from farming. The new data indicates that only about 9% of all farms nationwide have multiple operators from different generations working on their farms as farm operators, and the likelihood of having multiple operators is significantly lower for lower income class farms that predominate in this region.

A 2010 survey of Clay County landowners commissioned by the Clay County Farmland Preservation Committee found that 37% of respondents were age 70 or over.<sup>12</sup> In addition, the majority of responding landowners (71%) indicated that their land had been in family ownership for over 50 years, and less than half (46%) reported that they had a farm transition plan in place. These responses suggest that agriculture in Clay County is at a crucial turning point, where many farms are approaching transition.

### Section 3. The Tobacco Buyout and Related Shifts in Production

The single largest influence on the North Carolina farm economy in recent years is commonly referred to as the 2004 tobacco buyout. Effects of the changes in tobacco policy began in the mid-1990s as growers began anticipating the end of federal tobacco support. Quota cuts and falling prices during the 1990s also contributed to a changing landscape of tobacco production in the region.

The buyout refers to Fair and Equitable Transition Act passed by Congress on October 22, 2004. The legislation eliminated federal price support and supply control programs which had regulated tobacco production and marketing since the Great Depression era. It opened tobacco production to an unregulated, free market system beginning with the 2005 crop. Payments to growers and quota owners under the tobacco buyout were scheduled to take place over ten years, which means that the full effects of the buyout are still to be fully actualized.

For North Carolina, number one in the U.S. in the production of tobacco with 36% to 38% of total tobacco production, the full impact of the buyout will be dramatic. Some experts have estimated that as many as five out of six farmers growing tobacco will find another way to earn a living and that the majority of small-scale farms growing tobacco under the old system will no longer be viable in the tobacco market.<sup>13</sup>

The effects of the 2004 tobacco buyout are apparent in Clay County and the surrounding areas. Between 2002 and 2007, the number of farms growing tobacco fell drastically from 30 to 5 farms within Clay County and from 88 to 5 farms in the six-county area. With many regional farmers exiting tobacco production, there is a tremendous need and opportunity to shift farm production into different crops and markets.

### Section 4. Consolidation of the Food System

Over the past 50 years, concentration in the ownership and management of food production and marketing has dramatically restructured the agricultural and food industries in the U.S. and globally. Horizontal and vertical integration, mergers and acquisitions, and the use of supply

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<sup>12</sup> Mills, S, and S Bingham, 2010. *A Farmland Protection Plan for Clay County, North Carolina*.

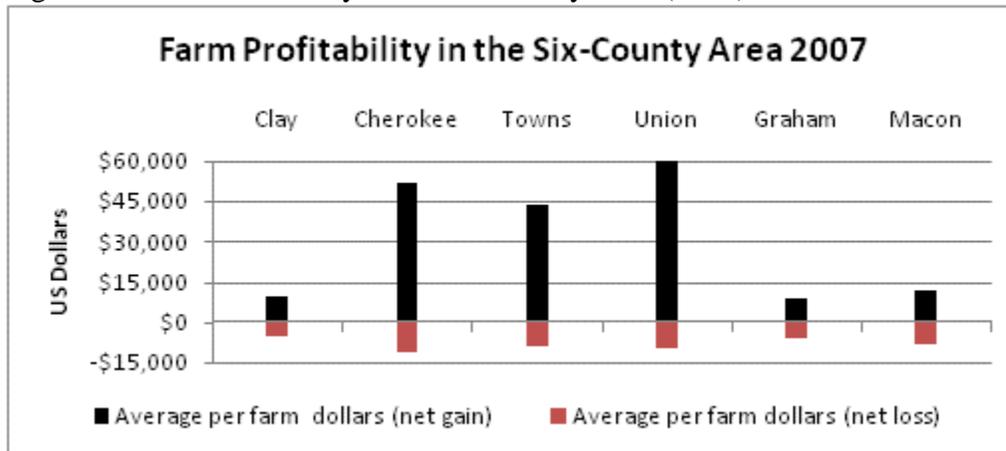
<sup>13</sup> *The Agricultural Reinvestment Report*. 2006. Rural Advancement Foundation International-USA.

chain management strategies are mechanisms by which change has occurred. The result is that fewer but larger companies have come to dominate each stage of production, processing, and distribution. Consolidation in retail and wholesale markets in particular makes it increasingly difficult for small farmers to maintain their market share. Despite these trends, significant opportunities exist for Clay County producers in local markets. Local markets present small producers, in particular, with increased market options, and they offer markets that are less vulnerable to global price fluctuations. High levels of consumer demand for locally grown food exist in the project region and interest by food retailers, wholesalers, and institutions in meeting consumer demand is increasing.

### **3. Economic Considerations**

An analysis of current farm profitability is necessary to determine the long-term viability of the region's farms. The USDA reports that the net cash farm income for farmers in the six-county area in 2007 was \$7,934,000 with farms earning an average of \$6,138. However these averaged figures are do not accurately represent the trends in farm profitability for the area. Figure 1 below is a graphic representation of the net profitability of farms in the six-county area. The trend across all counties in the region is the same; the average net profit earned by profitable farms (\$31,748) exceeds the average net loss of unprofitable farms (-\$8,257).

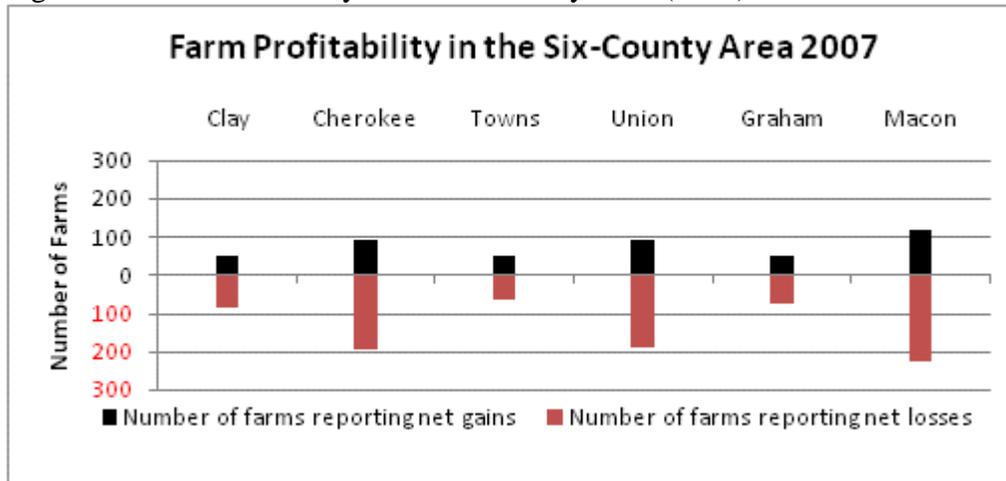
Figure 1: Farm Profitability in the Six-county Area (2007) Farm Dollars



Source: USDA Census of Agriculture, 2007

There is a second important piece to the profitability profile. Figure 2 below is similar to Figure 1 in that it depicts farm profitability by county; however the focus of Figure 2 is the number of farms reporting net gains or net losses for the year 2007. For the six-county area, the total number of farms reporting net gains was 458. The total number of farms reporting net losses was 836.

Figure 2: Farm Profitability in the Six-county Area (2007) Number of



Source: USDA Census of Agriculture, 2007

Therefore, while the profitable farms (from Figure 1) in the area reported high average gains and gave the region an overall positive production balance, a much larger number of individual farms lost money. It is not uncommon for small family farms to lose money. In fact, some small farms stay in farming for reasons other than profitability, such as continuing a family tradition or maintaining a rural lifestyle.<sup>14</sup> Long term sustainability of the farm sector, however, depends on improving the ability of regional farms to be profitable.

The ability of individual farms to earn a profit depends on their ability to increase total revenues and/or lower total costs. Revenue streams and costs of production vary substantially by product. Meat prices, for example, are much higher per pound than vegetable prices, but the costs of production are also much higher. Revenues are driven by prices, which are largely out of producers' control. One bright spot is in the rise in the popularity of local food and farm products which can provide an avenue for increased prices and lower production and distribution costs for farmers.

Decreasing the distance between the producer and the consumer has multiple benefits. Farmers have the potential to earn higher prices by selling directly to buyers – consumers or businesses – rather than to intermediaries, such as packers, wholesalers, and distributors. Whether or not that translates into higher profits depends on the extent to which transaction costs also increase. Transaction costs include everything from harvesting to packaging to marketing farm products and vary according to how or where products are sold.

The emphasis on expanding local markets for local farm products in this report is based on an underlying assumption that local markets can both increase the market value of farm products – by enabling farmers to earn a premium for locally-grown foods – and reduce total costs by shortening the transaction chain between farmers and end consumers.

<sup>14</sup> Robert A. Hoppe, P. Korb, E. O'Donoghue, D. Banker, *Structure and Finances of U.S. Farms: Family Farm Report, 2007 Edition*. June 2007. Economic Research Service, USDA.

#### **4. Opportunities in the Local Market for Locally-Grown Foods**

Despite national trends toward consolidation, other national trends demonstrate opportunities for producers in local markets. Data released by the 2007 Agricultural Census shows nationally that direct food sales rose 49 percent to \$1.2 billion in 2007 from \$812 million in 2002. Census data also shows an increase in the number of farms, particularly small farms (those less than 50 acres), which reverses a decades-long trend. Both trends reflect the rapidly growing consumer interest in knowing who is growing their food. National market research by firms like the Hartman Group and JWT Advertising have identified “local” as one of the food attributes most highly valued by consumers nationwide. Experts have predicted that consumer demand will shift from organics to locally sourced food. The USDA has predicted that the market for locally grown food will reach \$7 billion in 2012.<sup>15</sup>

ASAP’s 2007 study on the food and farming economy of the 23 counties of Western North Carolina quantified demand for locally grown fresh fruits and vegetables at that time to be \$36 million per year and as high as \$452 million for all locally grown foods. The results of a 2011 consumer survey commissioned by ASAP shows that for residents of Clay County, buying locally grown food is important because it greatly contributes to the local economy (92% of respondents) and helps support local farms (88% of respondents). For the majority of respondents, the availability of locally grown food is an important consideration when choosing a grocery store (75%) or a restaurant (60%). Furthermore, the research demonstrates the importance of labeling local food and place-based messaging that ties local food to local community: 52% of respondents stated that they would buy more locally grown food if it was labeled as local and 44% of respondents said that when local is more expensive it is worth the cost.

The research demonstrates high levels of demand for local food exist and interest by food retailers and wholesalers in meeting consumer demand is increasing.

##### ***Cost of Community Services (COCS) Studies***

The American Farmland Trust research division conducts fiscal analyses that focus on the way different types of land use affect local government taxation and spending. Nearly 20 years of data show that residential development is a fiscal net loss for communities (traffic congestion, water and air pollution, increase in demand for costly public services). Farmland on the other hand often generates a fiscal surplus that helps offset the deficit created by residential demand for public services.

There is a common misconception among local development planners that open land should be developed for its “highest and best use,” that agricultural lands receive unfair tax breaks, and that residential development will lower property taxes by increasing the tax base. Results from COCS studies show that, based on cost per dollar of revenue raised to provide public services to different land uses, commercial and industrial development are the least costly form of development (median cost per dollar: \$0.29) followed closely by working and open land (median cost per dollar \$0.35). Residential development comes in at a distant third (median cost per dollar \$1.16). In other words, when considering development plans, planning departments should note that preserving farmland and open space is often a profitable strategy in the long run. For more information visit <http://www.farmland.org/>

<sup>15</sup> USDA (May 24, 2011), *New USDA Rule Encourages the Purchase of Local Agricultural Products for Critical Nutrition Assistance Programs*. News Release No. 0180.11

## **5. Consumer Food Spending and Consumption Figures**

The following sections examine demographic and consumption statistics in four nearby urban areas as a first step in assessing the feasibility of marketing Clay County-grown products to those areas. The following measures pertain to the central counties of the Asheville<sup>16</sup>, Atlanta<sup>17</sup>, Chattanooga,<sup>18</sup> and Greenville<sup>19</sup> Metropolitan Statistical Areas (MSA).<sup>20</sup>

### **Section 1. Market Demographics**

- With a population of 4,914,000 in 2009, Atlanta is the fifth largest city in the southeastern US. Greenville, Chattanooga, and Asheville are midsize cities, with 2009 populations of 570,000, 466,000, and 392,000, respectively.<sup>21</sup>
- The per capita personal income for Atlanta in 2007 was \$38,900; for Chattanooga, \$34,000; for Greenville, \$33,300; for Asheville, \$32,800.<sup>22</sup>
- In 2009, 84.8% of Atlanta residents 25 years old and older had completed high school, compared to 81.6% of Asheville residents, 78.3% of Greenville residents, and 78.1% of Chattanooga residents. In Atlanta, 32.9% of residents had attained a bachelor's degree or higher, compared to 24.7% of Greenville residents, 23.6% of Asheville residents, and 20.6% of Chattanooga residents.<sup>23</sup>

### **Section 2. Consumer Food Spending**

Based on 2007 consumption estimates, the residents of the six-county area including Clay County spent over \$271.5 million on food in 2009, while residents of Asheville spent nearly \$1 billion, residents of Chattanooga and Greenville each over \$1.1 billion, and residents of Atlanta \$11.7 billion.<sup>24</sup> Regional estimates indicate that the average household in the southern US spends 59% of total food expenditures on food consumed at home, and the remaining 41% on food consumed away from home. This means that Atlanta residents, for example, spent a total of \$6.8 billion on groceries and over \$4.8 billion on food consumed in other places in 2009, while Chattanooga and Greenville each spent about \$721 million on groceries and \$510 million on food consumed away from home.<sup>25</sup>

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<sup>16</sup> Comprising Buncombe, Haywood and Henderson counties in NC.

<sup>17</sup> Comprising Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Newton, Paulding, Rockdale, and Spalding counties in GA.

<sup>18</sup> Comprising Hamilton county in TN and Catoosa and Walker counties in GA.

<sup>19</sup> Comprising Greenville and Pickens counties in SC.

<sup>20</sup> MSA central counties are defined by the US Census Bureau as counties that (a) have at least 50 percent of their population in urban areas of at least 10,000 population; or (b) have within their boundaries a population of at least 5,000 located in a single urban area of at least 10,000 population.

<sup>21</sup> Source: US Census Bureau Quickfacts (2009), [http://quickfacts.census.gov/qfd/download\\_data.html](http://quickfacts.census.gov/qfd/download_data.html)

<sup>22</sup> Source: US Census Bureau Quickfacts, [http://quickfacts.census.gov/qfd/download\\_data.html](http://quickfacts.census.gov/qfd/download_data.html)

<sup>23</sup> Source: US Census Bureau American Factfinder, <http://factfinder.census.gov/>

<sup>24</sup> Bureau of Labor Statistics Table 33. Southern region by income before taxes: Average annual expenditures and characteristics, Consumer Expenditure Survey, 2008-2009.

<sup>25</sup> A little less than three quarters of all away-from-home food spending typically occurs in restaurants.

Tourists visiting the area also spend a significant amount on food. In 2009, visitors to the four counties in North Carolina (Clay, Cherokee, Macon, Graham) spent \$38.7 million on food, drink, and meals.<sup>26</sup> Restaurant sales to tourists in the same four counties were estimated at over \$32.1 million.<sup>27</sup>

### Section 3. Consumption Figures

The market potential for locally grown foods in the large metropolitan areas near Clay County is immense. However, in considering production and consumption of fresh produce, meats, and dairy products, this report focuses on the six-county region. This area represents a more realistic target market for Clay County producers. *Fruits and Vegetables*

Table 5 shows consumption estimates for 42 different fresh fruits and vegetables that can be grown in the six-county area. Column 1 in the table shows the amount of each product that is consumed in the six-county area. Column 2 shows acreage needed to grow those amounts, and Column 3 shows how many acres were devoted to growing the crops in the six-county area in 2007. County-level production acreage data is inexact. In some cases, the USDA suppresses county-level data; for example, when production is limited or only one or two farms report growing a particular crop. In other cases reported acreage may be higher than actual acreage because of formulas used by the USDA to create county profiles that are based on limited information. All estimates should be viewed in this context.

Even with incomplete data, what is clear from Table 5 is that there is significantly more demand (consumption) than supply for nearly every type of fresh fruit and vegetable grown in the region. Achieving a level of supply equal to the level of consumption in this region (i.e., matching Column 3 with Column 2) is not realistic because it assumes year-round production of fresh fruits and vegetables. Rather, there is some point between Columns 2 and 3 that represents a practical target for local production in a strong local food system.

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<sup>26</sup> Calculated by multiplying the average percentage of total expenditures that tourists to the six-county area spend on food, drink and meals by total tourist expenditures in the six-county area (sources: Evans, Davé, Stoddard, Ha, "Measurement of the Economic Vitality of the Blue Ridge National Heritage Area," available online: <http://www.blueridgeheritage.com/sites/default/files/images/PDFs/Research/BRNHAVisitorSurvey2005.pdf> ; North Carolina Department of Commerce, "The 2009 Economic Impact of Travel on North Carolina Counties," available online: <http://www.nccommerce.com/>)

<sup>27</sup> The National Restaurant Association indicates that 35% of all restaurant sales nationally are made to tourists. Therefore restaurant sales to tourists can be estimated by taking 35% of all restaurant sales in the six-county area (source: 2009 Survey of Buying Power, <http://www.surveyofbuyingpower.com>)

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Table 5: Comparison of Consumption and Production of Selected Fresh Fruits and Vegetables that can be Grown in Six-county Area <sup>28</sup>			
	<b>Column 1: Pounds consumed in six-county</b>	<b>Column 2: Acres need to produce that amount</b>	<b>Column 3: Acres devoted to the crop in six-county</b>
Apples	1,821,405	90	53
Berries	59,700	6	40
Cantaloupe	1,000,252	100	12
Cherries	112,641	- <sup>29</sup>	(D)
Grapes	960,828	110	13
Melons	185,858	20	-
Peaches	571,090	60	1
Pears	351,440	-	(Z) <sup>30</sup>
Plums	103,630	-	(D)
Strawberries	726,534	50	13
Watermelon	1,740,303	70	5
Asparagus	132,916	60	(D)
Beans	239,925	40	36
Broccoli	669,088	100	-
Cabbage	922,530	30	(D)
Carrots	909,013	40	-
Cauliflower	176,846	30	-
Celery	701,753	20	-
Corn (Sweet)	1,037,424	180	74
Cucumbers	759,200	50	9
Eggplant	96,871	4	-
Garlic	312,016	90	-
Greens	155,445	-	(D)
Mushrooms	274,844	1	(D)
Onion	2,162,707	70	-
Lettuce (Leaf + Head)	3,151,695	130	-
Peas	-	-	(Z)
Peppers (Bell)	1,109,514	100	12
Potatoes	4,133,925	260	45
Pumpkins	549,688	30	5
Radishes	58,573	10	-
Spinach	182,478	20	-
Squash	469,713	20	82
Sweet Potatoes	566,584	40	(D)
Tomatoes	2,083,859	80	37

Source: [Column 1] ERS/USDA Data Food Availability (Per Capita) Data System: Food Guide Pyramid (2010); [Column 2 and 3] USDA Census of Agriculture, 2007.

<sup>28</sup> Table 5 represents a selection of fruits and vegetables grown in the region. While there are other types of fruits and vegetables produced in the region, specific data is unavailable (ex: nectarines, beets, leeks, sprouts, herbs, green onion, peas, romaine).

<sup>29</sup> - is used by the USDA to represent zero.

<sup>30</sup> (Z) is used by the USDA to indicate when the value is less than half of the unit used.

Although production data are not available for processed products, Table 6 shows consumption of processed fruits and vegetables in the six-county area. Commensurate with their large populations, large amounts of processed fruits and vegetables are also consumed in the urban centers of Atlanta, Chattanooga, Greenville, and Asheville. With strong demand for ready-to-eat foods, processing locally-grown fruits and vegetables may be one way to expand consumption of local farm products.

Table 6. Consumption of Selected Categories of Processed Fruits and Vegetables in the Six-county Area	
<b>Pounds consumed in Six-county area</b>	
<b>Processed fruits</b>	
<b>Canned apples/applesauce</b>	496,747
<b>Canned peaches</b>	335,670
<b>Apple juice</b>	2,892,621
<b>Frozen berries</b>	382,979
<b>Canned pears</b>	252,316
<b>Grape juice</b>	557,573
<b>Other processed fruits</b>	8,959,465
<b>Processed vegetables</b>	
<b>Canned tomatoes</b>	7,569,475
<b>Pickles (cucumbers)</b>	399,876
<b>Canned snap beans</b>	372,842
<b>Canned carrots</b>	108,135
<b>Other canned vegetables</b>	2,273,095
<b>Frozen vegetables</b>	8,583,244
<b>Dehydrated vegetables</b>	3,345,438

Source: ERS/USDA Data Food Availability (Per Capita) Data System: Food Guide Pyramid (2008)

### *Meat and Dairy*

As in the case of fresh fruits and vegetables, the yearly consumption of selected meat products in the six-county area is also generally much higher than reported production in the same area (Table 7). Of the meat products examined, beef production in the six-county area is the only product that exceeds the level of local consumption.

It is important to note that the majority of the region's beef production is in cow/calf operations. However, shifts are occurring in the region with the emergence of grass-fed, artisanal, and niche markets. The USDA estimates that the percent of livestock producers who target direct markets is about 1 percent. Access to a government-inspected processing facility is the principal infrastructure obstacle for any type of meat. Grass-fed and grass-finished beef also require land for pasture, on-farm animal handling facilities, and adequate cold storage for processed meat products. To shift into this type of production, cow/calf producers would need to learn and adopt new practices, including more closely managed grazing and pasture management.

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	Pounds consumed	Pounds produced
<b>Beef</b>	10,306,652	10,764,011
<b>Chicken (broilers)</b>	10,993,762	(D)
<b>Pork</b>	7,096,383	20,934
<b>Lamb</b>	123,905	16,330*
<b>Turkey</b>	1,982,482	393*

Sources: The figures in the table are based on a series of calculations combining data from the 2007 Census of Agriculture and the Agriculture Statistics division of the North Carolina Department of Agriculture.

\*These estimates are low because data for some counties were withheld.

An estimated 7,041,951 pounds of milk were produced in the six-county area in 2007, equal to 35% of the fluid milk consumed in the same area (Table 8). Some portion of that amount is marketed as fluid milk, and some is used to make cheese and other processed dairy products. No information is available from government sources detailing the end uses of milk produced in the area. In 2007, there were no dairy farms reported from Clay County.

	Pounds consumed	Pounds produced
<b>Fluid Milk</b>	20,174,003	7,041,951
<b>All cheese</b>	3,367,966	(NA)
<b>All frozen dairy</b>	2,816,025	(NA)
<b>Yogurt</b>	1,329,164	(NA)
<b>Butter</b>	563,205	(NA)

Source: Production data for milk is derived from 2007 Census of Agriculture data combined with production statistics provided by the North Carolina Department of Agriculture.

## **6. Clay County Consumer Preferences for Local**

To assess the values Clay County residents associate with locally-grown foods, phone interviews were conducted with 50 individuals from April 8 to April 22, 2011. Specific points of interest targeted by the survey include local food purchasing habits, conceptions of locally-grown foods, and the effect of advertising in influencing local food purchasing habits.<sup>31</sup>

Based on the Bureau of Labor Statistics' *Average Annual Expenditures and Characteristics, Consumer Expenditure Survey* Clay County residents spend \$36,927,456 per year on groceries. Based on survey responses, Clay County residents estimate their own expenditures on groceries to be between \$24,351,794 and \$33,920,748+ per year, a very similar figure to the Bureau of Labor Statistics estimate. Extrapolating from a combination of survey results and Bureau of Labor Statistics estimates, Clay County residents spend between \$1.7 million and \$3.8 million on

<sup>31</sup> See Appendix B for the full results of the consumer survey.

locally-grown food per year. Sixty percent of residents reported purchasing locally-grown food on a weekly basis with the majority of those purchases occurring at farms or farm stands, followed by grocery store purchases, and farmers market purchases. Compared to other residents of Western North Carolina, Clay County residents report they are more likely to grow their own food for home consumption (62% of Clay County residents compared to 55% of WNC residents).

The top three factors motivating Clay County residents to purchase locally-grown foods are supporting the local economy, supporting local farms, and preserving the rural character of the region. Survey participants further cited the freshness of local food as a key motivator for purchasing a local product over a non-local product. Overall, though Clay County survey participants routinely purchase local foods and support establishments that sell or produce local foods, they indicated a lack of advertising and awareness of local products in their area compared to other residents of Western North Carolina.

## **7. Local Production**

There is an upper limit to the amount of produce consumers and businesses can purchase from regional growers based on climate and soil related limitations. Local farmers could not supply 100% of produce to local buyers because they cannot grow avocados, lemons, or bananas, for example, no matter how much local food infrastructure is improved. They can, however, grow each of 42 different types of fruits and vegetables that accounted for 75.7% of produce sales in retail outlets nationwide in 2010. In Table 9 these 42 items are listed along with their corresponding share of total retail produce sales.

Farmers can grow all of the items listed in Table 9, but some are limited to the months of the summer season and others to the winter season. Some items, like apples, can be supplied to local markets for more than six months of the year and others for less. Based on Western North Carolina's regional produce availability calendar, on average local farmers can grow 75.7% of the area's most popular retail produce items for 50 percent of the year, and therefore supply 38% of the total yearly produce purchases of residents ( $75.7\% \times 50\% = 38\%$ ). Taking these variations into account, 38% represents a reasonable adjustment for the seasonality of production.<sup>32</sup>

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<sup>32</sup> The calculation of seasonality is based on the average growth season length for all fruits and vegetables in Table 9.

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Table 9: Dollar Share of Retail Produce Sales for Selected Fruits and Vegetables					
Fruits	% of Total Produce Sales in year	Vegetables	% of Total Produce Sales in year	Vegetables (Continued)	% of Total Produce Sales in year
Apples	7.1%	Asparagus	1.4%	Leeks	0.1%
Berries	2.8%	Beans	0.8%	Mushrooms	2.2%
Cantaloupe	1.7%	Beets	0.1%	Onion	4.3%
Cherries	1.9%	Broccoli	1.7%	Lettuce	2.2%
Grapes	6.4%	Cabbage	0.7%	Peas	0.3%
Nectarines	0.8%	Carrots	2.5%	Peppers (Bell)	2.6%
Melons	0.7%	Cauliflower	0.6%	Potatoes	5.7%
Peaches	1.2%	Celery	1.5%	Pumpkins	0.2%
Pears	1.1%	Corn (Sweet)	1.2%	Radishes	0.2%
Plums	0.6%	Cucumbers	1.7%	Romaine	1.1%
Strawberries	4.9%	Eggplant	0.2%	Spinach	0.6%
Watermelon	2.4%	Garlic	0.5%	Sprouts	0.1%
		Green Onion	0.5%	Squash	1.4%
		Greens	0.3%	Sweet Potatoes	1.0%
		Herbs	1.0%	Tomatoes	7.5%
<i>Column Totals</i>	<i>31.6%</i>		<i>14.7%</i>		<i>29.4%</i>
Total share of produce accounted for by fruits & vegetables that can be grown in the six-county area: <b>75.7%</b>					

Section 1. Summary of Local Market Potential for Locally-Grown Foods

This section calculates potential local food spending based on six-county consumption figures. A local potential spending figure assumes significant improvements to infrastructure and distribution systems for locally grown produce in addition to changes in tastes and preferences so that all residents in the six-county area choose to purchase local food when it is available. Though this figure takes into account the growing season of local produce, it still assumes the use of practices like extending growing seasons, greenhouse production, and improved storage and processing techniques to maximize production potential and meet local demand. These projections are grounded in measured consumption and production figures for the region.

Table 10 below shows potential retail spending on local produce and meat based on six-county consumption figures. The potential local retail spending figure of \$4.6 million represents the economic impact to the region if local farms were to supply all of the meat and produce needs of the six-county area during their specified growing seasons.

*Potential Local Spending for Fruits and Vegetables*

Potential local spending for fruits and vegetables of \$3,670,700 is calculated as total consumption multiplied by the average retail price per pound for each of 42 selected types of fruits and vegetables multiplied by the 38% seasonality multiplier. It is equal to the potential yearly local retail spending for the selected 42 fruits and vegetables grown in the region. (28,490,288 lbs of produce x \$/lb for each type of produce x 38% seasonality multiplier = \$3,670,700 spending).

*Potential Local Spending for Meat*

Potential local spending for meat (beef, chicken, pork, turkey) of \$967,500 is calculated as total consumption of beef, chicken, pork, and turkey in the six-county area multiplied by the average retail price per pound of each meat, or \$96,750,200. Local meats represent approximately 1% of this total.<sup>33</sup> \$967,500 represents the spending potential for locally raised meat in the region. (30,503,183lbs of meat consumed x \$/lb for each type of meat x 1% = \$967,500spending).

Table 10: Potential Retail Spending for Produce and Meats in six-county Area			
	<b>Total Consumption (lbs.) 2009</b>	<b>Total Retail Spending</b>	<b>Potential Local Spending</b>
<b>Fresh Fruits &amp; Vegetables<sup>34</sup></b>	28,490,288	\$9,659,800	\$3,670,700
<b>Meats (beef, chicken, pork, turkey)<sup>35</sup></b>	30,503,183	\$96,750,200	\$967,500
<b>Total Retail Spending: \$106.4 million</b>			
<b>Potential Local Spending: \$4.6 million</b>			

Source: The figures in the table are based on a series of calculations combining data from the 2007 Census of Agriculture the ERS/USDA Data Food Availability (Per Capita) Data System: Food Guide Pyramid, and The Packer which provided the 2010 average price per pound for produce.

<sup>33</sup> Large corporate livestock and poultry operations in the region are not likely to convert their production to support local market sales. Instead, smaller operations with greater infrastructure flexibility will be the target producers to supply local markets. According to a report published by the USDA the percent of livestock operations that tend to target direct markets is about 1%. *Small Scale US Cow-calf Operations*, April 2011. USDA, Animal and Plant Health Inspection Service, Veterinary Services, National Animal Health Monitoring System.

<sup>34</sup> Estimates are based on the calculations presented in Table 5 and come from the ERS/USDA Data Food Availability (Per Capita) Data System: Food Guide Pyramid and USDA Census of Agriculture, 2007.

<sup>35</sup> Ibid.

### *Combined Spending Potential*

An important note about local potential spending detailed in this section is that there are significant types of infrastructure improvements needed to achieve these dollar figures. For example, moving fresh produce from farm to market may require refrigerated trucks and storage facilities; moving meat from farm to market will require those things plus facilities for processing. To achieve maximum access to the 42 fruits and vegetables, creative innovations will need to be instituted like extending crop seasons, developing storage techniques, and utilizing alternative indoor growing methods. The \$4.6 million figure should be regarded as a long-term goal linked to substantial changes in local food production and distribution systems plus increased spending linked to increased interest in local food.

### ***The Multiplier Effect***

The local multiplier effect (LME) is a term first used by economist John Maynard Keynes in his 1936 book *The General Theory of Employment, Interest, and Money* to describe the way that dollars are re-circulated within a local economy before leaving through the purchase of an import. According to the theory, consumer spending on local farm products generates a greater economic return than spending at corporate chains as farmers re-spend the money on products and services in their community.

There are many factors which influence the number of times dollars are thought to re-circulate, but LME's are commonly reported to range from 1.5 to 3.0. If the six-county region were to reach \$4.6 million in local food spending, by LME theory the total economic impact would be between \$6.9 million and \$13.8 million.

## **8. Bridging the Gap between Demand and Supply**

The gap refers to the fact that there is more potential and real demand than supply for many types of food produced in the Clay County region and that many consumers, businesses, and organizations indicate a desire for more locally-grown food than they can currently buy. Supply, in this case, includes all facets of food procurement and distribution including issues involving equipment, facilities, and processes for moving food from farm to market. This chapter draws on research and information presented throughout the report to generate recommendations and make conclusions about bridging the gap between demand and supply of locally-grown food in the Clay County region.

The following recommendations reflect an underlying assumption that the local food system will change incrementally over many years; aiming for maximum potential will require a long-term perspective. Each recommendation is intended to provide insight into current opportunities for supporting and advancing the local food system, as well as recommendations for points of action.

## Section 1. Recommendations

### *Promote Clay County farms and food*

With increased interest by consumers in supporting local farms and buying local food, it is vital that consumers know where to find local food across direct, retail, and institutional market settings. Demand for local can only be realized if consumers can find and identify local products. In the consumer survey of Clay County residents 60 percent of respondents indicated that local food is a very important consideration to them when choosing a restaurant and 75 percent indicated that it was important when choosing a grocery store.

**Next Steps:** Promote what is being grown in the area and where it is being sold. Promote direct to consumer markets – Community Supported Agriculture (CSAs), farmers markets, farm stands. Identify restaurants, grocery stores, and other non-direct market outlets sourcing and selling locally grown food. Help them to promote their efforts to their customers and to the wider community. In the context of increasing interest and demand, marketing and promotion of locally grown through advertisements, in-store promotional materials, packaging and labeling, and other forms of promotion is a critical element. Publicize food and farm events: food festivals and farm tours. Distribute the Local Food Guide as a centralized source of information on how to access food from local farms. Work to develop a library of photographs and information about Clay County agriculture to share with local businesses, the media, and schools. Provide your local visitor center with materials – Local Food Guides, rack cards, farm profiles, etc – to promote farms and farm experiences to visitors. Partner with groups such as ASAP, Farm Bureau, FFA, Cooperative extension, grower associations, 4-H, and others to promote farms and stay updated on community activities.

### *Promote and support direct-to-consumer outlets*

Direct markets provide the highest return to farmers in comparison to other markets. They provide an easy entry point for farmers new to marketing because of the minimal cost required for entry, and in providing a direct connection between consumer and farmer, they cultivate customer loyalty and advocacy for local farms and food. ASAP surveys of farmers market shoppers demonstrate that markets are supported by an expanding base of repeat customers who shop there not just for food but for the experience of interacting directly with the people that grow their food and for a sense of community. Between 2002 and 2010, the number of farmers markets and CSAs in the Southern Appalachian region has increased 80 percent. This growth echoes the data from the 2007 Agricultural Census, which shows a 49 percent increase in direct food sales from \$812 million in 2002 to \$1.2 billion in 2007.

**Next Steps:** Provide support to direct-to-consumer markets in the Clay County region. Support might be in the form of the promotion of existing direct-to-consumer outlets—farmers markets, CSAs, on-farm stores and stands; assistance with the expansion of outlets; and/or workshops and training for farmers on relevant topics—salesmanship and display, best food safety practices, food regulation, marketing and promotion, etc. Utilize the resources and trainings ASAP offers to farmers selling direct to consumers. ASAP’s annual Marketing Conference offers a direct marketing track with resources and tools for farmers operating CSAs and selling at farmers

markets. ASAP is also developing a CSA Toolkit and Farmers Market Toolkit, which will be available to download from the website ([www.asapconnections.org](http://www.asapconnections.org)).

*Develop a local branding label*

ASAP's consumer research in Western North Carolina shows the importance of local labeling. Labeling is crucial because it allows consumers to act on their preference for locally-grown food and it allows any price premiums associated with local food to accrue to producers. Local branding is a way to add value to local farm products and provide farmers with a means to increase their marketing power. ASAP's Appalachian Grown™ regional branding and certification program provides farms in the Southern Appalachians with a means to enhance the visibility of their products in the region's local markets and accordingly, their ability to compete more effectively. ASAP's Appalachian Grown region includes Clay County as well as all of the counties in the six-county area.

Next Steps: Utilize ASAP's existing Appalachian Grown regional branding program. Work with ASAP staff to develop an Appalachian Grown – Clay County or Far West co-brand. In 2006, ASAP launched the Appalachian Grown branding program to identify products from local farms and to protect the integrity of the local market. Since 2007 (the first full year of the program) participation has increased by over 60 percent. To date, 500 farms and over 200 individual businesses are certified and participating in the program. Sales of Appalachian Grown certified products increased from \$15 million in 2007 to over \$45 million in 2010. An Appalachian Grown – Clay County or Far West co-brand will leverage the resources of ASAP's existing program and increase the visibility and competitiveness of farm products grown in the Clay County region. ASAP's extensive network of certified retailers have the potential to leverage new markets.

*Dedicate staffing time toward the development of local markets for Clay County farms*

The development of Clay County's and the far west's local food and farm economy will require dedicated time and resources. Establish dedicated staff time or personnel focused on developing local markets and furthering the recommendations in this assessment as well the Clay County Farmland Preservation Plan.

Next steps: Develop the requirements and duties of a paid staff position. Similar positions in other counties in the region are often housed within the county Economic Development office. Dedicating staff time in the Economic Development office recognizes the importance of farms and local food to the economy of the county. Search for funding for initial support of staff time from granters such as the GoldenLEAF Foundation and the WNC Community Foundation.

*Provide training and support to Clay County farmers*

To access the opportunities in local markets successfully, farmers need a combination of skills, resources, and support in multiple areas. Farmers need training and expertise in business and market planning to effectively diversify their farm businesses and market their farm products locally. Farmers need to understand industry standards for different types of local market outlets: packaging, labeling, food safety requirements, distribution, quality standards, traceback

standards, etc. Furthermore, farmers need assistance determining what types of market outlets are a good match for the capacity of their farm. For retail and institutional outlets in particular, farmers need assistance developing relationships with buyers and information specific to market requirements and desires. This combination of assistance provides farmers with the support needed to make decisions and implement practices based on careful planning. Decisions based in planning reduce risk and increase the likelihood that strategies are successful. Successful farmers attract new farmers into the market outlets.

**Next Steps:** Provide Clay County farmers with training and technical assistance opportunities. Access existing resources and opportunities in the region. Partner with local community colleges, Cooperative Extension, and other community organizations and agencies to conduct and support training and technical assistance workshops. ASAP's annual Marketing Conference includes workshops on key risk management strategies in retail, wholesale, and direct to consumer market outlets, QuickBooks and farm financial recordkeeping for farms, food safety, farm business planning, and more.

*Highlight and develop connections between farms and restaurants*

When diners learn that food on their plates comes from a nearby place—a farm and a farmer with a name and a face—it gives the meal and the visit more meaning. The Far West has a growing independent restaurant sector and increasing interest by chefs and restaurant owners in sourcing fresh, local food. The Clay County consumer survey shows that local food is a very important consideration when choosing a restaurant.

**Next Steps:** Efforts focused on deepening connections between local farms and restaurants might include a farm to chef promotional campaign using ASAP's Appalachian Grown branding and Get Local marketing materials, organizing farm fieldtrips for chefs and foodservice and farmer-buyer meetings, and expanding ASAP's Mixing Bowl farm-to-chef trade directory to include Clay County farms and businesses. The combination of these activities will simultaneously connect local farms to this market sector, increase the visibility of local food in the community and build awareness, and provide farmers and chefs with practical information about how to build business relationships that last.

ASAP's Get Local program highlights one seasonally available product a month. Participating restaurants feature that product in seasonal dishes. The program provides a way to promote restaurants already supporting local farms and a means for restaurants interested in sourcing local an easy way to begin. Farm fieldtrips provide chefs with opportunities to experience Clay County agriculture firsthand and farms with opportunities to develop new business relationships. Farmer-buyers meetings also create a venue for chefs and farmers to develop relationships and discuss specific market and farm needs and requirements. The Mixing Bowl, a farm to business trade directory, provides a practical means for farms to market their products and for restaurants to source local ingredients and advertise the local products they are interested in finding. Furthermore, the directory provides farmers and food businesses with the means to post business requirements and mitigate potential misunderstandings and frustrations. For example, chefs post product volume, delivery, and the vendor approval process; farmers post the minimum order required, their distribution area, and production practices.

*Explore the viability of larger scale retail and institutional market outlets*

As a market venue for farmers, larger retail and institutional markets should be part of an overall strategy of market diversification and growth. Large markets can not only be difficult for farms to access because of specific institutional and infrastructure requirements, they can be less profitable to individual farms because often there is a middleman involved.

There is a practical limit to how much food can be sold through direct market outlets; the largest share of consumers' food spending will continue to be in grocery stores. Western North Carolina has several grocery store chains with local food purchasing programs. Equipped with the knowledge of market standards and desires, these larger scale outlets provide Clay County farms with potential marketing options.

Clay County has an Ingles store, one store in the Ingles Market chain that is headquartered in Buncombe County NC. Ingles was not included in the business survey because ASAP is already aware of their local purchasing policies and requirements. There are opportunities for Clay County farmers with the Clay County Ingles store. If a farmer is identified who wants to sell to Ingles and can meet the Ingles requirements, ASAP can make introductions and provide promotional materials.

With the growth of the local food movement, there has also been increasing interest by institutions, schools, hospitals, and colleges, in providing fresh, local options to students, staff, patients, and employees. Institutional market settings like schools and hospitals provide opportunities to highlight the connections between food, food access, and health; nurture healthy eating habits in kids and families; and over the long term build support and appreciation for local farms and food. Moreover, schools and hospitals, because they reach broad constituencies and reach across socioeconomic and other cultural lines, provide opportunities to increase the distribution of fresh, local food to vulnerable children and families. Public schools in particular provide farms in rural settings with market options. Rural areas often lack sufficient market outlets but school systems exist in every county and have the potential to provide a steady market for farmers. All school districts in North Carolina are eligible to participate in the North Carolina Department of Agriculture's Farm to School program, which makes this statewide program the most accessible option for many county school districts. Information on the program and its requirements can be found on the NCDA Farm to School program website: <http://www.ncfarmtoschool.com/index.htm>.

**Next Steps:** Facilitate linkages between Clay County farmers and targeted buyers—retailers, restaurants, summer camps, schools, colleges, hospitals. Outreach to buyers across market segments; begin to develop relationship with them and assess market desires and industry requirements for things like packaging and labeling, food safety certification, quality standards and traceback, product quantities and distribution. Meet with local farmers to assess the capacity of their operations and to direct them to suitable market outlets, and prepare them to meet industry standards. Utilize ASAP's farm outreach services that help to connect farms and markets. Work with retailers and institutions to identify what they already purchase from local farms. Develop targeted outreach and promotional efforts geared to each group of buyers, including models of success that can be replicated by different types of organizations.

The knowledge that you develop about the county's food system and the trust and relationships that you develop with buyers and farmers will play a crucial role in the region as demand and awareness continue to increase with local food campaign activities. Buyers will look to you for help finding suitable and reliable sources of local product.

*Promote positive experiences around local food*

Taking a longer view of the development of the local food system, implement strategies in local food campaign activities in Clay County that promote positive experiences with local food and farms. Farm tours, food and farm festivals, meet the farm events, food tastings, farm to school and hospital programs provide participants with the means to engage with local farms in meaningful ways, cultivating an appreciation for this natural resource. Furthermore, research from the health sciences demonstrates that food habits and preferences are directly impacted by positive and negative experiences. Preferences for food develop in positive contexts and aversions to foods develop in negative contexts. Following, children and adults that have positive experiences with local farms and food develop an appreciation for local food and farms.

**Next Steps:** Organize food and farm events around Clay County farms like an annual farm tour or a downtown festival celebrating local farms and food. Organize special events at farmers markets that celebrate seasonal harvests and offer music and kids activities. Support and promote activities in hospital and schools settings that emphasize the experiential aspects of local farms and food: farm field trips, cooking demonstrations with seasonal ingredients, tastings, meet the farmer events, school gardens, etc.

These types of hands-on activities engage participants positively with local agriculture. Kids and adults participate in planting and harvesting activities, learn to cook with seasonal ingredients, learn about the cycles of agriculture and the seasonality of crops, meet farmers growing food in their communities, and try new fruits and vegetables. These types of positive experiences influence the formation of eating habits and preferences, create healthier individuals and communities, and develop local food and farm advocates.

*Promote Clay County food and farms to tourists*

Tourism is a major economic driver in Clay County and generated an impact of \$11.23 million in 2010.<sup>36</sup> While promoting experiences that bring agriculture and tourism together—agritourism—is not a new idea, an expanded notion of agritourism includes experiences with the region's agriculture that happen off-farm as well as on-farm. Off-farm connections might involve eating at a restaurant or staying at a Bed & Breakfast that features locally-grown food, attending a festival or event celebrating regional cuisine, going to a farmers market, or traveling a scenic trail through the region's farmland. These kinds of experiences are important because, while not all farms can welcome tourists to their farm for events and activities, all farms can benefit from the visibility and excitement generated.

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<sup>36</sup> North Carolina Department of Commerce 2011 Travel Economic Impact Model.  
<http://www.nccommerce.com/tourism/research/economic-impact/teim>. (accessed September 2011).

**Next Steps:** To align tourism and agriculture a first step might be to conduct a “needs assessment” with tourism authorities and economic development officials in the Clay County area to gauge interest and assess opportunities. What do they need to promote local farms and food? What tools, resources, and support would be most useful to them? What ideas do they have to highlight the farms and distinct food ways in their communities? This information will help you to focus your efforts and resources and develop a strategy grounded in industry feedback. Tourism and agriculture activities might include an outreach campaign to tourism authorities about existing resources (e.g. the Local Food Guide) or the re-packaging of existing resources in a more tourism friendly format (e.g., visitor center rack cards) or the creation of new promotional tools and resources (e.g. materials that are specific to Clay County, food and farm trip planners and maps, etc). ASAP’s *Farm Promotion and Support: Ideas and Tools for Economic Development and Tourism Development Authorities* is a good resource to get started thinking about accessing and building the potential of farm tourism in the area. Access this document at <http://www.asapconnections.org/farmpromotionandsupport.pdf>

*Tap into existing resources in your region*

The recommendations in this report cite many ASAP resources and tools available to Clay County farmers. This recommendation summarizes these resources and lists additional resources available to Clay County farms. This list is not exhaustive; investigate other types of assistance and resources available through farm support services and other organizations in the region.

- ASAP’s Local Food Guide and Mixing Bowl: Encourage more farms and businesses in Clay County to get listed in the Local Food Guide. Basic farm listings are free and business listings are very affordable. Registering for the guide also provides farms with the ability to list their business in the Mixing Bowl, a farm to business trade directory.
- Appalachian Grown: Utilize ASAP’s Appalachian Grown regional certification and branding program. The logo provides farms with a way to distinguish their products in the marketplace and businesses with a way to promote their support of the region’s farms. ASAP has stock marketing materials available (bags, twist ties, case stickers, etc.) and also creates custom materials (farm profiles, table tents, posters, etc.).
- Beginning Farmer Program: ASAP in collaboration with Mountain BizWorks and Organic Growers School offers beginning farmers with an array of training and technical assistance on business and market planning, farm financial recordkeeping, farm management skills, and sustainable production techniques. Visit [http://www.asapconnections.org/beginning\\_farmers.html](http://www.asapconnections.org/beginning_farmers.html) for more information about training and resources available through this program.
- Marketing Opportunities for Farmers Conference: Annually ASAP hosts a marketing conference for farmers at Warren Wilson College in Swannanoa. The conference provides farmers with a full day of workshops on market and business resources.
  - ASAP’s Cost Share Program: Currently ASAP, through the support of the GoldenLEAF Foundation and the North Carolina Tobacco Trust Fund Commission, has funds available for farmers and farmer groups to use in the promotion of local food and farm products. Contact ASAP for information about how to participate in this program or visit <http://www.asapconnections.org/agmaterials.html>.