



The Charlottesville Region Food System: A Preliminary Assessment

University of Virginia
School of Architecture
Department of Urban and Environmental Planning

PLAC 569 Community Food Systems
Student Report: Spring 2006



In a 1785 letter to Abigail Adams, Thomas Jefferson commented on the immense importance of food to a society's well being, writing, "I fancy it must be the quantity of animal food eaten by the English which renders their character insusceptible of civilization. I suspect it is in their kitchens and not in their churches that their reformation must be worked." While we do not necessarily share Jefferson's scorn and distaste for the English, his words have great relevance even today. A large part of a society's viability and health are determined by how and what its citizens eat and, quite truthfully, we Americans are struggling. When so much of the population suffers from rising incidences of heart disease, obesity, and Type II diabetes, it makes perfect sense that our next major revolution should be fought not on the sand-swept planes of Iraq, but much closer to home, in our own kitchens.

Table of Contents

Introduction	5
Beginning Assumptions.....	5
The Charlottesville Region's Foodshed.....	6
Preliminary Boundaries	6
Physical Attributes.....	7
Human Characteristics	8
The Stakeholders.....	9
Farmers	9
Specialty Producers	9
Government	10
Distributors.....	10
Food Production in the Region.....	12
Methodology	12
Producer Surveys.....	13
Fruits.....	13
Vegetables	14
Meat and Dairy.....	14
Mills.....	15
Community Supported Agriculture.....	16
Examples of Model Producers.....	17
Food Distribution in the Region	18
Methodology/Summary	18
Major Distributors.....	18
Grocery Stores.....	19
Restaurants.....	21
Institutions.....	23
Food Banks and Support Agencies	23
Food Equity in the Region	28
Food Waste in the Region.....	31
Rivanna Solid Waste Authority: Former Compost Facility.....	31
Panorama Farms	32
University of Virginia and Food Waste.....	32
Food Recovery in the Region: Information and Possibilities	33
Businesses and Corporations.....	33
Food Service Professionals.....	33
Non-Profit Organizations	33
Youth Service Groups and Volunteer Organizations	34
Individual Citizens	34
Assets of the Charlottesville Region	34
Barriers and Opportunities of the Charlottesville Region	35
Food Production.....	35
Food Processing and Distribution.....	36
Food Consumption and Waste	37
Food Policies and Regulations	38
Next Steps	39
Contacts.....	40
Class Professors	40
Class Students.....	40
Producers Surveyed.....	40

May 8 th Meeting Attendees.....	42
References Cited	44
Additional Reading.....	44
Other Resources.....	44
Regional/State Groups	44
Groups Providing Guidance and Reference Material.....	45
Groups Working on Specific Community Food Systems.....	45

Introduction

Community food security is a condition in which all community residents are able to obtain a safe, equally accessible, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice (Pothukuchi 2002). A secure food system is an essential infrastructural element, as important as water and sewer systems, electricity, roads, schools, and additional infrastructures already established by convention. *Does the Charlottesville community have a secure food system?* Most people surveyed during this process say no.

Food systems, simply conceived, are the conglomerates of processes involved in transferring goods to consumers. Intermediary influences include policy and regulations, economic fluctuations, environmental conditions, and international relations, among others. The susceptibility of a community's food system thus lies in its flexibility and resilience to such influences. Developing resilience involves strengthening and altering existing systems to reduce distances between production and consumption, ensure nutritional and equitable distribution, preserve farmland, and encourage innovation within all practices involved. Food security is intertwined with the economy, ecology, and social aspects of a region, and therefore solutions to community problems will need to be researched and implemented with systems thinking in mind.

In an effort to initiate dialogue within the community as well as to guide subsequent endeavors, this report outlines a preliminary assessment of the Charlottesville region's food production and distribution systems. Created under the direction of Timothy Beatley, Teresa Heinz Professor of Sustainable Communities, Department of Urban and Environmental Planning, and Tanya Denckla Cobb, Senior Associate, Institute for Environmental Negotiation, this assessment is the product of their students' exploration into the field of community food systems planning.

Beginning Assumptions

The following condensed list describes the class' initial perceptions of the American food system. These assumptions acted as the starting point of the community-based assessment and the beginning of a longer-term discourse among residents of the Charlottesville region.

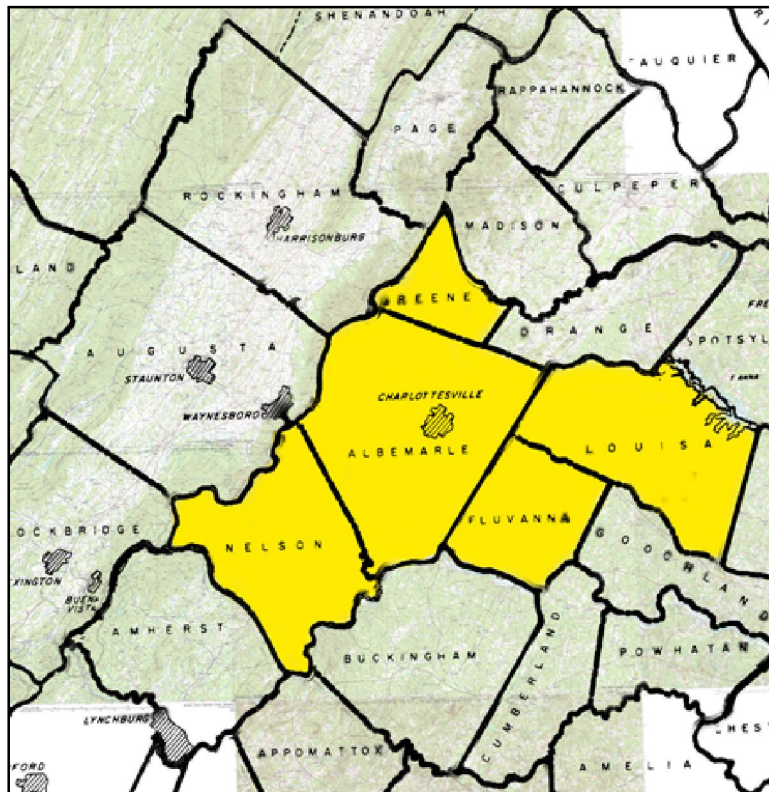
- *There is a major disconnect between people and food.* When we go into grocery stores, it is rare if we are told which country our food is coming from; the path it takes from producer to consumer is usually not discussed.
- *The costs associated with food production and distribution are mostly externalized or hidden.* Few consumers are aware of the negative effects generated by the use of antibiotics and pesticides, large-scale monoculture, and unsustainable land use practices. Even less of us consider the connection between food distribution and fossil fuel dependency; the more food travels, the more reliant we are upon oil and the more susceptible we are to fluctuations in its supply.
- *Food—even that which is grown locally—is transported great distances.* Much of the food that is grown within our own foodshed must be shipped across the country to distribution centers before it makes it back to our supermarket shelves.
- *When non-local products are purchased, those dollars leave the community.* As purchasers, we have a choice. Just as when we vote in an election, we are choosing which

candidate to support, when we buy food, we are choosing to reinvest in the local economy and population.

- *Certain laws and regulations are not only illogical but destructive to the community.* Zoning laws separate out agricultural operations from woodlots, food production from urban neighborhoods, even orchards from street trees. What is more, due to the plethora of requirements that are imposed upon producers of food (regardless of their size), small farmers have a difficult time competing with large agri-businesses.
- *The necessary resources already exist for a collaborative progression towards increasingly sustainable practices and a more food-secure community.*

The Charlottesville Region's Foodshed

Preliminary Boundaries



The term “foodshed”, as with the concept of a watershed, can be used to describe the area that encompasses the flow of food from the area in which it was grown to the place where it is consumed. In thinking about the size of the foodshed for the Charlottesville area, we considered a number of established boundaries, including counties within the Thomas Jefferson Planning District (Albemarle, Fluvanna, Greene, Louisa, Nelson, and the City of Charlottesville)

as well as watershed boundaries, physiological land boundaries, and political boundaries. Although our assessment covers only the counties within the Thomas Jefferson Planning

District Commission's (TJPDC) jurisdiction, we speculate that a more appropriate foodshed covers a wider range.

Both Orange and Buckingham Counties touch three of the TJPDC counties and are within 25 miles of Charlottesville—a distance we considered appropriate for initial attempts at strengthening local food efforts. Madison County is additionally within the 25-mile range, and thus should be considered a part of the “region.” The Shenandoah Valley, an enormous agricultural engine and home to the most large-scale agri-business in the area, deserves recognition for its reliable supply; the counties of Augusta, Rockingham, and Page are therefore additionally included, and are well within a 50-mile range of Charlottesville.

While there are other counties within Charlottesville's 50-mile radius, they are

culturally and geographically more strongly linked to other major cities and metropolitan regions in Virginia. Examples include Culpeper, Rockbridge, Cumberland, and Powhattan, which are respectively aligned with the cities of Fredericksburg, Roanoke, Lynchburg, and Richmond.

Please note that while these 11 counties constitute the core of our region, their periphery should not be understood as a set boundary, but rather as a logical point of departure for this study.

Physical Attributes

The region's farmers depend on four major infrastructural elements of the land: mountains, water, forests, and highways. Figures one through three depict these regional characteristics as they exist today.

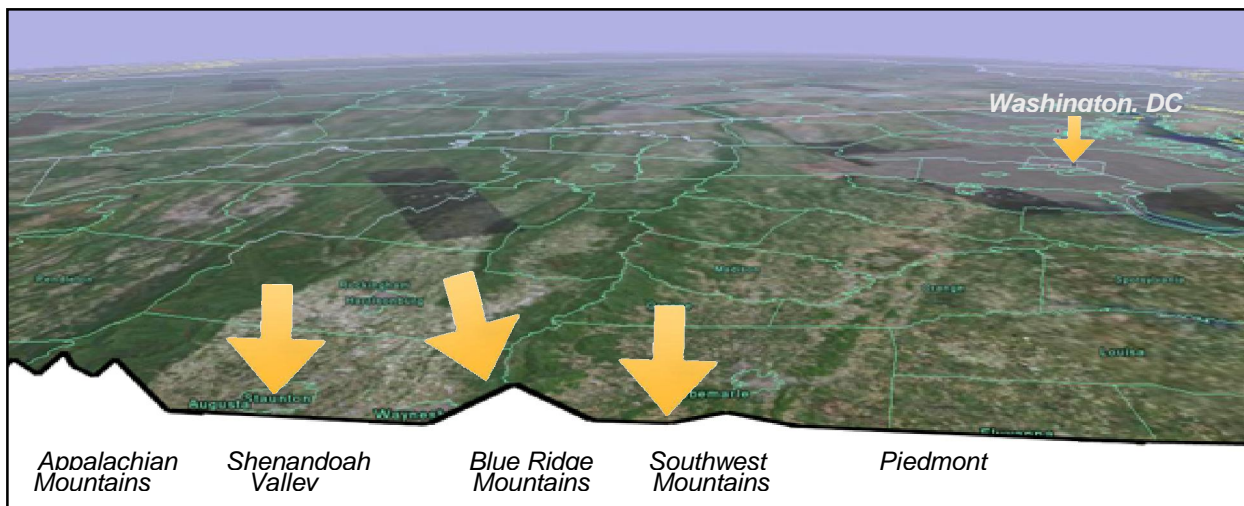


Figure 1: Mountains

The steep slopes of local mountains greatly affect our ability to produce food in this region.

Figure 2: Water

The region is rife with river systems. Farms are often located in floodplain areas, as they contain fertile soil. However, as development continues, the streams that provide clean water to these zones of food production are increasingly in danger of becoming eroded, filled with sediment, and polluted.

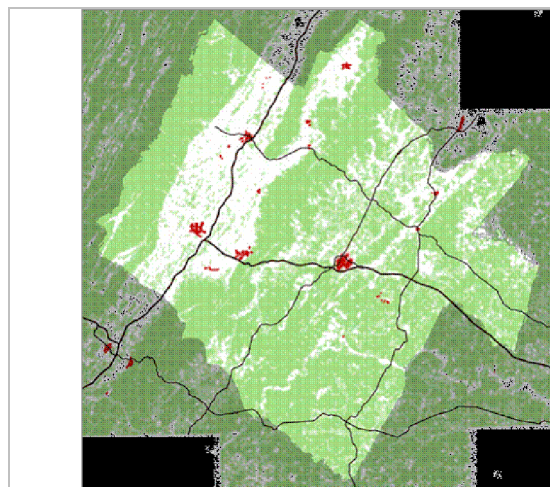
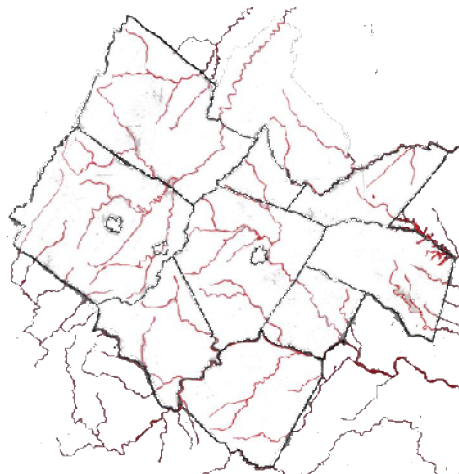


Figure 3: Forests and Highways

All that is green is representative of space that has substantial tree coverage. White is open space; it is reasonable to assume that a high percentage of this area is farmland. The diagonals that emerge from the combination of green and white space are a result of the mountain ranges that occupy the region. The construction of highways has avoided these natural barriers in favor of flatter, more easily developed land.

Human Characteristics

County Census Data

	Charlottesville	Albemarle	Nelson	Fluvanna	Greene	Louisa
Population, 2000	45,049	79,236	14,445	20,047	15,244	25,627
Population, percent change 1990-2000	11.30%	16.20%	13.00%	61.30%	48.00%	26.10%
Land Area (square miles)	10	723	472	287	157	497
Median Household Income	\$31,007	\$50,749	\$36,769	\$46,372	\$45,931	\$39,402
Persons (per square mile)	4,389.70	109.70	30.60	69.80	97.40	51.50
Foreign Born Persons (percent)	6.90%	7.30%	1.90%	2.30%	1.60%	1.30%

	Augusta	Buckingham	Madison	Orange	Page	Rockingham
Population, 2000	65,615	15,623	12,520	25,881	23,177	67,725
Population, percent change 1990-2000	20.30%	21.40%	4.80%	20.80%	6.90%	17.80%
Land Area (square miles)	970	581	321	342	311	851
Median Household Income	\$43,045	\$29,882	\$39,856	\$42,889	\$33,359	\$40,748
Persons (per square mile)	67.60	26.90	39.00	75.70	74.50	79.60
Foreign Born Persons (percent)	1.40%	0.80%	2.20%	1.90%	1.50%	3.30%

The Stakeholders

A wide range of persons, institutions, and organizations are stakeholders in the development of a secure food system for the Charlottesville region. Together, they may establish integrated approaches to food and farming issues through the creation of cooperatives, marketing programs, policy councils, and the adoption of further studies.

Farmers

The farming community is an integral component of our food system. Important groups within this subset of individuals include:

- *the Farm Bureau*. There is one state-wide Farm Bureau and many county Farm Bureaus, both of which provide important services and networks for farmers. Though we were not able to obtain membership lists for this project, several leaders within the Farm Bureau have expressed interest in community food systems and were very helpful during the assessment; their willing involvement suggests amenability to further engagement with interested parties.
- *the Virginia Association for Biological Farming*. This group prides itself on its ability to bring farmers together. Perhaps for this reason, VABF shared information on its members to our class, thus providing us with the majority of our interviewees. We found that most of the younger farmers in the region who are just starting their careers are members of this organization.

Specialty Producers

Specialty producers provide products that are unique to location. Their involvement in further collaborative efforts will ensure that the Charlottesville region retains native specialties in its food system and that small growers continue to be effective in their endeavors. Examples of such producers are:

- *Edible Landscaping* (Afton County): diverse food-producing plants
- *Forest Flavors* (Albemarle County): local mushrooms
[Pictured at the Charlottesville Farmer's Market]
- *Southern Exposure Seed Exchange* (Louisa County): heirloom and organic seeds
- *Twin Oaks* (Louisa County): tempeh and tofu.



Government

Local

City of Charlottesville, which includes: the Environmental Office, the Department of Parks and Recreation (which is in charge of the city's community gardens), and schools.

County of Albemarle

County of Fluvanna

County of Greene

County of Louisa

County of Nelson

Rivanna Water and Sewer Authority, which manages reservoirs and water supply within the City of Charlottesville and Albemarle County. The Authority sells compost from its Wastewater Treatment Plant.

Rivanna Solid Waste Authority, which accepts, recycles, and transfers waste from its site.

Regional

Thomas Jefferson Planning District Commission, which includes: the City of Charlottesville and the Counties of Albemarle, Fluvanna, Greene, Louisa, and Nelson.

Thomas Jefferson Soil and Water Conservation District, which includes: the City of Charlottesville (a member as of 2006) and the Counties of Albemarle, Fluvanna, Louisa and Nelson.

State

Virginia Department of Agriculture and Consumer Services

Virginia Department of Conservation and Natural Resources

Virginia Department of Environmental Quality, which works on agricultural waste products such as nutrient discharge.

Virginia Department of Health, whose Nutrition Services Team works on the consumption of fruits and vegetables as well as with the rising rates of obesity within the state.

Federal

Virginia Cooperative Extension Service. VCE is an educational outreach program of Virginia's land grant universities, including both Virginia State University and Virginia Tech. VCE is also a part of the national Cooperative State Research, Education, and Extension Service, an agency of the United States Department of Agriculture.

Farm Service Agency. Also a part of the United States Department of Agriculture, the Farm Service Agency gathers data and provides an Agricultural Mediation Program.

Distributors

Major Suppliers

Aramark

Cavalier Produce

Kathy's Produce

Standard Produce Company

Sysco

Southern Select

Grocery Stores, Corner Stores, and Convenience Stores **Restaurants (too many to list here)**

Institutions and Schools

Institute of Textile Technology
International Beauty School
Martha Jefferson Hospital
Mary Baldwin College
Piedmont Virginia Community College
University of Virginia
University of Virginia Hospital
Virginia School of Massage
Westminster Canterbury of the Blue Ridge

Childcare Centers and Preschools

(A comprehensive list only for the City of Charlottesville and Albemarle County.)

Barrett Early Learning Center
Bright Beginnings Preschool
Chancellor Street Preschool Co-Operative
Chestnut Grove Baptist Preschool
Congregation Beth Israel Preschool
Covesville Child Development Center
First United Methodist Preschool
Head Start
The International School of Charlottesville
Molly Michie Preschool
Northside Ministries Daycare and Preschool
Old Dominion Day School
Park Street Christian Preschool
Piedmont Family YMCA Child Care
St. Mark Preschool
University Montessori School
University of Virginia Child Development Center

Public Schools (K-12)

Albemarle County Public Schools
Charlottesville City Public Schools
Charlottesville/Albemarle Technical Education Center
Fluvanna County Public Schools
Greene County Public Schools
Information Technology Academy
Louisa County Public Schools
Nelson County Public Schools

Private Schools

(A comprehensive list only for the City of Charlottesville and Albemarle County.)

Blue Ridge School
Charlottesville Catholic School
Charlottesville Community Jewish Day School
Charlottesville Waldorf School
Covenant School
Fishburne Military School
Fork Union Military Academy
Free Union Country School

Friendship Sudbury School
Lafayette School and Treatment Center
Living Education Center for Ecology and the Arts
Miller School
Montessori Pantops Mountain Community School
Northside Ministries Academic Schools
Oakland School
Open Door Christian School
Peabody School
Renaissance School
St. Anne's-Belfield
St. Bede's Latin School
Tandem Friends School
Tuckahoe School
Village School

Food Banks and Nonprofit Agencies

AIDS/HIV Services Group
Blue Ridge Area Food Bank
Charlottesville Community Design Center
Churches
Community Meals on Wheels
Emergency Food Bank
Food Closets
Jefferson Area Board of Aging
Master Gardeners
On Our Own of Charlottesville
Piedmont Housing Alliance
Quality Community Council
Salvation Army
Thomas Jefferson Area Food Bank

Consumers

Everyone who Eats!

Food Production in the Region

The vast majority of farms in Charlottesville and its surrounding counties only produce commodities that are meant for cattle and horse consumption. These farms are important to our region's ecological system, for they preserve valuable agricultural lands and can provide important watershed buffers.

Nonetheless, the following sections focus solely upon that small portion of our regional food production that is intended for human consumption.

Methodology

The goal of the production team was to locate and research all of the food sources and food production methods within this region. However, our mission quickly changed as we discovered that each of the counties within this area contains upwards of 500 farms, and that no source exists to define exactly what is produced (if anything) at each farm. We therefore concentrated on known sources of information with the hope that as this study continues, additional valuable information will be provided through the participation of a larger number of stakeholders.

Dividing the six jurisdictions (one city and five counties) among the members of our task force, we grouped food production into what we believed to be the five predominant categories: fruits, vegetables, meat, dairy, and other. Within each jurisdiction, group members gathered information for each of these categories. Interviews were then conducted with farm owners, managers, Farm Bureau representatives, and Agricultural Extension Agent representatives whenever possible. Whether done in person, over the telephone, or via electronic mail, surveys focused on type of food being produced or processed, farming methods, incentives for using/not using certain procedures, and any barriers that are frequently encountered. The surveys provided a myriad of information, and in general, farmers were very helpful during this process. Due to time constraints, however, the number of interviews we conducted was limited to three from each of the five categories of food production.

The contact information for farmers and other sources were primarily obtained from the Virginia Association for Biological Farming membership list, Virginia Department of Agriculture and Consumer Services website (though very outdated), and farmer's market contributor lists/visits. For this reason, conventional and large-scale farms are largely underrepresented within the surveys. Secondary sources of information included Farm Bureau representatives, extension agents, word of mouth, and other websites such as localharvest.org. We also asked distributors of local products from where they received their food. A database has been developed from these sources.

Producer Surveys

County	Surveys	Use Sustainable Methods (organic, integrated pest management, etc.)	Grows a Combination of Vegetables with Other Production
Albemarle	16	7	6
Charlottesville (City)	1	1	0
Fluvanna	3	3	1
Greene	2	1	1
Louisa	4	4	1
Nelson	7	4	2
TOTAL	33	20	11

Fruits

We reached four of the 12 orchards in our designated area. From our interviews, we found that only a few have been established in the Charlottesville region for very long. Many of the older farmers worked in other parts of the country before starting their local operations. A number of the newer farmers are ones that decided to pursue the profession late in life, thus purchasing land and beginning their operations from scratch. Regardless, family units have proven to be essential to the management of many of the region's small-scale orchards. The longstanding Dickie Brother's Orchard is only one example of a local farm that has a history rooted in familial involvement.

Big orchards, on the other hand, require hired staff to assist with maintenance and picking during key seasons. On average, these orchards are run on a larger scale than vegetable farms. In mountainous areas, it is common for orchards (particularly ones that grow apples) to be combined with cattle farming to maximize land use. Small combination orchards harvest roughly ten acres while the larger orchards harvest over 100 acres and supply commercial buyers. Fortunately, products such as apples require little processing—only the most basic packaging is usually made mandatory. However, even the big orchards sell at local farmer's markets (where there is no packaging at all), mostly for publicity.

Orchards in our region commonly rely on websites for promotion and information distribution. They do not receive government subsidies and are not connected with other orchards through organizations. One of the large orchards, Mountain Cove, has just closed this year and is leasing land to an agri-business due to financial difficulties. The other large orchard in the Charlottesville area has been running for over 200 years and is still successful. Overall, orchards appear to be less economically challenged than other types of food producing farms.

However, problems do exist for this type of farmer when it comes to the employment of sustainable practices. According to the majority of farmers, apple orchards “cannot” be organic because the wet and warm climate of the area fosters pests and fungus. Instead, they typically employ methods such as integrated pest management.

Vegetables

The team collectively interviewed 21 vegetable farms, gardens, and collectives. Most of these locations operate on a smaller scale, often cultivating less than ten acres. Depending on their goals, farmers grow greens, herbs, root vegetables, squash, tomatoes, and more. A few of the farmers grow heirloom varieties or specialty vegetables. Also, flower gardens as well as small fruit trees and bushes are popular components of these operations.

Almost all of the farmers cultivate land with their partners and/or the help of anyone else living on the property. About half cited the seasonal hiring of one worker or intern. Only two required more than three workers.

Most vegetables are grown using organic or sustainable methods, though only one producer is currently certified through the United States Department of Agriculture's (USDA) National Organic Program. The reasons often cited for lack of certification include paperwork, disagreement with the regulations as currently written, lack of confidence in the system, and required costs. Consumers of local produce, however, recognize the growers' sustainable methods and are for the most part indifferent to the USDA certificate; one farmer stated, “My customers certify me.”

Of the farmers who sell their produce, such relationships with customers are crucial. Because very little processing or packaging of fresh produce is necessary, word of mouth constitutes the only form of advertisement or marketing that is done. Thus, due to the fact that most producers are financially reliant upon the consumer base of farmer's markets, they are also dependent upon the recommendations of these customers to maintain and expand their clientele.

Though a vast majority of farmers sell only at farmer's markets within the region (and many sell to more than one), a few have also managed to become direct suppliers to restaurants. Two more have cited experience with farm-to-school programs. Thus, only one-fifth of the vegetable growers we interviewed participate in any form of established network.

Rather, these producers tend to form especially close communities amongst themselves. In order to gain pertinent information that can then be shared between them, most are members of organizations such as the American Farmland Trust, Farm Bureau, Virginia Association for Biological Farming, or the Virginia Independent Consumers and Farmers Association.

None of the farmers receive government subsidies and two have conservation easements.

Meat and Dairy

We received responses from seven farmers in our area that participate in the production of meat, eggs, and/or dairy. The age of the farmers ranges from 45 to approximately 85. Most of

these cultivators are unsure if their farm will be passed along to their children upon retirement (due to their children's young ages) or do not expect the farm to be passed along to future generations at all. At this point in time, only two of these seven are second-generation farms.

The size of the farms ranges from 24 to 450 acres. Within these spaces, the types of meat and dairy produced are diverse: cattle, chicken, duck, emu, goat, sheep, and turkey can all be found at regional farms. Most of the livestock kept is pasture-raised. The larger operations typically use local grain that has not been genetically modified. One farmer in Louisa County is cross breeding Angus beef cows with a compatible French breed, Torrentes, which he believes improves the benefit of grass feeding to the animals. All beef in the Charlottesville region must be sent to slaughter, often via cattle auctions at various places in the area.

Dairy tends to come from the milk of either cows or goats. However, in recent years, specialty producers of goat cheese have encountered many barriers in the business. Due to newly passed state legislation that requires regulated pasteurization regardless of the farm's size, one farmer has abandoned his practice altogether and another subsists solely on donations. For the former producer, organic, un-pasteurized sorbet is now the only good he sells.

Such products may be distributed to small grocery stores such as Foods of All Nations or Integral Yoga, sold at local farmer's markets, or, as in the case of Greene County's Farm Colony, the products may simply be bartered between community members.

Furthermore, depending upon which animal(s) a farmer owns and which product(s) he delivers, many organizations claim the membership of our local farming residents. Some of these include: the Farm Bureau, Dairy Farmers of America, Rural Virginia, St. Croix Sheep, the Virginia Meat and Goat Association, Virginia Women in Agriculture, and the Virginia Independent Consumers and Farmers Association.

A number of producers even have their land placed within designated agricultural/forestal districts, Conservation Farms, the Heritage Farm Program, or have received easements from the Virginia Outdoors Foundation.

Mills

Farmland in the region is undoubtedly being lost at a rapid pace. The abandonment and destruction of mills, however, remains a much lesser known phenomenon. In the nineteenth century, there were easily over 100 mills—possibly as many as 200—operating in the City of Charlottesville and its surrounding five-county region. Most were flour/grist and saw mills for lumbering; some were even known for their generation of electricity. Regardless of their function, however, the vast majority of the region's mills were geared to support small rural communities.

Though many reasons exist for the ruin of these processing plants, the Civil War acted as an early catalyst. During rampages through Virginian territory, many mills were burned down by prominent generals of the time. Later on, nature took over as the culprit for their demise. As a result of mills having usually been constructed upon waterways, floods have historically been the predominant natural means of their destruction. Today, there are approximately 20 mills still standing, though only a few remain in operation.

Community Supported Agriculture

Several farms in the region are involved in Community Supported Agriculture (CSA). Though six cater specifically to residents of Charlottesville, they also serve other counties and localities in the region. As with other forms of production, diversity is apparent. These CSA farms include:

- Best of What's Around at Maple Hill Farm (Scottsville, Albemarle County). This CSA includes full shares, half shares, and working shares. This CSA filled up early. The farm also operates a farm store.
- Innisfree (Albemarle County). This farm is in a community for adults with disabilities. They offer a small CSA.
- Majesty Farm (Albemarle County). Provides their CSA supporters with fresh raw dairy products and soaps made from chemical-free fats.
- Ploughshare Farm Food Guild (Louisa County). This CSA includes vegetables, fruits, and options for organic eggs and free-range chickens.
- Horse and Buggy Produce. The food of this CSA is produced by Mennonite Farmers in the Shenandoah Valley and brought to Charlottesville. In addition to the CSA, local drop-off sites sell food. At present they have about 215 subscribers and are aiming to get an additional 50 each week during June--then in July they hope to add another 100 - 200.
- Farm at Red Hill (Albemarle County). This farm is starting a Winter CSA and hopes to eventually expand to year-round.



**Class field trip to local CSA,
Best of What's Around**



Community garden plot at Azalea Park

Source: <http://www.charlottesville.org>

Local Gardening Initiatives

In recent years, notable efforts have been made by organizations within the City of Charlottesville at forming a more sustainable community food system. Through the creation of numerous local gardening initiatives, a great deal of progress is being made in the area.

For instance, in summer 2005, the Charlottesville Community Design Center launched the "Charlottesville Grows" program, as proposed by Graduate Urban and Environmental Planning Student, Chris David. The program's first pilot garden, in partnership with Bret Ferrell of Charlottesville Abundant Life Ministries, was planted in the subsidized housing complex of Blue Ridge Commons because of its lack of access to affordable,

fresh, and nutritious food. The garden was designed by two local landscape architects and consists of two raised beds. The first planting was completed in late summer 2005 and the first harvest came that fall.

Students for Sustainable Communities, a student-led group at the University of Virginia that has also organized a community garden, is currently reaping its first batch of produce. Features

include organic foods such as sweet basil, pole beans, ground cherries, sweet corn, sweet peppers, and Brandywine tomatoes.

Meanwhile, the Quality Community Council's Economic Development Focus Group has established a long-term workforce through its Urban Farm Project development initiative at 6th Street and Garrett Street.

For those not involved in a defined group or organization, Charlottesville has a limited number of public garden plots available to individuals who desire to rent one. Azalea Park is on



Members of the community working on the Urban Garden in the Ridge Street Neighborhood

Source: <http://www.cvilleddesign.org>

the southern edge of Charlottesville near Interstate 64 and offers area residents with the option of renting 90 square-foot plots.

Meadowcreek Gardens is located on Morton Drive, off of Route 29 North and adjacent to the Greenbrier neighborhood. It has developed 73 community plots for residents to grow flowers and vegetables.

What is more, several new residential developments like the upscale Belmont Loft Company are offering gardening plots among their list of amenities. The new Bundoran Farm development in Covesville plans on retaining its farming activity through a unique form of shared ownership that is written into the development's covenant.

In spite of the city's many urban gardens, common criticisms of the initiatives do exist. For instance, while there are several gardens located within the city boundaries, the majority of the community garden space is

located on the perimeter of Charlottesville, limiting access and requiring car travel to reach them. Additionally, the amount of gardening space that is currently available is far from being enough to serve a majority of the city's residents.

Examples of Model Producers

Farm: Blue Heron

Owner/Farmer: Keith Dix

Production: 20 acres total: only 3 cultivated for organic vegetables and small fruits. Master gardeners visit every year.

Distribution: local restaurants, Nellysford Farmer's Market, CSA members (for the past five years)

Farm: Cason Farm

Owner/Farmer: Bill Cason

Production: 4.5 acres: fruits and vegetables grown as well as Christmas greenery.

Distribution: Charlottesville Farmer's Market

Barriers: single-handedly maintaining a farm in old age, producing enough to sell

Farm: Double H Farm

Owner/Farmer: Richard Bean

Production: 30 acres total: 5.5 for vegetables, a vast majority for animals. Double H Farm has mostly hogs, some cows and chickens that utilize a grass pasture, and some goats that roam the farm's mountainside. Certified organic vegetables, meat, and eggs are sold.

Distribution: local stores and restaurants, Charlottesville and Nellysford Farmer's Markets to maintain a relationship with buyers

Involvement: Virginia Independent Consumers and Farmers Association to fight for a direct link between farmers and consumers

Incentives: to forge relationships, to make sure customers get the best product

Barriers: bugs (investigating more organic methods), soil quality

Farm: Nelke Farm

Owner/Farmer: Eric and Dorothy Nelke

Production: 70 acres leased from neighbors: 20 cultivated to grow 30-40 varieties of organic vegetables (oriental, heirlooms, speciality) and plants for sale.

Distribution: Charlottesville and Nellysford Farmer's Markets, on-site

Incentives: integrity, to maintain relationships with customers who are close, to spread the knowledge that organic needs not be elite

Barriers: the need for many fertilizer supplements

Farm: Satyrfield Farm

Owner/Farmer: John Coles

Production: Organic countryside farm of 10 acres: one-third of one acre for produce, rest for the grazing of ten goats. Typically grows arugula, basil, dill, garlic, green Egyptian onions, spinach, tomatoes, and watercress. Goat's milk cheese is processed on site.

Distribution: Integral Yoga, Charlottesville Farmer's Market

Involvement: Virginia Independent Consumers and Farmers Association as of five years ago to combat the stringent government regulations that are placed on small farmers. Posts signs at Farmer's Market that explain personal problems with government and regulation.

Incentives: belief in his work, to prove that the quality of food is not connected to having officially certified organic products

Barriers: regulations and restrictions that are imposed upon small farmers yet meant for agribusinesses (in 2005, the cost to be inspected for the production of dairy was \$50,000)

Food Distribution in the Region

Because of the inherent complexity of distribution systems, the Distribution Team did not focus its research upon the boundary given by the Thomas Jefferson Planning District Commission. Instead, they concentrated their efforts only on the City of Charlottesville and its immediately adjacent areas—mainly portions of urbanized Albemarle County.

Methodology/Summary

Within this subset of the food assessment, we sought to identify as many distribution points as possible within the City of Charlottesville. In addition to the major distribution companies, the city has grocery stores, convenience/corner stores (convenience stores that are located within residential areas), and restaurants. The region includes two hospitals: Martha Jefferson and the University of Virginia. There are also many schools, both public and private. Additional points of distribution include churches, food banks, and various other agencies that provide alimentary assistance to those persons in need.

In completing interviews with ten grocery stores, four restaurants, and the Blue Ridge Area Food Bank, we hoped to gain a better understanding of the system of food transfer within the region.

Major Distributors

Within Charlottesville, there are four primary food providers: Aramark, Cavalier Produce, Standard Produce Company, and Sysco. Of these four enterprises, Aramark and Sysco are large corporations of an international scope, while Cavalier and Standard Produce Companies

are both locally based and of a much smaller scale. In one form or another, these four companies collectively supply almost the entire Charlottesville region.

Standard Produce Company has been an institution of Charlottesville since 1910. Currently headed by President C.R. Thomas, the company works out of its location at 104 Garrett Street and supplies a great deal of local restaurants with produce and other key ingredients. In a similar manner, Cavalier Produce is a wholesale distributor that is “dedicated to maintaining the highest level of quality and service.” Locally owned and operated, Cavalier sees its primary mission as to provide the freshest produce in Central Virginia at the most competitive prices. Located adjacent to C’ville Market at 221 Carlton Road, Cavalier advertises that they are “big fans of local produce,” and that “if it’s in season in Virginia, we’ve got it at a great price.” While both companies occasionally distribute small portions of local and organic produce, it is their conventional products that are most frequently distributed in venues around town.

Unlike the aforementioned local companies, Aramark is an internationally distributed and recognized brand. Led by Joe Neubauer, Aramark has truly become a global leader in professional services, with total sales in 2005 measuring approximately \$11 billion. Indeed, in Fortune magazine’s 2006 list of “America’s Most Admired Companies,” Aramark was ranked number one in its industry. It should be noted that the extent of this industry is tremendous; Aramark is the primary food service provider in several realms, including businesses and industries, colleges and universities, convention and conference centers, correctional institutions, healthcare facilities, parks and resorts, school districts, senior living services, and sports and entertainment venues. In Charlottesville, the presence of Aramark is part of the University of Virginia, as it services an additional 400 institutions of higher learning across America.

On an even larger scale, there is Systems and Services Company, commonly known as Sysco. In this industry, Sysco trumps Aramark with 2005 sales measuring \$30.3 billion. As it operates from 170 locations throughout the contiguous United States, Sysco has managed to build sales relationships with over 390,000 customers and remains unwavering in its commitment to food service industry and its clientele. In Virginia, Sysco operates three facilities, including the Baugh Northeast Co-Op Redistribution Center in Front Royal (a Sysco subsidiary serving 14 companies in the northeast) and Sysco Food Services of Virginia in Harrisonburg.

Proponents of a sustainable community food system might find ease in learning that such large distributors are not opposed to the idea of a sustainable, local food system. Outlined on Sysco’s website is its ChefEx, a program designed to directly connect suppliers and customers. Though primarily aimed at educating the discerning chef, this feature is nevertheless useful from a food-planning perspective. In fact, listed are several innovative and/or organic Sysco suppliers, including Applegate Farms (supplier of natural and organic meats), Dagoba (organic chocolates), and Golden Ridge Cheese (an Amish co-operative specializing in natural rind blue cheese).

One additional distributor, Southern Select Produce, was identified after most of the work for this class was completed. The Albemarle County school system uses this vendor and has been successful at procuring locally grown apples through them. Their website states, “We are a family owned and operated business located in the beautiful state of Virginia. We are dedicated to providing our customers with the finest quality products available in the world.”

Grocery Stores

The following is information we gathered from interviews at grocery stores within the City of Charlottesville:

Store	6th Street Market	7-Eleven	Asian Market	C'ville Market	Food Lion (5th St)	Harris Teeter	Whole Foods
Chain or Local	Local	Chain	Local	Local	Chain	Chain	Chain
Company Structure: Corporate or Franchise	N/A	Franchise	N/A	N/A	Unknown	Unknown	Unknown
% Local	5%	0%	0%	40%	0%	0%	Low%
% Organic	0%	0%	Unknown	30%	5%	25%	25%
Decision-Maker	Owner	Individual Manager	Owner	Unknown	Head-Quarters	National Head-Quarters	Regional Office; Store Managers Have Some Input
Primary Demographic Served (if applicable)	Belmont Neighborhood	Mexican and Commuter	Mostly Asian Families	None	5th St Area	Well-Off	Regional Customer Base

We also compared produce prices among the following grocery stores to gain a better understanding of price equity across areas within the city:

Store	Median Income of Customers	Apples	Bananas	Oranges	Grapes	Strawberries
IGA	\$25,276.35	\$1.29	\$1.91	\$0.69	\$1.99	\$5.99
Integral	\$25,335.64	\$2.49	\$0.99	\$1.99	None	\$5.99
Yoga	\$32,891.20	\$0.50	\$0.59	\$0.33	\$1.79	\$1.50
C'ville Market	\$35,573.00	\$0.99	\$0.59	\$1.00	\$2.99	\$3.99
Giant Food	\$39,603.75	\$1.69	\$0.57	\$0.89	\$2.99	\$3.99
Food Lion (5th)	\$44,180.67	\$1.99	\$0.69	\$0.79	\$2.99	\$3.00
Whole Foods		\$1.79	\$0.49	\$0.79	\$1.50	\$4.99
Kroger (1904 Emmet)	\$45,281.82					
Giant Food (Seminole Square)	\$48,687.82	\$1.99	\$0.59	\$1.20	\$2.99	\$3.99
Kroger (Rio Road)	\$53,251.17	\$1.79	\$0.59	\$0.79	\$2.99	\$4.99
Food Lion	\$58,096.00	\$1.69	\$0.49	\$0.75	\$2.99	\$2.00

Store	Median Income of Customers	Potatoes	Onions	Broccoli	Lettuce	Tomatoes
IGA	\$25,276.35	\$0.69	\$0.69	\$1.79	\$1.49	\$1.99
Integral Yoga C'ville Market	\$25,335.64	\$1.49	\$1.99	\$3.99	\$2.49	\$2.99
Giant Food	\$32,891.20	\$0.66	\$0.56	\$1.79	\$1.49	\$1.49
Food Lion (5 th)	\$35,573.00	\$0.70	\$1.00	\$1.49	\$1.69	\$2.49
Whole Foods	\$39,603.75	\$0.79	\$0.99	\$1.99	\$1.49	\$2.99
Kroger (1904 Emmet)	\$44,180.67	\$1.49	\$1.49	\$2.29	\$2.29	\$2.99
Giant Food (Seminole Square)		\$0.60	\$1.49	\$1.99	\$1.19	\$2.50
Kroger (Rio Road)	\$45,281.82	\$0.99	\$0.99	\$1.99	\$1.69	\$1.99
Food Lion	\$48,687.82	\$0.99	\$0.99	\$1.99	\$1.69	\$1.99
	\$53,251.17	\$0.62	\$1.49	\$2.99	\$1.19	\$1.99
	\$58,096.00	\$0.70	\$0.66	\$1.69	\$1.29	\$2.59

Prices in bold indicate the grocery store offering, on average, the most expensive produce within its category (i.e., on average, Integral Yoga offers more expensive apples than the rest of the grocery stores). However, an important note is that findings do not indicate variations per region nor do they reflect differences among stores regarding produce freshness, nutritional quality, or variety.

Restaurants

The following is information we gathered from interviews at restaurants within the City of Charlottesville, divided by price:

1. Inexpensive		
	Chain: Subway	Local: Bodo's
Company Structure: Corporate or Franchise		Small, Locally Owned/Operated Chain
% Local		20%
% Organic		0%
Decision-Maker		Owner
Primary Demographic Served (if applicable)		Local Residents

2. Mid-Range		
	Chain: Applebee's	Local: Revolutionary Soup
Company Structure: Corporate or Franchise	Corporate	Locally Owned/Operated
% Local	All of Produce	100% When in Season; Less When Not
% Organic	0% (Officially)	100%; All Suppliers are Organic, But Not All are Certified
Decision-Maker	Store Manager, for Produce	Restaurant Owner
Primary Demographic Served (if applicable)	Casual Diners	Local Residents
3. Expensive		
	Chain: Outback Steakhouse	Local: L'Etoile
Company Structure: Corporate or Franchise	Corporate (?)	Locally Owned/Operated
% Local	0%	100% When in Season; Less When Not
% Organic	0%	100%; All Suppliers are Organic, But Not All are Certified
Decision-Maker	Company, Mostly	Restaurant Owner
Primary Demographic Served (if applicable)	All	Local Residents on the High-End, Financially

Examples of Model Restaurants

Restaurant: L'Etoile

Owner: Mark Gresge

Attributes: "Virginia cuisine" prepared with French techniques. All produce is organic and purchased locally from Polyface Farms when possible. Menu reflects the flavors of the area as well as the season.

Involvement: member of the Charlottesville Slow Food Chapter

Incentives: belief in supporting local suppliers, providing residents with superior quality foods

Barriers: the cost of such high quality foods

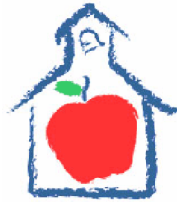
Restaurant: Revolutionary Soup**Owner:** Wilson Richie

Attributes: “Revolutionary Soup is a locally owned, independent restaurant. Their goal is to provide Charlottesville with the highest quality, freshly prepared soups, sandwiches, salads and wraps. Fresh, healthy ingredients are the first step in this process, and unique, creative recipes are the next step. Add to this equation quick, friendly service in a casual atmosphere, and you have Revolutionary Soup!” The majority of produce is organic and purchased locally from Polyface Farms when possible. Menu reflects changes in the season; meals are served with locally produced apples or oranges as well as bread from a local bakery.

Involvement: catering**Incentives:** belief in supporting local producers**Barriers:** none***Institutions***

Similar to restaurants, many institutions utilize large-scale food service distributors because they provide the most efficient, cost-effective services and products. Institutions such as public schools and hospitals especially experience this pressure to offer food at large volumes and at the lowest cost possible.

The public school system of Charlottesville, for instance, operates its food services on a bid system, offering a bid to at least three companies for each category of food before determining which will be suppliers for the whole year. Barbara Green, Assistant Administrator of Nutrition Services for these city schools, identified Sysco as the number one supplier for the system, though the goods from other distributors such as Cavalier Produce, Quality Foods, Shenandoah's Pride, and Vendors Interstate Bread Company are offered as well. “You have to serve a good food so more kids eat it so you get more finances, which allow for a greater selection of foods, which makes more people want to eat it.” The nutrition services department is the only self-supporting department in the school system—each meal cannot exceed the price of \$1.75. In spite of this low rate, the Charlottesville school system tries to promote local businesses. Last year, it used Mountain Cove Orchard apples to supplement their usual produce supplier, as did Albemarle County Schools—a change that was well received.



Charlottesville City Schools

Food Banks and Support Agencies

Despite the abundance of food in the United States, food insecurity—the lack of assured access at all times to enough food for an adequate, healthy life—affects nearly 10% of the American population. When assessing the Charlottesville region, we must therefore ask from *where* emergency food sources come, and whether these needs can additionally be met by local supply. The final goal should be to educate regular users on how to produce their own food and eventually help them to become food self-sufficient.

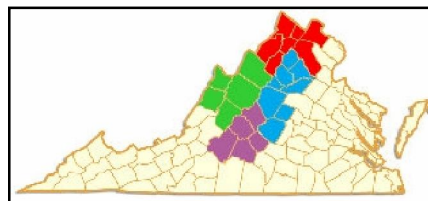
State Statistics

- Population: 7,078,515
- Food insecurity rate: 8.4%
- Poverty rate: 9.3%
- Child poverty rate: 13.2%
- Unemployment rate: 3.3%

While hunger may be deeply related to social and economic inequalities, establishing local distributional efficiency can help to strengthen community resilience to such challenges. The

Charlottesville region has a number of volunteer efforts and non-profit organizations that participate in emergency food distribution:

The Blue Ridge Area Food Bank Network (BRAFBN) is a 501(c) 3 nonprofit Virginia corporation. Established in 1981, the food bank has distributed over 86 million pounds of food to communities in nine cities and 25 counties within the four area branches of Lord Fairfax, Lynchburg, the Shenandoah Valley, Winchester, and the Thomas Jefferson Area (Charlottesville's branch distributor). The Thomas Jefferson Area Food Bank distributes food to participating non-profit organizations only and is a USDA Program serving income-eligible individuals. This is a non-profit regional food-clearing house that gathers, stores, and distributes government surplus food products and edible but unmarketable food that has been acquired from other sources at a low cost. The BRAFBN provides emergency food for an estimated 129,000 different people annually. Approximately 16,500 individuals receive assistance in any given week.



BRAFBN Statistics

- 72% are food insecure
- 70% have incomes below the official federal poverty level
- 49% of households include at least one employed adult
- 38% are children under the age of 18 years old
- 38% have to choose between paying for food and paying for utilities or heating fuel
- 38% have to choose between paying for food and paying their rent or mortgage
- 32% have to choose between paying for food and medication or medical care
- 30% are experiencing hunger
- 11% are children ages zero to five years old
- 11% are homeless
- 4% of the members of households are elderly

Salvation Army

- a. Feeding Program. Hot meals are provided three times a day for all residents. All meals are open to the public, except lunches Monday through Friday, at which time free meals are available at downtown churches (soup kitchens):

Monday	First United Methodist	101 E. Jefferson St.
Tuesday (Oct. – Apr.)	First Baptist Church	632 W. Main St.
Tuesday	Christ Church Episcopal	103 W. Jefferson St.
Wednesday	First Presbyterian Church	632 W. Main St.
Thursday	Holy Comforter	500 Park St.
Friday	First Christian Church	112 W. Market St.

- b. Food Stamp Program. Households with little or no income or resources are eligible for expedited (seven day) food stamps. Recipients use an electronic benefit transfer system, basically a plastic card with a magnetic strip and personal identification number. The card may be used at retailers authorized by Food and Nutrition Services (FNS) of the USDA.

Food Stamp households may additionally use their Food Stamp allotment to obtain low-cost meals at FNS-authorized restaurants. Account resources may be used seven days a week and 24 hours a day.

Emergency Food Bank. A volunteer organization that provides a three day supply to individuals and families in the Charlottesville-Albemarle area who find themselves in an emergency, without food. Volunteers take requests for food Monday through Friday from 9:00am until noon. The food is transported from the storeroom to a distribution site where it is available for pick-up between 1:30pm and 3:30pm that same afternoon. Based on the recommendations of a nutritionist (an Emergency Food Bank board member), an appropriate amount of food for the preparation of balanced meals for at least three days is provided in each order. These foods include beans, bread and margarine, cereal, canned fish, canned fruits and vegetables, fresh milk, pasta, peanut butter, and soup. Baby food and formula, as well as certain foods that are needed for medical reasons, are provided upon request. People living on the street or in temporary quarters with no kitchen may ask for special orders containing ready-to-eat foods and eating utensils.

Projects unique to the Emergency Food Bank include providing nutritious snacks for children in the Albemarle County Bright Stars Program, working with City and County Social Services, delivering orders for individual clients to the On Our Own facility, the United Way, and other supporters to furnish personal hygiene items when needed, and providing lunch supplies for homeless men who are being sheltered and fed during the winter season.

This tax-exempt organization receives no government funding. It is run solely by volunteers and its operation depends exclusively upon the generous support of area businesses, churches, civic groups, individuals, and schools. As the operating expenses are minimal, over 90% of monetary contributions to the Emergency Food Bank are used for food purchases. Whenever possible, food is purchased at wholesale or discounted prices.

HIV/AIDS Services Group. A group that provides assistance for individuals and families with HIV/AIDS. A food pantry is available to parties that are in need of emergency assistance.

On Our Own of Charlottesville. This program supplies a minimal amount of food for emergency assistance as well as kitchen facilities for individuals to prepare and cook their own food in. Free coffee is offered everyday from 10:30am to 2:30pm, lunch is prepared for individuals on Fridays at noon, and the soup kitchen is open on Sundays beginning at 1:30pm. On Our Own of Charlottesville's facility is located on 4th Street NW.

Jefferson Area Board of Aging (JABA). Offers home-delivered meals as well as senior meal sites in the following locations:

- Afton County—Rockfish Senior Center, 190 Rockfish School Lane
- Charlottesville—Mary Williams Senior Center, 1512 East Market Street
- Crozet—The Meadows Center, 5800 Meadows Drive
- Esmont—Esmont Senior Center, Porters Road
- Fluvanna County—Fluvanna Senior Center, 6 Hickory Hill Drive
- Louisa County—Louisa Senior Center, 522 Industrial Park Drive
- Nelson County—Gladstone Senior Center
- Scottsville—Scottsville Senior Center, 7359 Pontreas Road
- Shipman—Shipman Senior Center, 192 Tye River Road
- Stanardsville—Greene Senior Center, 10 William Road
- Union Run—Keswick Senior Center, 4 Shortwood Drive

Community Meals on Wheels. Volunteers deliver meals Monday through Friday, including holidays, to homebound Charlottesville-Albemarle residents who are unable to cook their own meals and have no one to help them.



Meals on Wheels of Charlottesville

Source: <http://www.avenue.org>

Food Closets. Volunteer-run emergency food programs that provide groceries to homeless and very low-income people. Donations are received from individual families, canned food drives, restaurants, and stores. The following churches run their own Food Closet programs in Charlottesville:

- Belmont Baptist: 296-7111 (830 Monticello Avenue)
- Church of Our Savior: 973-6512 (1164 East Rio Road)
- Covenant Church of God: 973-5536 (1025 East Rio Road)
- Hinton Avenue United Methodist: 293-7049 (Hinton Avenue)
- Jefferson Park Baptist: 293-6175 (2025 Jefferson Park Avenue)
- Thomas Jefferson Memorial Church: 293-8179 (717 Rugby Road)

Church Activities.

a. Church of Our Savior

1165 East Rio Road

Charlottesville, VA 22901

- Salvation Army Soup Kitchen. On three Fridays each month, teams of parishioners shop, prepare, and serve dinner for approximately 80 people at the Salvation Army.
- Food Closet. Needy individuals and families find food assistance three days a week at this Food Closet. Typically, eight families are served each of these days. Food items come from purchases at the Jefferson Area Food Bank and donations that are made by parishioners.
- Habitat for Humanity. Parishioners, both novice and experienced, team up with Habitat for Humanity leaders to build houses for low income households that will then become the homeowners of the structures. This coming season, churches in Region 15 expect to begin an "Episcopal House;" a location remains to be selected as well as funds raised.
- Holiday Food. Each Thanksgiving, Christmas, and Easter, holiday food (turkeys or hams, potatoes, pies, and more) is provided for 20 families. The food is generously donated by the parish.

b. Church of the Incarnation

1465 Incarnation Drive

Charlottesville, VA 22901

- Hosts dinner at the Salvation Army on the first Wednesday and third Saturday of each month. The need for food is drastically increasing as the rising cost of housing in Charlottesville depletes the food allowances of a number of local families.
- Donates to the AIDS Services Group, Holy Comforter Food Pantry, Neighbors in Need, and Salvation Army.

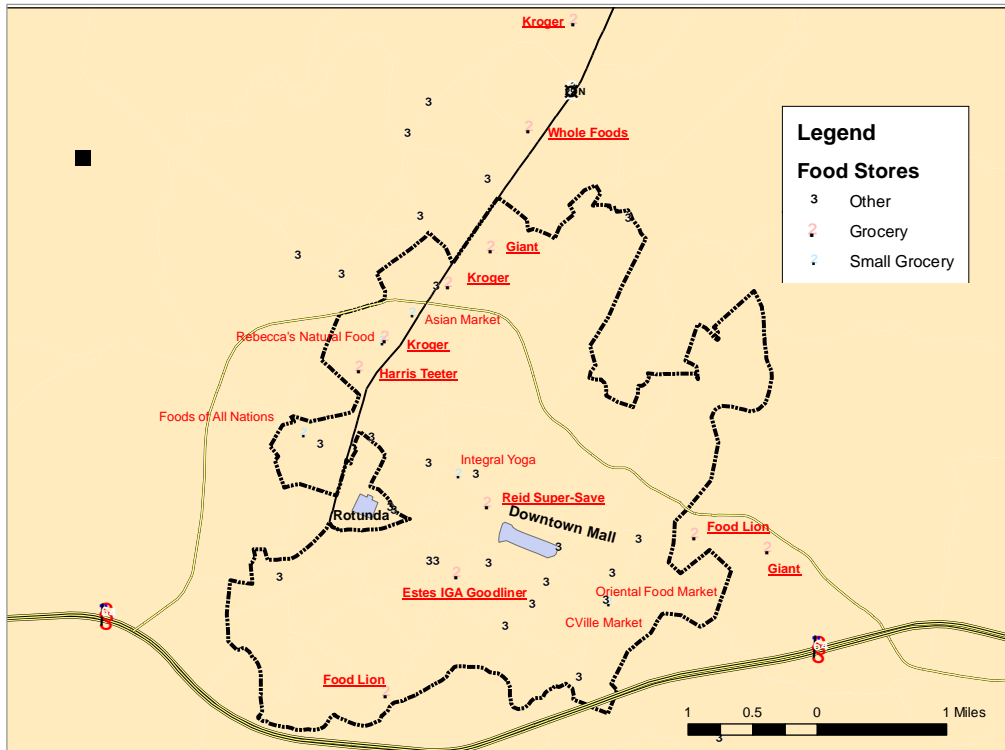
c. First United Methodist

101 E. Jefferson Street
Charlottesville, VA 22902

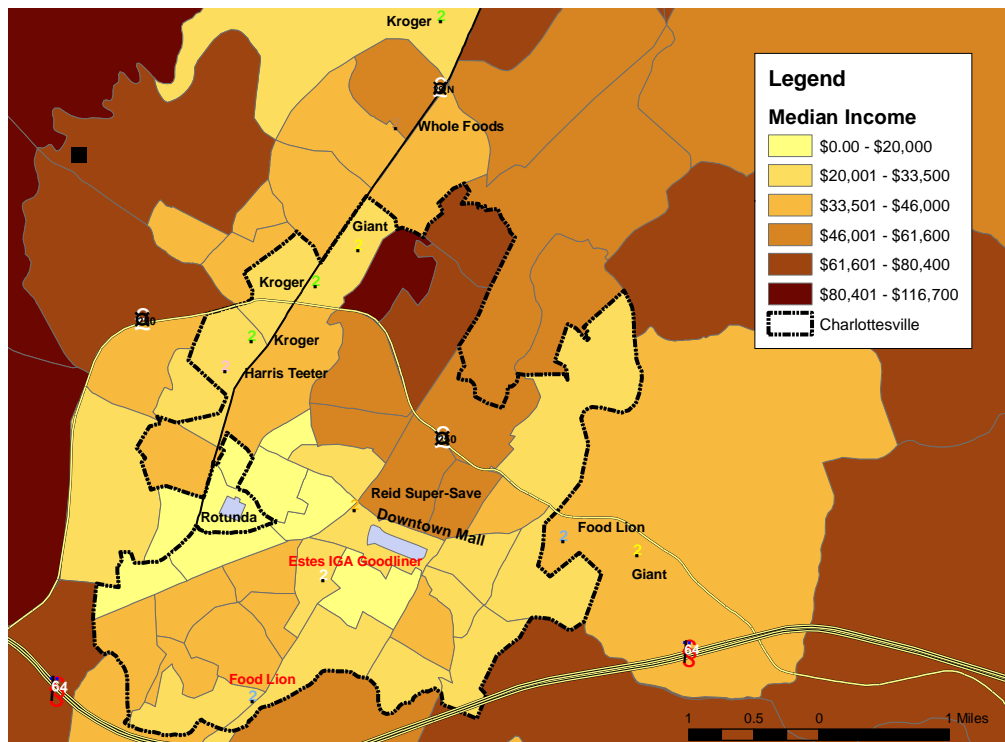
- Bread Pick-Up. A local bakery provides leftover bread that is then distributed to local non-profit agencies. First Church is responsible for Tuesday pick-up. This involves gathering breads and desserts from the bakery and then delivering them to the designated agency.
 - Holy Comforter Food Pantry. This is a cooperative food distribution project with a local downtown church. Bags of groceries are prepared for the needy and distributed based upon family size. Workers in this area help interview clients, pack grocery bags, and organize food drives within the congregation. Distribution day is Wednesday.
 - Meals on Wheels. This is a transportation and connection program that provides meals to individuals who are no longer able to cook for themselves. Often, the person delivering the meal is the only human contact the meal recipients may have during that day. Food is delivered Monday through Friday.
 - Men Who Shop. This ministry, while called Men Who Shop, is open to males or females who are interested in shopping for needy families. Shop day is the third Friday of every month and each participant contributes \$30 per month.
 - Soup Kitchen. This ministry provides a hot meal served at noon for people in need.
 - The Welcome Table. The Welcome Table is an upscale meals program that provides an opportunity for social service agencies to nominate participants who have faced outstanding circumstances. First United Methodist serves this meal once each quarter.
- d. Holy Comforter Catholic Church
- This church's food pantry operates on Tuesdays, Wednesdays, and Fridays; its soup kitchen is open on Thursdays.
 - Holy Comforter Catholic Church also receives food from donations and the Thomas Jefferson Area Food Bank, and picks up free day-old bread from Chandler's Bakery on Wednesdays for Thursday's soup kitchen.

Food Equity in the Region

Equally important to inquiring how food is grown and distributed within a region is identifying whether all population subsets are able to access culturally acceptable and nutritionally adequate foods. For this reason, we looked at Charlottesville median household income levels per census tract in relation to distributional locations, bus route accessibility, and vehicular ownership. We found, through mapping exercises, that the areas of lowest income within the city also happened to be the ones located the farthest from grocery stores and with the fewest numbers of vehicles per capita.

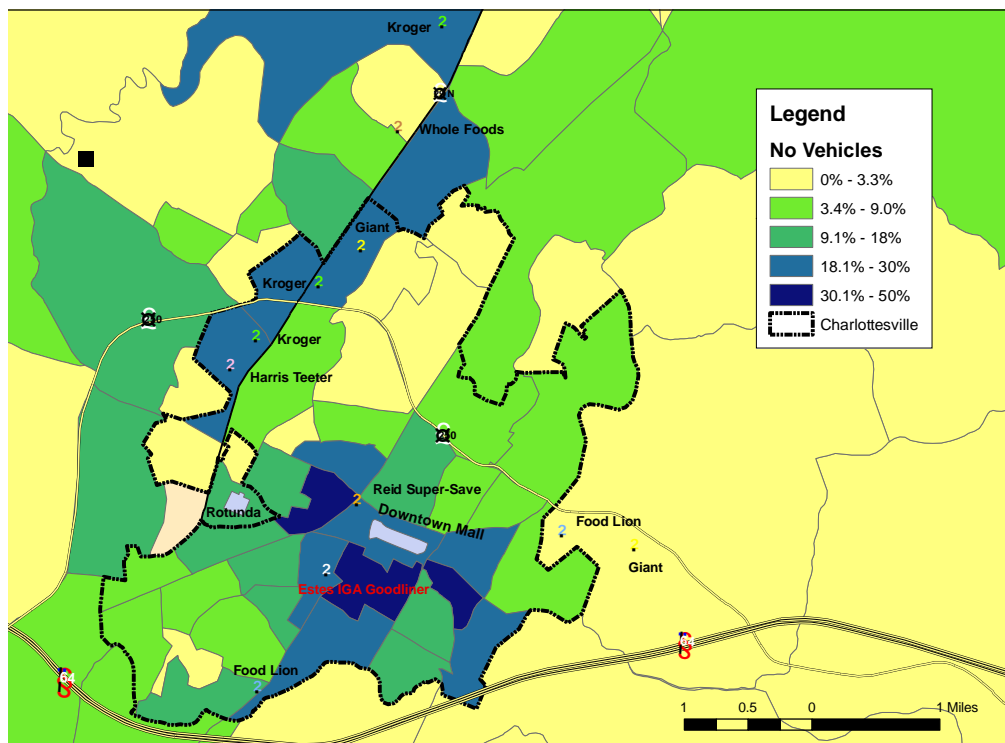


Grocery stores, small grocery stores, and other food stores (convenience and corner stores)



Major grocery stores (ones that supply 80% of the average household's grocery needs) layered over measures of average median income level per census tract

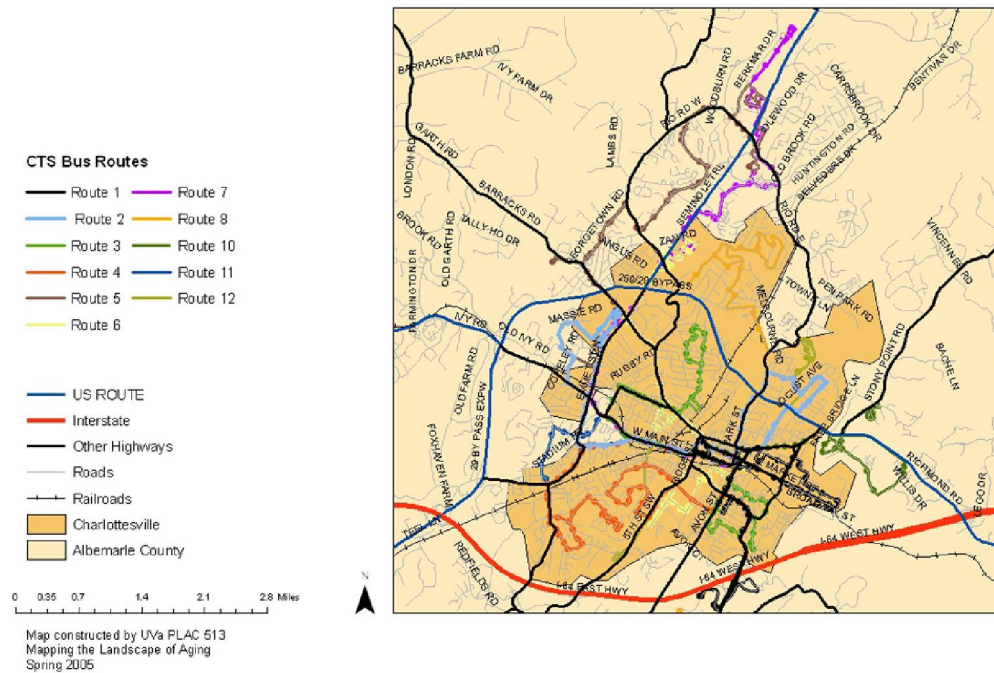
Areas with the lowest income levels have fewer proximal options; pay particular attention to the south and southwest regions of the city, as well as the northeast tracts. (Note: tracts immediately surrounding the University represent students with little or no income.)



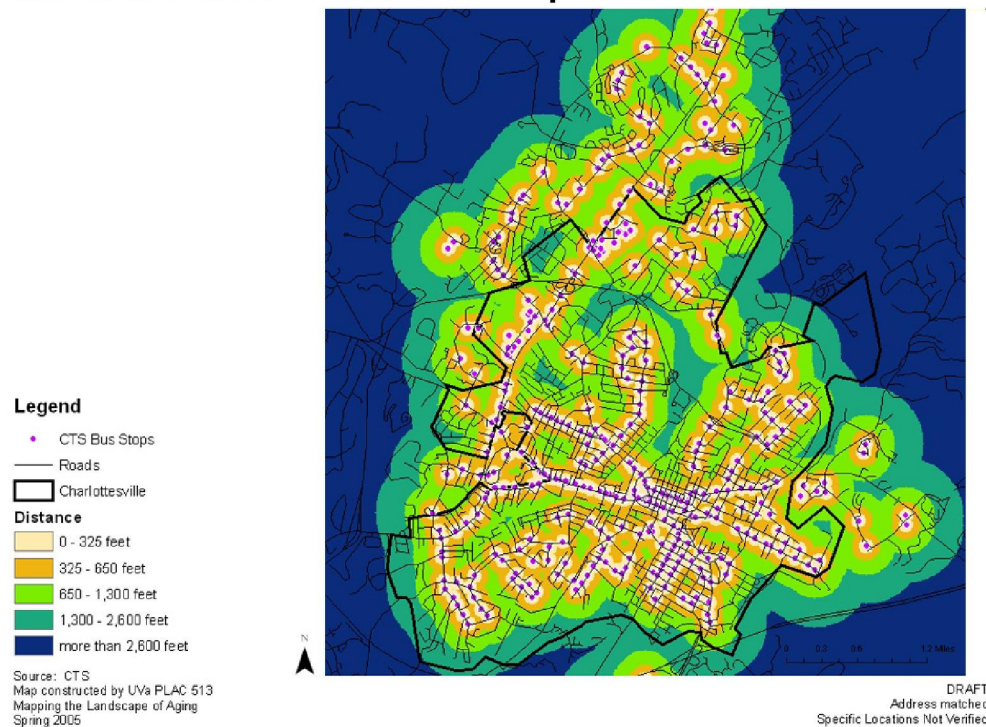
Percentage of homes without vehicles

Particularly within the downtown areas, vehicle ownership is low, and primary grocery stores are few. Vehicular ownership is additionally low along the Route 29 North corridor; although six primary grocery stores are located in this area, ease of walkability within these locations is fairly low. Bus routes are, however, accessible.

CTS Bus Routes



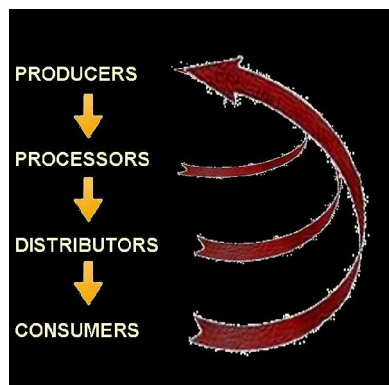
Linear Distance to CTS Bus Stops



Distances between bus stops

There is very little land area within the City of Charlottesville that is not within a quarter-mile radius of a bus stop. In transportation planning, this is generally accepted as a distance that the average citizen is willing to walk. Buses do not, however, operate at all times, nor are they very frequent or reliable in the times that they pass. Depending on one's destination, a traveler may have to transfer several times.

Food Waste in the Region



To have a completely sustainable community food system, it is essential to consider the disposition of food waste. The impacts of food waste include transportation costs and concurrent natural resource depletion and air quality impacts, a loss of inhabitable space to landfills, and water quality degradation.

Rivanna Solid Waste Authority: Former Compost Facility

In October 1997, the Rivanna Solid Waste Authority (RSWA) was issued an Experimental Compost Facility Permit to gain and test information on the feasibility and optimization of composting source-segregated food waste at the Ivy Landfill.

From a RSWA 1997 letter to DEQ:

“It has been estimated that roughly 20% of all Municipal Solid Waste (MSW) normally buried at the landfill is food waste. With a major food processing plant (ConAgra) and a major university (UVA) food service within the RSWA jurisdiction, local food waste composting represents a potentially significant form of waste diversion and, hence, an important component of the RSWA’s long term waste management strategy. To this end, the RSWA is exploring the possibility of implementing a full-scale, state-of-the-art composting system at the Ivy Landfill. We hope to be able to process 40 tons per day of pre- and post-consumer food waste, soiled paper products, and yard trimmings. RSWA, already the largest and only public food waste composter in Virginia, is proud to be a pioneer public agency in the effort to divert MSW from increasingly precious landfill space. For the program to be successful, however, RSWA must be able to recover some expenses by selling the compost product for public use.”
[The cost was calculated to be \$9.04 per ton of compost.]

In its experimental phase, the facility received an approximate average of two tons per day of raw food waste: mainly carrots, peas, potatoes, and rice. The compost recipe also included school compost as well as paper and cardboard from the RSWA Paper Sort facility located in the city. Though no meat products were accepted, seafood trimmings and cheese, butter, and yogurt were suitable, as were wet or soiled paper, used paper towels, and napkins. Finally, mixed yard and wood waste was accepted as well.

The experimental compost project yielded valuable data. Most importantly, the pilot demonstrated that high-quality compost can be produced from food waste.

The full capacity was envisioned to accommodate 35 composting vessels containing 116 tons of feedstock each for a total site capacity of 4060 tons of material. The technology was “Ag-Bag Compost Technology International.” Activated carbon cylinders would be used for odor control and requirements were in place for nuisance odor monitoring.

Though the site was hoped to have a useful life of 30 years, the site operated only for two; in November 2000, the facility was closed. RSWA stated: “Our main food waste supplier,

ConAgra, has closed and we can not operate properly with the remaining minor amount of other food waste.”

Panorama Farms

Years ago, Steve and Drew Murray created a compost business in order to help save their family farm in the Earlysville area. The farm accepts leaves from the City of Charlottesville as well as poultry litter and the resulting business has become largely successful, yielding a high quality product sold as “Panorama Paydirt.”

Panorama has completed a pilot project with Whole Foods, but it was short-lived (about one month in duration) due to high transportation costs. Whole Foods placed pre-consumer green waste into large totes and the Murrays hauled it back to their farm.

Though transportation is a limitation, Panorama is still interested in food waste composting. In the future, they would prefer to stay away from fatty foods because of vector attraction; however, meat would be acceptable as long as it is managed well and the current facility has the necessary carbon stores to mix with it.

In a recent interview with Steve Murray, he estimated that the rate Panorama would charge to accept such food waste would be only 25% of what disposers are currently paying in tipping fees. Murray feels that eventually, regulatory mandates will even require food waste diversion because of the large amount of materials going to landfills. For this reason, he suggests that we all should, “Take the long view for cost-effectiveness.” Wherever a compost facility or food waste container might be located, it should be used as an educational tool and placed where people could see and learn from it.

Murray also expressed enthusiasm at the possibility of a partnership program to increase Panorama’s ability to accept food and other compostable wastes from both public and private entities in the surrounding area. University of Virginia was specifically mentioned as a possible contributor, as the Murrays have had discussions with UVA in the past.

A potential drawback to expanding the Panorama business and facility, however, is stricter and more time-consuming regulations. Currently, Panorama is under a simplified Permit-by-Rule that requires the simple provision of an annual report. Upon enlargement, it is likely that more would be asked of the Murrays. Expansion could also pose a problem because only one single-lane road leads to the site; though it is able to accommodate the city’s leaf trucks, the potential need for additional infrastructure could be an issue.

University of Virginia and Food Waste

A recent study conducted by the group, Green Dining, found that 1,490 pounds of post-consumer food waste was produced in just one day at the Observatory Hill Dining Hall and half of a day at Newcomb Dining Hall. Preparatory food waste was not included in the study. Because of the University of Virginia’s obvious footprint as well as its proactive recycling staff, it is a logical place to examine composting. In fact, the UVA recycling division, headed by Sonny Beale, has made several attempts to site a facility in the vicinity of the grounds. So far the proposition has not been accepted due to location and permitting issues.

Nonetheless, Beale believes that UVA’s food service, Aramark, is amenable to environmentally friendly options and will consider “source sorting” (sorting at the point of waste creation) for composting. Currently, the Observatory Hill Dining Hall uses a type of pulper that dewateres and shreds all food waste while Newcomb and Runk Dining Halls use garbage disposals. According to Beale, because pulpers lessen the volume of waste (that is then sent to the Moore’s Creek Wastewater Treatment Plant), they are the school’s best option. Other advantages of using this system include the ability to divert many more tons of waste from landfills, lessen fuel and maintenance needs, and save on disposal costs. Potential disadvantages include increased water usage and an increased load of organic material at the

Wastewater Treatment Plant (since food waste would then be handled as sewage solids), requiring additional electricity and chemicals for processing.

In addition, a consultant working on the UVA food waste stream put forth an idea that consisted of creating an in-vessel composting unit that would begin the microbial decomposition process before waste is hauled to a composting facility. Dewatering could also be accomplished in such a vessel, which would reduce both the volume and weight of waste to be transported.

Food Recovery in the Region: Information and Possibilities

Within the USDA's document, "A Citizen's Guide to Food Recovery," the following suggestions are pertinent to any region aiming to develop the local economy while strengthening reliance on local food sources: [Further reading may be found at <http://www.usda.gov/news/pubs/gleaning/content.htm>.]

- *Field Gleaning*: the collection of crops from farmers' fields that have already been mechanically harvested or from fields where it is not economically profitable to harvest
- *Food Rescue*: the collection of prepared foods from the food service industry
- *Perishable Food Rescue or Salvage*: the collection of perishable produce from retail and wholesale sources

Businesses and Corporations

Food recovery programs need volunteers with organizational talent, transportation, computer help, and office equipment. Participation in food recovery benefits the company, its employees, its customers, and its community; it also increases the business' visibility. To help in the fight against hunger and demonstrate commitment to the community, businesses and corporations can start or join a food recovery program, or:

- Increase employee awareness of local hunger and provide training to make employees more useful volunteers.
- Encourage, recognize, and reward employees and other individuals for volunteer service to the community.
- Sponsor radio and television air time for community organizations that address hunger.
- Donate excess prepared and processed food from the employee cafeteria or from special events to local food recovery programs.
- Donate transportation, maintenance work, or computer services.
- Prepare legal information on donor considerations such as "Good Samaritan" laws as well as food safety and quality.

Food Service Professionals

- Organize a food drive and donate food to a local food bank or pantry.
- Donate excess prepared food from restaurants or catered events.
- Assist organizations in training their volunteers in safe food-handling practices.

Non-Profit Organizations

- Work independently or with existing organizations to assist on-going food recovery efforts.
- Support or develop a community or regional coalition against hunger.
- Develop a community financial fund to fight hunger.

- Plan tours of food recovery facilities or arrange for knowledgeable speakers to increase community awareness of hunger and poverty problems, and what people are doing to address them.

Youth Service Groups and Volunteer Organizations

- Work on their own or with existing organizations to assist on-going food recovery efforts.
- Organize art, essay, or oratorical contests for students to focus on a child's view of hunger as well as its consequences.
- Sponsor a community garden that gives a portion of its harvest to food banks, soup kitchens, and other food recovery programs.
- Supply gardening tools and harvesting equipment for local gardening and gleaning efforts.

Individual Citizens

- Volunteer at food recovery programs.
- Attend food safety training sessions to be better prepared to volunteer in a soup kitchen or shelter.
- Suggest that organizations or businesses sponsor food recovery programs.
- Join or form a community walk/run to benefit a food recovery program.

Assets of the Charlottesville Region

The area has a number of assets that are adequate building blocks for a more secure local food system. These include:

- *Diverse specialty producers* that provide high quality food for households in addition to seeds and plants for those wishing to cultivate on their own.
- *A high number of farms that produce meat*, as meat and dairy are the fastest growing organic sector in the region.
- *Surplus demand for locally grown and sustainably produced food*, as shown by CSA participation and the low level of need for local farmers to advertise their products.
- *A strong, environmentally-minded community* that would embrace more sustainable ways of dealing with food and food waste.
- *Numerous farmer's markets*, which allow for direct marketing between producers, distributors (especially locally owned restaurants), and consumers.
- *A wide variety of grocery stores*, many of which carry local, natural, and organic products.
- *The protection of farmland* through agricultural/forestal districts, conservation easements, and the purchase of development rights.
- *The presence of land use tax breaks* for farmers that have at least five acres of land and foresters with a minimum of 20 acres.
- *Albemarle County's interest in hiring an Agricultural Planner.*



Barriers and Opportunities of the Charlottesville Region

Food Production

1. Barrier: *Individuals have few opportunities to be food self-sufficient.*

Opportunities:

- Continue to develop community gardens that are close enough for people to walk or bike to. Begin to list and pursue viable plots.
- Utilize groups such as Master Gardeners and Plant-a-Row for the Hungry to encourage the development of home garden plots.
- Encourage Habitat for Humanity volunteers to include gardens in their newly created houses.

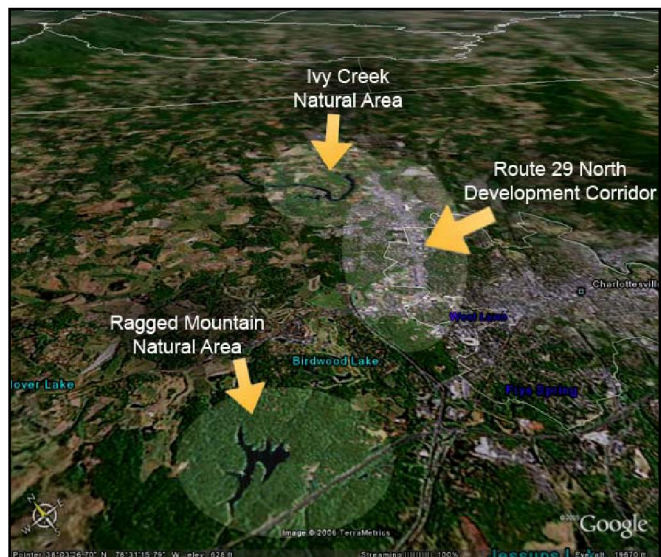


**Potential community garden plot
located off of Eliot Street and 5th Street,
near a cemetery**

2. Barrier: *Farmers' incomes are low and the price of land is high.*

Opportunities:

- Encourage the purchase of locally grown foods through Farm-to-School programs and guidelines such as the "Woodbury County, Iowa Local Food Purchase Policy."
- Zone strategically in order to both allow and encourage food production in urban neighborhoods and subdivisions.
- Create an "Urban Edge Agricultural Park Zone" that would connect the natural areas that run along Route 29 North. According to MetroFarm.Com, the highest profit per acre of farmland in the United States is made by small farms that are located inside urban rings. A coordinated effort to give preference to family farms in such an area could include the creation, through easements and hedgerows, of a corridor of protected space. Placing farmlands along urban areas also increases farmers' abilities to respond to high value niche markets and growing practical markets (such as that for organic herbs). The 2005 Urban Edge Agricultural Parks Toolkit from Sustainable Agriculture Education (SAGE) provides an extensive guide for this.



2. Barrier: *Year-round production is limited.*

Opportunity: Explore using hoop houses, greenhouses, and cold frames (Red Hill Farm of Albemarle County is starting a winter CSA program with this concept in mind).

3. Barrier: *The monetary cost and emotional investment of transitioning from conventional to more sustainable methods is high.*

Opportunities:

- Ask farmers who employ sustainable methods to connect with those wishing to transition.
- Provide governmental incentives for farmers to transition to sustainable methods. An example is the "Woodbury County, Iowa Policy for Rural Economic Revitalization Organics Conversion Policy."
- Take advantage of the Charlottesville region's location. Our local foodshed holds the headwaters of every major inlet from Virginia into the Chesapeake Bay. It is likely that money earmarked for cleaning up the Chesapeake Bay could be used to assist farmers in the use of more sustainable methods.

4. Barrier: *Most farmers are at or near retirement age and many of them do not have any family members interested in taking over their farm, thus putting the land at risk of being developed.*

Opportunity: Develop means of expanding local internship and educational programs that are geared toward sustainable farm development.

5. Barrier: *Farmers have a lack of direct access to distributors and consumers.*

Opportunities:

- Expand current farmer's markets and find permanent, indoor locations for as many as possible.
- Create a Farmer's Cooperative Market.
- Garner administrative, hospital, and student support for the University of Virginia to purchase locally grown foods.
- Explore a shared distribution facility. Appalachian Sustainable Development can provide information.

Food Processing and Distribution

6. Barrier: *No network currently exists that methodically brings farmers together with grocery stores, institutions, and restaurants.*

Opportunities:

- Create an accessible database that exhibits a regularly updated bulletin board for buyers and sellers.
- Connect with the Shenandoah Valley Produce Auction.

7. Barrier: *Farmers have a lack of access to processing facilities and therefore reduced opportunities to sell value-added products with longer shelf lives.*

Opportunities:

- Bring a slaughterhouse to the area that meets USDA requirements.
- Replace mills, sawmills, canneries, and composting facilities through co-operative arrangements. Appalachian Sustainable Development offers an example with its solar kiln. Crown Orchard Packing Plant is also an example of a possibility to explore.

8. Barrier: *Large grocers must obtain food from regional distributors that are often in another state; franchise store managers have little flexibility in what they purchase.*

Opportunities:

- Create new or move existing distribution centers to the region (i.e., so that local food is not sent to Baltimore, Maryland before coming back to Charlottesville's Whole Foods).
- Petition franchise store headquarters to allow stores more decision-making power.

9. Barrier: *There is no full-service grocery store in southern downtown Charlottesville.*

Opportunity: Create a farm co-operative in this currently underserved area.

10. Barrier: *Low-income households have difficulty obtaining fresh, healthy food.*

Opportunities:

- Re-evaluate public transportation times and routes with food access in mind.
- Provide rapid bus transit.
- Offer households in need subsidized subscriptions to CSA programs.

Food Consumption and Waste

11. Barrier: *Consumers are rarely aware of the impacts that their food purchases have on the local farmer, environment, and health.*

Opportunities:

- Create a local food guide to make purchases of locally and sustainably grown items easy. (The Institute for Environmental Negotiation is hoping to do this.)
- Use consumer power. Interested citizens should ask their grocers and restaurants if they buy local products.
- Promote agritourism. A farm in Augusta County uses the name "Eats and Treats" to advertise this business.
- Patronize restaurants and shops such as Feast! at Charlottesville's Main Street Market that concentrates on selling local products.

12. Barrier: *Many consumers are unsure how to prepare fresh, local foods once they are obtained.*

Opportunities:

- Gather community input, especially in low income and low vehicle accessibility areas.
- Begin a community kitchen that includes a cooking school, uses donated food, and serves needy participants.
- Provide cooking classes at local recreation centers.
- Include local media in educational endeavors. In particular, *In the Kitchen* has already begun a local food education theme and would like to build upon it in the near future.

13. Barrier: *The Charlottesville region does not have a large-scale food waste compost facility.*

Opportunities:

- Recognize Panorama Farms' willingness to expand its services.
- Make use of University of Virginia Dining's offer to separate its food waste.
- Build on University of Virginia Recycling's proactive support of composting.
- Encourage households to compost their food waste at home.



Local goat cheese producer who is no longer legally able to sell his specialty food

Food Policies and Regulations

14. Barrier: *Inappropriate one-size-fits-all regulations are negatively affecting our region's producers.*

Opportunity: Involve local and state politicians in local food security brainstorming and problem solving.

15. Barrier: There is a lack of cohesive policies among overlapping jurisdictions.

Opportunity: Create a local food board that includes stakeholders from all sectors of society.

16. Barrier: *Current focuses on the preservation of open space and farmland through easements does not include any incentives for the preservation of food-producing farms.*

Opportunity: Coordinate the efforts of government officials and non-profit organizations who are working on this issue.

17. Barrier: *Land use tax incentives do not apply to farmers who own less than five acres or foresters who hold less than 20 acres.*

Opportunity: Alter land use tax structures and zoning laws not only to acknowledge smaller farms, but also to encourage agricultural zones that can include potentially commercial-like establishments such as a co-operative community kitchen, mill and concurrent timber distribution facility, or slaughterhouse. This allows for as much of the life cycle of a product as possible to take place in a local area.

Next Steps

A Brown Bag Lunch Meeting
has been set for June 15th
at the Gordon Avenue Library,
1500 Gordon Ave,
Charlottesville,
from 12:00-2:00pm.

We believe that change begins with individual ideas, investments, and plans. As future classes and interested community members continue to research and supply information to this study, the possibility for action increases.

On May 8, 2006, the results of this assessment were presented to a group of stakeholders who had expressed an interest in promoting a sustainable food system for the region. The overall feeling at this event was that food security will continue to be a growing concern within the Charlottesville region community. For this reason, some individuals felt it was important to stress that our goal should be local sustainability above all else. At the end of the presentation, audience members participated in recommending next steps in the process. Their thoughts are captured in this section.

Based on our initial assessment, we believe that the following initiatives are feasible and desired by the community. It is hoped that as a network is developed, volunteers will come forward to take the lead in these endeavors with the caveat of keeping the larger interested community informed.

1. *Develop a network of producers, distributors, interested community members, and groups.* Tanya Denckla of the Institute for Environmental Negotiation will lead this charge and develop an electronic listserv for its participants. A database has been developed that includes stakeholders as identified above, those interviewed during the process, those present at the May meeting, as well as those who have expressed interest through other means. Attempts will be made to engage politicians, underrepresented conventional/large scale farmers, and community schools.
2. *Prompt key individuals to create a food policy council for Charlottesville.* A possible name for this organization is "EAT: Everybody at the Table."
3. *Develop a working group of this council that will focus on the creation of a local farmer's co-operative.*
4. *Develop a second working group of this council that will coordinate with developers and the Blue Ridge Area Home Builders Association on incorporating edible landscaping, gardens, and farm stands into new homes and subdivisions.*

5. *Explore the patronage, rules, and number of city community garden plots.* Find who currently uses them and if there are any individuals on waiting lists. Develop new guidelines for the community gardens, as suggested by the Parks Director. Research potential spots for the development of additional garden plots.
6. *Hold a public outreach meeting concentrating on food equity* in the City of Charlottesville in order to gather input from areas that are currently underserved by either grocery stores or markets
7. *Identify potential Farm-to-School and Schoolyard Garden opportunities.* Discussion with the County Schools Food Services Coordinator and a student interested in conducting an independent study has resulted in the plan to research the feasibility of implementing such a program at one or two local schools.
8. *Develop a greater understanding of the region's food history,* to include former mills, orchards, and slaughterhouses.
9. *Identify specific governmental policies that are counter to local food security* and work with elected officials to change them.
10. *Enlist the University of Virginia's Darden School of Business and School of Law* to work on area-specific policy analyses and business model development that will allow local sustainable farms to compete with agribusinesses.

Contacts

Class Professors

Tim Beatley. beatley@virginia.edu. 434-924-6457.

Tanya Denckla Cobb. tanyadc@virginia.edu. 434-924-1855.

Class Students

Barnum, Melanie. melanicu@yahoo.com.

Bedarf, Anne. abedarf@ntelos.net.

Bowen, Blake. bmb2c@virginia.edu.

Camburnbeck, Ella. ejc7u@virginia.edu.

Findley, Megan. maf9f@virginia.edu.

Lewis, Jaime-Jin. jaimejin@gmail.com.

Nesselrode, Lynne. lmn8z@virginia.edu.

Phemister, Mark. mnp4f@virginia.edu.

Quick, Elaine. elainequick@gmail.com.

Thurman, Sara. srt8b@virginia.edu.

Weaver, Serena. ssw5q@virginia.edu.

Producers Surveyed

FARM	CONTACT	PHONE	E-MAIL
Albemarle County			
Abell Brothers Farm	Abell, Carr		
Best Of What's Around/Maple Hill Farm	Evans, Eliza	434-286-7255/ 434-953-6758	info@bestofwhatsaround.org
Broomfield Farm	Dollard, Laura	434-286-4436	

Cason Farm	Cason, Bill and Jack	434-971-9699	
Farm At Red Hill	Harrison, Richard and Wendy	434-979-4693	embelect@aol.com
Forest Flavors	Millich, Ted	434-977-6466	samadhited@earthlink.net
Innisfree	Costello, Trisha	434-823-5646	innisfreecommunitygardens@earthlink.net
Majesty Farm	Russell, Kathryn	434-293-8312	info@MajestyFarm.com
New Branch Farm	Lieberth, Mark and Meyers, Stephanie	434-977-0155	smeyers@surfglobal.net
Panorama Paydirt	Murray, Steve	434-978-4566	
Quarters Nursery	McCaskill, Bill	434.293.6982	
Rural Ridge Orchard-Vintage Virginia Apples LLC	Shelton, Charlotte	434-297-2326	fruit@vintagevirginiaapples.com
Satyrfield Farm	Coles, John	434-973-6505	
Shady Lane Family Farm	Yoder, Nathan	434-985-2533	nathanjyoder1@juno.com
Schaerer Farm	Schaerer, Ed		
Sunny Dell Farm	Young, Spencer	540-832-2640	
Wayland Orchard	Wayland, David	434-823-7323	
City of Charlottesville			
Howard's Honey	Capon, Howard	434-297-9911	
Fluvanna County			
LandovEl Farm	Grunau, Gary	434-842-3651	Landovel@cstone.net
Middle Farm	Easter, John E. II	434-842-3185	easters4@nexet.net
Wild Oats Farm	Swales, Susan	434-286-9273	seswales@hotmail.com
Greene County			
Farm Colony	Thurnau, Donald		
Planet Earth Diversified	Clark, Michael	877ARUGULA/ 985-3570	email@planetearthdiversified.com
Louisa County			
Ploughshare Farm Food Guild/Brackets Heritage Harvest	Lagana, Tony and Nolting, George	540-832-5962	
Randy's Produce Farm	Parrish, Anne-Marie	434-589-8304	
Southern Exposure Seed Exchange	Wallace, Ira	540-894-0595	ira@gardens@southernexposure.com

Twin Oaks Community Foods	Tassinari, Kelly	540-894-4062	pam@twinoaks.org
Nelson County			
Appalachia Star Farm	Bertoni, Kathryn and Michael	434-277-9304	hatwaters@netzero.com
Blue Heron Farm	Dix, Keith	434-361-0091	kdix@ceva.net
Dickie Bros. Orchard	Bruguiere, John and Tommy	434-277.5516	info@dickiebros.com
Double H Farm	Bean, Richard	434-263-8704	genieRR@aol.com
Fork Mountain Farm	Wells, Marjorie M.	540-377-6072	
Mountain Cove Orchards	Bomar, Tom	434-263-8002	pleaseaskus@mountaincoveapples.com
Nelke Farm	Nelke, Eric J. & Dorothy	434-263-8817	nelkefarm@ceva.net

May 8th Meeting Attendees

CONTACT	PHONE	E-MAIL	ADDRESS	ORGANIZATION/PROFESSION
Bertoni, Kathryn and Michael		appalachiastar@netzero.com	Appalachia Star Farm	Producers
Cacciola, Kathy		KMC8p@virginia.edu		Student
Campbell, Billie	979-7310 x230	bcampbell@tjpd.org	P. O. Box 1505, Charlottesville 22902	Public Administrator, TJPDC
Cobb, Cecil	842-3953		3535 Carys Creek Rd., Fork Union 23055	Chair, Fluvanna BOS
Collier, Kate	244-0169	Kate@feastvirginia.com	113 Piedmont Ave., N. 22903	Retail Shop Owner
Fife, Francis			P. O. Box 557, Charlottesville 22902	Citizen (Former Government Official)
Ford, Jane		jford@virginia.edu		
Frisbee, Dan		djdiscofrisbee@aol.com	1111 Altavista Ave., Charlottesville 22902	Environmental Professional, City of Charlottesville
Frisbee, Diane		dkbarnz@aol.com	1111 Altavista Ave., Charlottesville 22902	Environmental Professional, The Nature Conservancy
Garwood, Rochelle	979-7310 x320	rgarwood@tjpd.org	P. O. Box 1525, Charlottesville 22902	Environmental Planner, TJPDC
Glaetti, Repp	295-3424	glaettar@hotmail.com	406 Altamont Circle #3, Charlottesville 22902	Albemarle County Stormwater
Goetzmann, Jann			265 Remington Pl.	Citizen

Gyovai, Christine	804-244-3239	christineg@virginia.edu	1122 Broad Axe Rd., Charlottesville 22903	Permaculturist and Facilitator
Hahn, Mark		mark@hmcatering.com		
Lagana, Anthony and Rebecca	540-832-5962	Freeearthfarm@yahoo.com	2076 Notting Rd., Louisa 23093	Farmer
Lewis, Donna and Ed		EDLBirder@JUNO.COM	1617 E. Market St., Charlottesville	Resp. Therapist, Pre-school Teacher
Lieberth, Mark			1070 Bishop Hill Rd., Charlottesville 22902	Landscape Architect
Mathdi, Michele	978-7446		548 Three Point Ln., Earlysville 22936	Development Director
McRae, Susie	293-4111 X111	yoga@cstone.net	293 H. Preston Ave., Charlottesville 22902	Retail Manager at Integral Yoga
Meyers, Stephanie		smeyers@surfglobal.net	1070 Bishop Hill Rd., Charlottesville 22902	Farmer
Millich, Ted	977-6466	samadhited@earthlink.net		Mushroom Farmer, Forest Flavors
Morrel, Rowena		editor@inthekitchenonline.com		Publisher
Newhouse, Katie	295-3424	katiecap77@hotmail.com	406 Altamont Circle #3, Charlottesville 22902	Admin. Asst.
Reeder, Lisa		lisa@feastvirginia.com	502 Meade Avenue, Charlottesville 22902	Chef and Buyer
Riew, Jayne	979-1611	jriew@yahoo.com	608 Lexington Avenue	Writer and Painter
Roberman, Wendy	977-1221	wroberman@albemarle.org		Albemarle County HR Manager
Singleton, Kendall		kas7jp@virginia.edu		UVA Green Dining
Stewart Silver, Mary	296-7594	mms7w@virginia.edu	1635 Bruce Avenue, Charlottesville 22903	Doctoral Student at UVA's Curry School of Education
Wade, Ron		editor@inthekitchenonline.com		Columnist
Ward, Tom	978-7446	Tom.Ward@earthlink.net	548 Three Point Ln., Earlysville 22936	Open Gate Farm
Wenger, Jess		jsw6d@virginia.edu		UVA EMS Coordinator

West, Shawnee		shawneewest@earthlink.net	1204 E. Jefferson St., Charlottesville 22902	Plant a Row for the Hungry
Woodworth, Laurel		law2h@ntelos.net	1022 Sheridan Ave., Charlottesville 22901	Albemarle County Intern

References Cited

Kitchin, Jessica. May 1, 2006. Land-Use Program Proves Divisive: A Break for Small Farmers or a Speculator's Subsidy? *Daily Progress*.

Pothukuchi, K. 2004. Community Food Assessment: A First Step in Planning for Community Food Security. *Journal of Planning Education and Research* 23:356-377.

Pothukuchi et al. 2002. What's Cooking In Your Food System: A Guide to Community Assessments. Community Food Security Coalition.

Sustainable Agriculture Education. December 2005. Urban Edge Agricultural Parks Toolkit. In conjunction with the USDA Risk Management Agency, Community Outreach and Assistance Partnership Program.

Additional Reading

Hallsmith, Gwendolyn. 2003. The Key to Sustainable Cities: Meeting Human Needs, Transforming Community Systems. New Society Publishers.

Kaufman, Jerome, editor. June 2004. *Journal of Planning Education and Research*. Special issue devoted to Community Food Systems. Vol. 23, No. 4.

Lappé, Frances Moore and Anna Lappé. 2003. Hope's Edge: The Next Diet for a Small Planet, Tarcher/Putnam.

Salatin, Joel. Jan 2006. Pasteurizing Animals: The Key to a Sustainable and Healthy Agriculture. *A Voice for Eco-Agriculture*. 36(1).

Other Resources

(Note: Adapted from VABF Local Food Systems Conference. Compiled by: Keith Richards, Community Food Program Manager, Southern SAWG; P.O. Box 324, Elkins, AR 72727; 479-587-0888; keith@ssawg.org)

Regional/State Groups

Virginia Association for Biological Farming. <http://www.vabf.org>.

Virginia Cooperative Extension

Virginia Department of Agriculture and Consumer Services

Virginia Department of Health's Nutrition Services Team. <http://www.vahealth.org/nutrition/>.

Virginia Foundation for Agriculture in the Classroom <http://www.agintheclass.com/>

USDA Farm Service Agency. <http://www.fsa.usda.gov/pas/aboutus.htm>.

Groups Providing Guidance and Reference Material

Acres USA.

www.acresusa.com.

American Planning Association (APA): *Environment, Natural Resources and Energy Division*.

Contact: Deanna Glosser, Ph.D., Environmental Planning Solutions, Inc.;

dglosser@insighttbb.com.

This division of APA has developed a Food Planning Section and a concurrent listserv.

ATTRA.

www.attra.ncat.org. 800-346-9140.

Offers a wealth of free information about sustainable agriculture, a resource guide for Farm-To-School and Farm-To-Institution Programs called *Bringing Local Food to Local Institutions*, and an on-line database of local food directories.

Community Food Security Coalition.

Venice Beach, CA. www.foodsecurity.org. 310-822-5410.

Offers resources on all aspects of community food security including Community Food Assessments, Farm-to-School programs, and food policy.

COMFOOD is an electronic mail list created to link individuals and organizations involved with or interested in community food security: <http://www.foodsecurity.org/list.html>

Local Harvest.

Santa Cruz, CA. www.localharvest.org. 831-475-8150.

Has a comprehensive listing of farms, farmer's markets, Community Supported Agriculture programs, restaurants, and food co-operatives in the United States. Any farm can be added to the list for free.

National Farm To School Network: *Center for Food & Justice*.

Occidental College, CA. www.farmtoschool.org

Has information on state programs, offers workshops on the subject at hand, and has extensive links to resources such as case studies, evaluation studies, "how to" manuals, and other general guides for selling locally.

Robyn Van En Center for CSA Resources.

Chambersburg, PN. www.csacenter.org. 717-264-4141 x3352.

A comprehensive resource center for Community Supported Agriculture information that also offers a farm directory, publications, and technical assistance.

Southern SAWG.

www.ssawg.org. keith@ssawg.org. 479-587-0888.

Gives information about community food systems, educational events, farmers' stories, resources, and much more. *Food Security Begins at Home: A Handbook for Creating Community Food Coalitions & Farmer Projects in the South* is available for free online or for \$10 in a CD format.

World Hunger Year Food Security Learning Center.

www.worldhungeryear.org/fslc.

This center includes a huge amount of resources and information on Community Food Assessments, Community Gardens, Community Supported Agriculture, Farm-to-Cafeteria, Farmer's Markets, and Food Policy Councils.

Groups Working on Specific Community Food Systems

Appalachian Sustainable Agriculture Project.

Asheville, NC. www.asapconnections.org. info@asapconnections.org. 828-236-1282.

Similar to Communities Involved in Sustaining Agriculture, this non-profit organization is located in Western North Carolina. The project's best-known program is the Appalachian

Grown local food campaign; they also have a Farm-to-School support program called Growing Minds that is an effort to network and support Farm-to-School initiatives.

Appalachian Sustainable Development.

Abington, VA. www.appsusdev.org. 276-623-1121

ASD has two main focus areas, Sustainable Forestry and Wood Products, and Sustainable Agriculture. The Sustainable Woods program operates a wood-processing center that supports local production of environmentally friendly lumber, harvested through the use of ASD's sustainable forestry standards.

Appalachian Harvest is a network of certified organic family farmers in southwest Virginia and northeast Tennessee who have come together to make locally grown, organic produce available in area supermarkets

Communities Involved in Sustaining Agriculture.

South Deerfield, MA. www.buylocalfood.com. 413-665-7100.

This organization has a "Be a Local Hero, Buy Local Food" campaign, as well as Farm2City, FarmShare, Farm-to-School, and Farm-to-Institution programs. The publication from this campaign is available for sale and entitled, *Harvesting Support for Locally Grown Food: Lessons Learned from the 'Be A Local Hero, Buy Locally Grown' Campaign*. Currently, more than 125 farms, eight farmer's markets, 45 grocery stores, and 12 restaurants have become members of the campaign. They cover all local farm products, from fruits and vegetables to dairy, poultry, forestry and fiber products.

Farmers' Fresh Food Network.

Carrollton, GA. www.farmersfreshfood.com. 256-449-9417.

This network is a cooperative of 24 smaller-scale sustainable farmers, started in 2003. Markets include a collective CSA, a cooperative stand at two farmer's markets (six markets per week in season), and sales to restaurants. Organizations such as Georgia Organics, Georgia Sierra Club, Slow Food Atlanta, Alabama Sustainable Agriculture Network, and Weston Price Foundation members have promoted and supported their efforts.

FoodRoutes Network.

Millheim, PA. www.foodroutes.org. 814-349-6000.

Provides resources and support for "buy local" campaigns.

GROWN Locally Cooperative.

Postville, IA. www.grownlocally.com. sunspot@netins.net. 563-864-3847.

A 16-member producer cooperative, started in 1998; provides Farm Shares, Food Basket, and institutional sales programs. Farmer members are located in a three-county area of rural Northeast Iowa. A wide variety of apples, beef, chickens, eggs, flowers, goat cheeses, herbs, honey, pork, raspberries, soap strawberries, turkeys, and vegetables are produced and sold.

Institute for Agriculture Trade and Policy.

Minneapolis, MN. www.iatp.org/foodandhealth. 612-870-3418.

This institute compiled a report called *Healthy Food, Healthy Hospitals, Healthy Communities* that includes eight case studies of hospitals that are increasing access to local, healthy food for patients, staff, and surrounding communities.

Kerr Center for Sustainable Agriculture.

Poteau, OK. www.kerrcenter.com. mailbox@kerrcenter.com. 918-647-9123.

This organization's website give information on Oklahoma Farm-to-School programs, the Oklahoma Food Cooperative, the Oklahoma Food Connection guide, and the Oklahoma Food Policy Council.

North American Farmers Direct Marketing Association (NAFDMA) Farmer's Market Coalition.
www.nafdma.com.

NAFDMA provides documents, practical information, and resources for farmer's markets.

Oklahoma Food Cooperative.

Oklahoma City, OK. www.oklahomafood.coop. 405-613-4688.

Started in 2003, the co-operative plays the role of an agent between farmers and consumers, facilitating the ordering, delivery of, and payment for Oklahoma foods between the two. This cooperative's website has information about their local food network, plus articles and resources for local food. They currently have over 500 members, including both farmers and consumers. Membership is open to anyone in the state of Oklahoma.

REAP Food Group.

Madison, WI. www.reapfoodgroup.org. info@reapfoodgroup.org.

This group serves a 17-county area in Southern Wisconsin. It produced a local food guide—the *Fresh Farm Atlas*, in both print and on-line versions. REAP Food Group also hosts the *Food For Thought Festival* each year to educate people about food issues and the importance of buying local and manages a farm-to-school project called the *Wisconsin Homegrown Lunch*, jointly with the University of Wisconsin Center for Integrated Agricultural Systems. REAP Food Group takes a long-term, systematic approach to developing Madison schools as stable markets for local farmers.

Whole Farm Cooperative.

Long Prairie, MN. www.wholefarmcoop.com. whlefarm@earthlink.net. 320-732-3023.

This co-operative has 30 producing members, a Congregational Supported Agriculture program, and internet sales. Goods include beef, birdhouses, buffalo, cheese, chicken, eggs, grains, honey, maple syrup, pork, turkey, vegetables, and other farm-made items.