

**THE INFRASTRUCTURE OF FOOD
PROCUREMENT AND DISTRIBUTION:**
*Implications for Farmers
in Western North Carolina*

Prepared for

Appalachian Sustainable Agriculture Project



by
Allison S. Perrett
April 2007

This report examines the food industry in the United States and its implications for farmers in Western North Carolina who want to grow for and sell to local markets. The first part of the report examines the broad structure of food procurement and distribution. Subsequent sections examine procurement and distribution systems of particular commodity segments (produce, beef, and dairy) and the local infrastructure for direct marketing and food processing. In the context of Western North Carolina, this report focuses on the existing infrastructure of food procurement and distribution. Local patterns of distribution are presented as models and are based on current but not complete knowledge of existing systems with the potential to accommodate more local food with further development. Data on local systems are drawn from participant observation; from formal and informal interviews with local producers, processors, and wholesalers; and from local news outlets.

The Food Industry

To eat is to participate in a global food system. Over 800 million tons of food are shipped around the world annually¹. Food today travels an average of 1500 miles from harvest to table, a distance that is representative of the industrialization and globalization of the food supply and the dearth of knowledge consumers have about how and who is producing, processing, and transporting the food that they eat². From grower to consumer, food often changes hands a dozen times or more³, moving along a food supply chain that links producers, packers, shippers, food manufacturers, wholesale distributors, food retailers, and consumers. With this modern industrialized agricultural system, the farmer is no longer at the center of the production process; farming is just one component of a complex agribusiness system comprised of agricultural inputs, farm production, processing, distribution, and consumption.

Agricultural industrialization, which emerged in the United States at the beginning of the twentieth century, transformed food production⁴. Characterized by mechanization, use of chemicals, and food manufacturing, it is a model of food production that focuses on the production of large quantities of uniform products at the cheapest price possible. Producers purchase more non-farm inputs (machinery, fertilizers, agrichemicals, etc) to increase output. Increased output lowers commodity prices and forces “inefficient” producers out of business.

Over the past four decades, concentration in the ownership and management of food production has dramatically restructured the agricultural and food industry in the United States and globally. Through horizontal and vertical integration⁵, fewer but larger

¹ Halweil, B. 2002. *Home Grown: The Case for Local Food in a Global Market*. Worldwatch Paper 163 Worldwatch Institute, pg. 17.

² Jack Kloppenburg, J., J. Hendrickson, and G. W. Stevenson. 1996. Coming into the Foodshed. *Agriculture and Human Values* 13:33-42.

³ Ibid.

⁴ Stull, D. D., and M. J. Broadway. 2004. *Slaughterhouse Blues: The Meat and Poultry Industry in North America*. Belmont, CA: Thomson Wadsworth.

⁵ With horizontal integration, companies expand ownership or control across one stage of food production to produce or control a larger share of a particular commodity; with vertical integration a single corporation expands ownership or control into a number of stages of product production, from the basic raw materials for agricultural production to processing.

companies have come to dominate each stage of production, processing, and distribution⁶. Through mergers and acquisitions and fortified by farm policy, companies achieve economies of scale to produce or control a larger share of particular commodities. With economies of scale, companies are able to achieve cost advantages and undercut competitors by forcing the price of commodities below the cost of production. Cost advantages are achieved through larger-scale production; an increase in the number of units produced results in a decrease in the cost of producing each unit⁸.

In the United States, the transformation of agriculture through consolidation has been dramatic, so much so that the government has considered eliminating “farming” as a census category⁹. At one time the United States was a nation of farmers. In 1920 there were 6.5 million farms, and farm residents accounted for nearly 30 percent of the country’s population¹⁰. In 1991, the Bureau of the Census estimated the farm population at 1.9 percent of the total population and at that point stopped publishing estimates of farm resident population. This decision reflects both the decreased statistical significance of the farm population and the decreased economic and social significance of farm residence. In the industrial agricultural model, the farm owner, the farm manager, and the farm worker are all different people.

In contrast to the decline in farm numbers and farm population, farm size, measured in average acres per farm, has increased three-fold from 146 acres in 1900 to over 440 acres in 2002¹¹. Large commercial farms—defined as those with annual sales above \$250,000—produce about 70 percent of total farms sales but only represent 7 percent of all US farms. The share of production for smaller family farms—defined as those with annual sales less than \$250,000—dropped from 40 percent in 1989 to about 26 percent in 2003¹².

The trend toward larger farms is tied directly to profit margins and to the U.S. system of farm subsidies, which rewards gross output and encourages a “get big” strategy. On average smaller farms have negative farm operating profits and frequently combine on-farm income with income from off-farm sources^{13 14}. As farm size increases, profit margins also increase. Larger farms average an operating profit margin of greater than

⁶ Grey, M. A. 2000. The Industrial Food Stream and Its Alternatives in the United States: An Introduction. *Human Organization* 59:143-150.

⁷ Heffernan, W. D. 2000. "Concentration of Ownership and Control in Agriculture," in *Hungry for Profit: The Agribusiness Threat to Farmers, Food, and the Environment*. Edited by J. B. F. Fred Madgoff, Frederick H. Buttel, pp. 61-75. New York: Monthly Review Press.

⁸ Stull and Broadway 2004

⁹ McMichael, P. 2000. "Global Food Politics," in *Hungry for Profit: The Agribusiness Threat to Farmers, Food, and the Environment*. Edited by F. Madgoff, J. B. Foster, and F. H. Buttel, pp. 125-143. New York: Monthly Review Press, pg.135.

¹⁰ Gardner, B. L. 2002. *American Agriculture in the Twentieth Century: How It Flourished and What It Cost*. Cambridge, MA: Harvard University Press, pg. 50-51.

¹¹ USDA/Economic Research Service, <http://www.ers.usda.gov/AmberWaves/June05/Indicators/onthemap.htm>.

¹² MacDonald, J., R. Hoppe, and D. Banker. 2006. *Growing Farm Size and the Distribution of Farm Payments*, *Economic Brief Number 6*. USDA/Economic Research Service.

¹³ Jones, C. A., H. El-Osta, and R. Green. 2006. *Economic Well-Being of Farm Households*, *Economic Brief Number 7*. USDA/Economic Research Service.

¹⁴ MacDonald, Hoppe, and Banker 2006

10 percent¹⁵, but this profitability is tied to a large extent to farm commodity programs. By their nature, commodity programs encourage farmers to expand operations in order to obtain more acres and higher guaranteed government payments. In addition to leading to the concentration of production in the hands of fewer and fewer farms, this subsidy system—applied primarily to five crops (corn, wheat, soybeans, cotton, and rice)—benefits the operations of food manufacturers and other food marketers who have access to a steady supply of cheap farm commodities, which reduces costs and boosts profits. Artificially cheap corn, for example, underwrites the ‘supersizing’ of fast food for processors¹⁶ as well as the production of high fructose corn syrup and ethanol.

Consolidation and supply chain management strategies

Consolidation at one point in the food chain stimulates consolidation at other stages in the food chain^{17 18}. To maintain bargaining power with other stages of the food supply chain that are undergoing consolidation, producers and processors, wholesalers, and retailers increase the size of their operations to guarantee market outlets and to capture efficiency gains and lower procurement costs by doing business with fewer numbers of customers¹⁹²⁰. As previously noted, in production, the largest farms produce about 70 percent of total farms sales but only represent 7 percent of all US farms. In food manufacturing, the top 20 companies’ market share increased from 36 percent of industry sales in 1987, to almost 44 percent in 1992, to 51 percent in 1997²¹. In the wholesaling sector, the top four broadline wholesalers—which distribute a full line of food and nonfood products—increased from 26 percent of the market share in 1987 to nearly 41 percent of the market in 1997²². In food retailing, the top ten grocery store chains accounted for nearly 70 percent of sales in 2005 compared with 53 percent in 1999²³.

To further streamline product procurement and distribution and facilitate greater bargaining power, food companies ground their business practices in the logistics of supply chain management. Supply chain management strategies forge one-on-one (vertical) relationships between dominant food companies, formally linking producers, processors, wholesalers, and retailers^{24 25}. Meat processing firms increasingly contract

¹⁵ MacDonald, Hoppe, and Banker 2006

¹⁶ McMichael, P. 2004. Global Development and the Corporate Food Regime. *Paper presented at the Sustaining a Future for Agriculture Conference, Geneva, November 16-19 2004.*

¹⁷ Halweil 2002.

¹⁸ Harris, J. M., P. Kaufman, S. Martinez, and C. Price. 2002. *The U.S. Food Marketing System, 2002. Competition, Coordination, and Technological Innovations into the 21st Century.* Economic Research Service/USDA. Electronic document, <http://www.ers.usda.gov/publications/aer811/>, pg. 2.

¹⁹ Eastwood, D., J. Brooker, C. Hall, E. Estes, T. Woods, J. Epperson, and F. Stegelin. 2004. *A Marketing Systems Approach to Removing Distribution Barriers Confronting Small-Volume Fruit and Vegetable Growers.* University of Georgia. Electronic document, http://web.utk.edu/~brooke00/RESEARCH/SCSB_TN_s222.pdf, pg. 2.

²⁰ Harris, J. M., P. Kaufman, S. Martinez, and C. Price 2002, pg. 2.

²¹ Harris, J. M., P. Kaufman, S. Martinez, and C. Price 2002.

²² Harris, J. M., P. Kaufman, S. Martinez, and C. Price 2002, pg. 66.

²³ ProduceMarketingAssociation. 2006. *Food Industry Consolidations.* Produce Marketing Association. Electronic document, http://www.pma.com/Template.cfm?Section=Industry_Fact_Sheets&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=58&ContentID=4407.

²⁴ Hendrickson, M., W. D. Heffernan, P. H. Howard, and J. B. Heffernan. 2001. Report to the National Farmers Union. Consolidation in Food Retailing and Dairy: Implications for Farmers and Consumers in a Global Food System. Department of Rural Sociology, University of Missouri.

with producers, for example, to provide them with livestock. Large producers want the assurance that comes from dealing with a guaranteed market and processing firms want a guaranteed supply to keep their operations running efficiently. Retailers and suppliers are also becoming increasingly interdependent. In this relationship buyers and suppliers co-manage store inventory through electronic surveillance of consumer buying practices. Cutting edge information technologies like electronic data interchange (EDI)²⁶, efficient consumer response (ECR)²⁷, and continuous replenishment programs (CRP)²⁸ streamline product procurement and distribution enabling suppliers and retailers to respond more quickly to the demands of the marketplace²⁹.

Value chains

Supply chain management activities link the value chains that transform raw materials and components into finished products for consumers. With increased consumer demand for convenience foods, food manufacturing—which adds economic value to agricultural products through processing and packaging—has significantly increased in importance. The goal for food companies is to simultaneously maximize value creation while minimizing costs through supply chain management practices like inventory reduction, increasing the speed of transaction by exchanging data in real-time, and increasing sales by implementing customer requirements more efficiently.

With the increasing role of food manufacturing, farmers are receiving dwindling proportions of what consumers pay for food products at the retail level. Overall, the farm value share of the food dollar—the economic return farmers receive for the farm products they sell—decreases as the degree of processing increases and, concomitantly, as the distance between producers and consumers increases. In 1980, out of the \$264 billion American consumers spent on food, overall farmers received \$82 billion or 31 percent of the total³⁰. In 2004, farmers' share dropped to about 20 percent of the \$789 billion spent on food³¹. The remaining 80 percent was absorbed by middlemen (processors, wholesalers, distributors, and retailers) and reflects value added as labor, transportation, packaging, advertising, and other marketing costs that accrue in transforming farm commodities into food products and meals^{32 33}.

²⁵ Kaufman, P. 2000. *Consolidation in Food Retailing: Prospects for Consumers & Grocery Suppliers*. Economic Research Service/USDA. Electronic document, <http://www.ers.usda.gov/publications/agoutlook/aug2000/contents.htm#four>, pg. 19.

²⁶ EDI is the electronic exchange of information between two companies relative to things like pricing, promotion, invoices, shipping notices. This instant paperless transmission improves the flow of information and assists with scheduling and inventory.

²⁷ ECR is a system that has the capacity to track patterns of food sales with unprecedented detail; it allows retailers to respond quickly to consumer desires in the selection and stocking of the most profitable items.

²⁸ CRP describes the practice of partnering among distribution channel members. CRP has changed the traditional replenishment process from distributor-generated purchase orders (based on economic order quantities) to the replenishment of products based on actual and forecasted product demand.

²⁹ Kaufman 2000, pg. 19.

³⁰ EconomicResearchService. 2006. *Food Market Structures*. USDA. Electronic document, <http://www.ers.usda.gov/Briefing/FoodMarketStructures/>.

³¹ Ibid.

³² Davis, D. E., and H. Stewart. 2002. Changing Consumer Demands Create Opportunities for U.S. Food System. *FoodReview* Spring 2002:19-23.

³³ Elitzak, H. 2001. *Food Marketing Costs at a Glance*. USDA/Economic Research Service.

Challenges to small and mid-size farmers

The current structure of the food system, dominated by smaller and smaller numbers of companies, poses serious challenges to small and mid-size farmers. Larger packers, wholesale distributors, and retailers do not see viable opportunities in working with smaller food producers who cannot meet the supply volumes, post-harvest handling requirements, or the technology to produce case-ready products for retail³⁴. Large companies want to buy from large suppliers and vertically integrated supply systems shut out smaller farmers as well as smaller scale food businesses.

The growing dominance of large grocery retailers in the food system in recent years has especially engendered a shift in the mechanics of food distribution³⁵. As retailers are growing through mergers and acquisitions, they are developing their own vertically integrated distribution systems with large food manufacturers and producers. The growing prominence of self-distributing retailers, which manage their own trucking fleets, warehouses, and buying offices, is impacting the viability of wholesale markets, where retailers traditionally purchased their supplies. As food manufacturers vie for bargaining power with large food retailers, small and mid-size processors are absorbed into an increasingly smaller number of firms³⁶. Retailer fees, i.e., advertising and failure fees and slotting allowances where suppliers pay for the privilege of stocking their products on shelves, marginalize smaller farmers and smaller scale food businesses unable to assume additional costs^{37 38}. One estimate speculates that 50 to 75 percent of the total net profit for large retailers like Kroger and Walmart comes from these kinds of retailer fees³⁹.

The growth and consolidation in the foodservice industry, which includes establishments that dispense fully prepared meals and snacks for on-premise or immediate consumption⁴⁰, also poses serious challenges to smaller farmers and small-scale food businesses. With consumers eating outside of the home or taking ready-to-eat foods back to their homes about 50 percent of the time, the food service industry has grown to a \$420 billion industry⁴¹. As with large food retailers, foodservice businesses are seeking efficiency gains and lower procurement costs by doing business with fewer numbers of suppliers. Broadline wholesalers, which carry a full range of food and nonfood products, account for 50 percent of foodservice distribution sales⁴². SYSCO Corporation, for example, is a broadline foodservice distributor that supplies products to restaurants, schools, healthcare facilities, colleges, and corporate worksites. It supplies nearly

³⁴ Eastwood, D., J. Brooker, C. Hall, E. Estes, T. Woods, J. Epperson, and F. Stegelin. 2004. *A Marketing Systems Approach to Removing Distribution Barriers Confronting Small-Volume Fruit and Vegetable Growers*. University of Georgia. Electronic document, http://web.utk.edu/~brooke00/RESEARCH/SCSB_TN_s222.pdf.

³⁵ Hendrickson, Heffernan, Howard, and Heffernan 2001.

³⁶ Harris, J. M., P. Kaufman, S. Martinez, and C. Price. 2002. *The U.S. Food Marketing System, 2002. Competition, Coordination, and Technological Innovations into the 21st Century*. Economic Research Service/USDA. Electronic document, <http://www.ers.usda.gov/publications/aer811/>.

³⁷ Halweil 2002.

³⁸ Hendrickson, Heffernan, Howard, and Heffernan 2001.

³⁹ Hendrickson, Heffernan, Howard, and Heffernan 2001, pg. 12.

⁴⁰ Harris, Kaufman, Martinez, and Price 2002, pg. 36.

⁴¹ Ennis, J. 2006. *Final Report the Value Chain Partnerships for a Sustainable Agriculture Project and the Regional Food Systems Working Group*. Cooperative Development Services and Leopold Center.

⁴² Harris, Kaufman, Martinez, and Price 2002, pg.14.

400,000 restaurants in the United States alone ranging from franchise restaurants and fast food enterprises, to five star and ethnic restaurants, to local “mom and pop” establishments. A \$30.5 billion company, SYSCO offers its foodservice customers one-stop shopping and a comparative price advantage on a full line of inexpensive food and nonfood products from paper supplies and dishwashing detergent to bulk food items like flour and rice, fresh produce, meats, and thousands of heat and serve items⁴³.

This kind of industry concentration and integration that formally links buyers and sellers undermines the ability of small and mid-size farmers to access markets. Large companies have a difficult time sourcing local food because they deal in huge quantities, and their distribution systems are highly centralized.

The Produce Industry

Over the past two decades, amid concerns over health and the sheer availability of convenient pre-cut fruits and vegetables, the consumption of fresh produce has increased significantly^{44 45}. Today, the average consumer eats more than 725 pounds of fresh and processed fruits and vegetables, a 23 percent increase over 558 pounds in 1980^{46 47}. Produce sales today contribute to a greater share of grocery chain store profits—relative to gross sales—than any other grocery department⁴⁸. Supermarket produce departments have expanded dramatically nearly doubling the number of items stocked, from about 200 items in 1980 to nearly 400 items in 2003^{49 50}.

The produce supply chain

On its way to consumers, produce moves through three primary marketing channels: grower-shippers, wholesalers, and retailers⁵¹. In addition to handling their own produce, grower-shippers may also handle produce from other farmers. They own the packing sheds that assemble, wash, and pack produce and perform the post-harvest handling and packing activities, which contribute to the final cost of fresh produce at the retail level. From grower-shippers, produce moves to wholesalers, self-distributing retailers, and foodservice companies.

Wholesalers, the next vertical stage in produce distribution, can be merchant wholesalers or brokers. In moving produce from grower-shippers to various retail outlets, merchant wholesalers take title of the product they handle; brokers, while also serving as

⁴³ Boser, U. 2007. Every Bite You Take: How Sysco Came to Monopolize Most of What You Eat. Slate.com. Electronic document, <http://www.slate.com/id/2138176>.

⁴⁴ Eastwood, D., J. Brooker, C. Hall, E. Estes, T. Woods, J. Epperson, and F. Stegelin. 2004. *A Marketing Systems Approach to Removing Distribution Barriers Confronting Small-Volume Fruit and Vegetable Growers*. University of Georgia. Electronic document, http://web.utk.edu/~brooke00/RESEARCH/SCSB_TN_s222.pdf.

⁴⁵ Handy, C. R., P. R. Kaufman, K. Park, and G. M. Green. 2000. Evolving Market Channels Reveal Dynamic US Produce Industry. *FoodReview* 23:14-20.

⁴⁶ Eastwood, Brooker, Hall, Estes, Woods, Epperson, and Stegelin 2004.

⁴⁷ Handy, Kaufman, Park, and Green 2000.

⁴⁸ Eastwood, Brooker, Hall, Estes, Woods, Epperson, and Stegelin 2004.

⁴⁹ Eastwood, Brooker, Hall, Estes, Woods, Epperson, and Stegelin 2004.

⁵⁰ Handy, Kaufman, Park, and Green 2000, pg. 11.

⁵¹ Handy, Kaufman, Park, and Green 2000.

intermediaries for grower-shippers or for wholesale or retail buyers of produce, do not take ownership of the produce.

The majority of wholesalers are merchant wholesalers, which include broadline grocery wholesalers, broadline foodservice wholesalers, and specialized fresh fruits and vegetables wholesalers⁵². In serving retail stores and foodservice establishments, specialized produce wholesalers deal exclusively with fresh fruits and vegetables. Broadline foodservice and grocery wholesalers procure a wide range of food as well as nonfood products. Foodservice wholesalers procure products specifically for foodservice establishments including restaurants, hospitals, hotels, and schools. From 1987 to 1997, wholesaler produce sales to foodservice customers increased from 8.4 percent to over 21 percent. By contrast, the role of grocery wholesalers as mediators between manufacturers and retail food stores is on the decline.

Today, more produce is shipped directly from grower-shippers to large retailers that operate their own distribution centers. These self-distributing grocery retailers, which also have their own buying offices and trucking fleets, circumvent wholesalers and forge direct supply agreements with grower-shippers⁵³. In 1987, just over 38 percent of all wholesaler produce sales went to retail stores; in 1997 that number declined to 34.6 percent.

Produce distribution in Western North Carolina

In Western North Carolina, fresh produce reaches consumers through direct markets (farmers' tailgate markets, Community Supported Agriculture (CSAs), roadside stands), local retail outlets (restaurants, grocery stores, specialty food stores, bed and breakfasts), and through institutional outlets including school and hospital cafeterias.

Western North Carolina producers can access niche markets by selling directly to consumers or in some cases by delivering directly to small and independently-owned retail outlets that retain the flexibility to buy directly from producers. Market segments that have embraced supply chain management practices—larger grocery store and restaurant chains and institutional buyers, for example—pose the greatest challenges to the small and mid-size producers that dominate farming in Western North Carolina⁵⁴. With respect to larger retail food outlets, the ability of farmers to access these markets depends on a retailer's system of procurement and distribution and the ability of farmers to satisfy volumes and price points, desire for year round produce, and post-harvest handling and packaging requirements. In addition, the use of centralized warehousing systems for distribution to individual chain outlets limits the ability of individual farmers to deal directly with individual restaurants or grocery stores in the region.

Despite these constraints, regionally-based systems of food procurement and distribution in Western North Carolina hold the potential to help local farmers overcome market

⁵² Handy, Kaufman, Park, and Green 2000.

⁵³ Handy, Kaufman, Park, and Green 2000.

⁵⁴ *Western North Carolina Food and Farm Economy*. 2007. Appalachian Sustainable Agriculture Project: Asheville, NC.

constraints. Local packing houses, wholesale distributors, farmer cooperatives, systems of backhauling, and a state owned farmers' market are present in the region and provide viable models for increasing the distribution of local food to local markets. With increasing demand for local food, these systems are potential points of intervention that with further development could create space for smaller local farmers in a tightly integrated market.

Backhauling:

In Western North Carolina, a distribution infrastructure exists for backhauling farm products to grocery store chain outlets in the region. To maximize fleet utilization on return trips and expand the spectrum of product movement, self-distributing retailers that operate their own buying offices and own refrigerated trucking fleets are able to pick-up produce from farmers for further distribution to individual store locations⁵⁵.

Pooling of production:

Other possible distribution opportunities exist with locally-based packing houses, wholesale distributors, and farmer cooperatives. All three have the benefit of pooling production, which gives smaller local farmers the ability to capture the marketing and distribution advantages that come with larger scale. Wholesalers and packing houses, accustomed to marketing fresh produce, have the knowledge needed to meet the specifications of particular market segments and the infrastructure to cool, grade, package, and transport local farm products to different locations throughout the region. As models of distribution, packing houses and wholesale operations also have the added potential to meet the desire of buyers for year round supplies because, in addition to handling local product, they are also handling the produce of growers from other parts of the country⁵⁶.

While less able to deal with seasonality constraints, local farmer cooperatives have other advantages that enable them to enhance their collective power. In pooling their resources and sharing marketing, transportation, and distribution costs, cooperatives have the potential to help individual farmers overcome market constraints associated with the lack of post-harvest handling and packaging equipment and adequate transportation to deliver to different markets. In Western North Carolina, a number of farmer cooperatives have banded together to obtain the infrastructural equipment necessary to meet the standards of different market segments and reach institutional markets like hospitals and school cafeterias and larger grocery retail chains.

The Western North Carolina Farmers' Market:

The Western North Carolina Farmers' Market is one of five farmers' markets owned by the state of North Carolina and operated by the North Carolina Department of Agriculture and Consumer Services (NCDA&CS). Presently, the market sells a mix of local and nonlocal farm products but, as a means of local food distribution, it holds great potential.

⁵⁵ See *Shelton Farms: Finding a Space in the Middle of Agriculture* in Appendix B for a case study that highlights backhauling

⁵⁶ See *Mountain Food Products: Serving the Local Community* in Appendix B for a case study of a local wholesale distributor

The Western North Carolina Farmers' Market is a marketing hub where many of the region's residents, visitors, and small food businesses go to find farm-fresh food. The market is one of the largest venues for fresh fruits and vegetables in the region and includes both retail and wholesale operations. Farmers have opportunities for large and small scale, direct sale and wholesale, and year-round marketing of farm products. On the market's site, farmers can sell direct to consumers or to small food related businesses. Farmers can also sell wholesale to vendors in the retail section of the market—where shoppers can purchase a variety of goods including fresh produce, baked goods, meats and cheeses, and trees and plants—and to packers, wholesalers, and farmer cooperatives who operate out of the market and sell to grocery stores, restaurants, institutions, and roadside markets in Western North Carolina and other regions.

The Beef Industry

Beef production is the largest segment of the U.S. agriculture economy⁵⁷. In 2005 farm cash receipts from cattle and calves were estimated at \$49.5 billion, and the retail value topped \$79 billion⁵⁸. Since 1998, consumer demand for beef has increased 20 percent; consumer spending has grown \$20 billion since 1999⁵⁹.

In the United States there are about 800,000 beef producers, with different types of producers present in all 50 states⁶⁰. Beef operations vary in size from just a few cows to thousands of cows. Half of all cattle raised in the United States are produced by farmers and ranchers with fewer than 100 head; almost one-third have less than 50 head⁶¹. Five percent of operations have more than 1,000 head, but they finish more than 80 percent of all grain fed cattle.

The beef supply chain

The beef supply chain encompasses cow-calf operations, feedlot operations, packing plants and processors, wholesale distributors, and retailers and foodservice operators. The process begins with cow-calf production; in this kind of operation, the product is the calf. Cow-calf producers breed animals and raise them on range or open pasture land for up to one year. From there, calves are sold to other beef cattle operations. When cattle have reached a suitable weight, “feeder” weight, they are sold through livestock auction markets in different locations across the United States, which transfers ownership to feedlot operators. Most calves go to feedlot operations located in the Midwest, the Southwest, and the Pacific Northwest where there are abundant supplies of grain to continue feeding the calves⁶². In feedlot operations cows are finished in three to six months, weighing between 1000 and 1200 pounds. Some calves, before going to feedlot operations, may be backgrounded. Backgrounder calves are lighter in weight and are purchased by “stockers” another type of intermediary that puts calves on pasture until they are ready to go to feedlots. Feedlots have marketing arrangements with meat packing plants, and once cattle have reached slaughter weight, they are purchased by the

⁵⁷ Stull and Broadway 2004.

⁵⁸ Cattle-Fax, <http://www.cattle-fax.com/>

⁵⁹ Cattle-Fax, <http://www.cattle-fax.com/>

⁶⁰ Cattle-Fax <http://www.cattle-fax.com/>

⁶¹ National Cattlemen's Beef Association, <http://www.beef.org/>

⁶² National Cattlemen's Beef Association, <http://www.beef.org/>

plants. Packing facilities process the animals and most fabricate major primal cuts into subprimal cuts or market-ready cuts that are sold to retailers and foodservice operators. Some plants sell primal cuts to other intermediary processors who process them into individual steaks and roasts or ready-to-cook marinated and pre-cooked items. From beef packers and processors, beef products move directly to retailers and foodservice operators by means of intermediary wholesale distributors.

Beef distribution in Western North Carolina

Of the approximately 63.5 millions of pounds of beef produced in Western North Carolina, only a small proportion of it is actually finished and processed in the region and marketed locally. The beef industry in the region is dominated by cow-calf production. Operations are generally small, and the number of full-time beef producers is also small because cow-calf operations are not profitable. In general, beef is a low value animal, and cow-calf producers are more susceptible to the cycles of supply and demand that determine commodity pricing⁶³. Despite the low profitability, these kinds of operations have remained more stable in the mountains of Western North Carolina than other types of farming endeavors because the care of the calves themselves is less demanding and many farmers are not dependent on these operations for their primary source of income⁶⁴. Most beef producers in the mountains sell calves to supplement other off-farm income.

In Western North Carolina, grain-fed beef is cost prohibitive. In terms of finishing beef cows, it is more economically efficient to take the animals to the source of feed one time versus importing load after load of feed to finish the cows in a grain deficient region like Western North Carolina. Beef finished and processed in the region is often grass-fed or grass-finished beef. Local producers use independent processing facilities, and they sell their product directly from on-farm stores and area farmer tailgate markets or through local retail outlets.

With growing demand for naturally raised beef products by health conscious consumers and consumers concerned with animal welfare, there is potential for expanding local markets for locally produced grass-fed products^{65 66}. Much of the land in Western North Carolina is suited for grazing, and producers, motivated by local consumer interest, are exploring the possibility of expanding into grass-fed beef market. Farmer groups are looking at the economic feasibility and experimenting with rotational grazing; one farmer group is experimenting with locally grown corn silage, which would supplement the diet of pasture-raised animals.

Despite interest by producers and consumers, the infrastructural obstacles for proper handling and distribution are considerable. Grass-fed and grass-finished beef requires not only land for pasture but on-farm animal handling facilities, access to a USDA-inspected

⁶³ Clause, R. 2006. *Commodity Beef Profile*. Agricultural Marketing Resource Center, Iowa State University.

⁶⁴ Boyle, J. 2007. *Like Other Farming, Beef Cattle Future is Waning in the Mountains*. Asheville Citizen Times, Asheville, NC.

⁶⁵ Freeman, S. 2007. "Livestock Farms Grow in WMass," in *The Republican online*, <http://www.masslive.com/springfield/republican/index.ssf?base/news-1/117308602410530.xml&coll=1>.

⁶⁶ Ness, C. 2007. "Au Revoir to Foie Gras: Wolfgang Puck is Biggest Name Yet to Ban Delicacy from His Restaurants' Menus," in *SFGate.com*, <http://www.sfgate.com/cgi-bin/article.cgi?file=/c/a/2007/03/22/MNG4COPHSG1.DTL>.

processing facility that adheres to all of the federal regulations from animal treatment to water quality to packaging and labeling, transportation to and from meat processing facilities, and adequate cold storage for processed meat products. Operations that finish beef also require cow-calf producers learn and adopt new practices (more closely managed grazing and pasture management, for example). The absence of a USDA-inspected slaughter facility in the immediate region is a significant impediment to local beef production. Currently, grass-fed producers transport animals to independent processing facilities located outside the region from one to two hours away or more. The additional costs, i.e., time and money, associated with travel for processing makes this option unappealing for many producers.

While limited on-farm processing is an option for poultry and rabbit, on-farm processing for beef producers is not feasible given the strictness of the regulations. The absence of independent meat processing facilities means that farmers must incur additional costs to travel to processing facilities. Given the small number of producers that finish beef in the region, there is some doubt as to whether there is enough current production to support a centrally-located beef processing facility. With more processors, however, more beef producers may enter the market.

The Poultry Industry

The United States is the largest producer of poultry in the world and the second largest exporter⁶⁷. Annually, U.S. poultry meat production exceeds 40 billion pounds; the total farm value is over \$20 billion. Broiler production constitutes the majority of this value.

The U.S. poultry industry is deeply vertically integrated and the vast majority of U.S. poultry producers are contract growers for poultry processors⁶⁸. Poultry processors contract with growers to raise birds in accordance with specific standards. Processors supply the animals, feed, and veterinary medicines; growers provide the labor, facilities (“grow-out houses”), and utilities—heating, cooking, feeding, and watering systems. Processors schedule the transportation of the birds from the farm to the processing plant. Tyson Foods, one of the largest poultry processors⁶⁹, owns breeder farms and hatcheries and produces its own animal feed⁷⁰. Birds are processed in its own facilities and then warehoused in one of two Tyson-owned distribution centers. Thirty million pounds of product are shipped from one of these two facilities each week and distributed to retail and foodservice locations throughout the country by Tyson’s own trucking fleet.

Poultry distribution in Western North Carolina

North Carolina is one of the top broiler-producing states⁷¹. Wilkes County in Western North Carolina, where Tyson Foods operates three processing facilities, is one of the

⁶⁷ USDA ERS Briefing Room. Poultry and Eggs. 2007. <http://www.ers.usda.gov/Briefing/Poultry/>

⁶⁸ Ibid.

⁶⁹ Hendrickson, M., and W. Heffernan. 2005. *Concentration of Agricultural Markets*. Department of Rural Sociology, University of Missouri. Electronic document, <http://www.foodcircles.missouri.edu/consol.htm>.

⁷⁰ Tyson Foods. 2007. <http://www.tyson.com/Corporate/AboutTyson/LiveProduction/Chicken.aspx>

⁷¹ USDA ERS Briefing Room. Poultry and Eggs. 2007.

largest producers of poultry in the Eastern United States; in 2005, the county produced 90,000,000 broilers⁷².

Poultry producers in the region selling to local markets raise birds in small quantities on pasture and can sell direct to consumers at farmers' tailgate markets or from on-farm stores. As with beef, the absence of an independent processing facility in the region is a significant barrier to the expansion of poultry production for local markets. A separate group is exploring the feasibility for establishing a regional, independent USDA-inspected small animal processing facility for processing poultry and rabbit meat⁷³.

Expanding poultry production may also include work focused on policy change. Processing requirements for poultry vary from state to state. North Carolina state guidelines limit the number of small animals that can be processed on-farm to 1,000 chickens or rabbits or 250 turkeys per year per farm, an option not viable for larger-scale producers of poultry⁷⁴. Increasing bird limitations could significantly increase production. In Virginia, for example, farmers are able to process up to 20,000 birds on-farm⁷⁵.

The Dairy Industry

Total annual production of milk in the United States is about 170 million pounds⁷⁶. In 2004, farm cash receipts from milk sales were estimated at \$27.4 billion, accounting for about 11.4 percent of total cash receipts from agricultural commodities⁷⁷.

Regardless of size, most dairy farms in the United States are family-owned and managed, and farmers typically belong to producer-owned cooperatives⁷⁸. Dairy cooperatives pool members' milk and move it to processors and manufacturers. Because milk production varies by day and week and according to seasonal fluctuations in weather and feed conditions, cooperatives pool raw milk to meet the demand of fluid milk processors.

Dairy farms are more specialized than most other types of farm operations and accordingly have particular equipment and facility needs. Dairy farmers require facilities to milk cows and to store milk and cool milk. They also need the equipment to test milk for antibiotics, bacteria, and somatic cell counts before it is picked up by milk haulers, who are either independent operators and charge farmers a pick up fee for their services or who are vertically integrated with dairy processing facilities.

Dairy farmers also tend to have fewer sources of off-farm income than other farmers making them more dependent on farm-generated income⁷⁹. Taken together, these factors

⁷² NCDA. Agricultural Statistics. County Statistics. Wilkes County. <http://www.agr.state.nc.us/stats/cntysumm/wilkes.htm>.

⁷³ More information is available from the Center for Assessment and Research Alliances, Mars Hill College.

⁷⁴ NCDA. Meat and Poultry Division. 2007. http://www.ncagr.com/vet/meat_poultry/index.htm.

⁷⁵ VDACS. Regulatory Services. Meat and Poultry Program Definitions 2007, <http://www.vdacs.virginia.gov/meat&poultry/definitions.shtml>

⁷⁶ USDA ERS Briefing Room. Dairy. 2007, <http://www.ers.usda.gov/Briefing/Dairy/.htm>.

⁷⁷ Miller, J. J., and D. P. Blayney. 2006. *Dairy Backgrounder*. USDA/Economic Research Service.

⁷⁸ Miller, J. J., and D. P. Blayney. 2006. *Dairy Backgrounder*. USDA/Economic Research Service.

⁷⁹ Miller, J. J., and D. P. Blayney. 2006. *Dairy Backgrounder*. USDA/Economic Research Service.

make dairy farms particularly susceptible to price volatility, which has been severe in the industry in recent years⁸⁰.

The dairy industry has experienced similar consolidation and concentration as other farm sectors. From 1970 to the early 2000s, the number of dairy operations in the U.S. decreased from about 650,000 operations to about 90,000 and average herd size increased five-fold from 20 cows to 100 cows. Each year more milk is produced on fewer farms. While operations with 500 or more milk cows represented only 3.7 percent of all dairy farms in 2004, they produced 47 percent of the milk. Consolidation has also occurred in processing and fewer firms are processing raw milk into fluid milk and other manufactured products.

The dairy industry has also seen changes in dairy product demand. In 1975, fluid milk products represent 50 percent of milk utilization. Today, about one-third of milk is processed into fluid milk and cream products, and the remaining two-thirds is processed into a variety of dairy products including cheese, yogurt, butter, ice cream, dry or condensed milk, and whey products used primarily as ingredients in processed foods. Cheese in particular has become the dominant end-product for raw milk; a little over half the milk supply is processed into nine billion pounds of cheese annually⁸¹. Increasing demand for cheese as well as for butter and other manufactured dairy products reflects a shift in the dairy market from retail sales to restaurant and food processor sales⁸². Food processing and away-from-home eating now account for the majority of dairy product usage.

Dairy distribution in Western North Carolina

Dairy farming in Western North Carolina is primarily a family operation, and most dairy farms in the region are relatively small. In a recent survey of dairy farmers in the region, three-quarters of farmers completing the survey reported an average herd size of less than 200 cows⁸³.

Annually, the dairy industry in Western North Carolina produces over 252 million pounds of milk⁸⁴, and fluid milk is marketed cooperatively. Dairy farmers in the region typically belong to one of three dairy cooperatives: Dairy Farmers of America, a national cooperative; Piedmont Milk Sales Inc.; and the Maryland and Virginia Milk Producers Coop. Fluid milk or cheese processors contract directly with these organizations for much larger amounts of milk than any individual farmer is able to provide. When there is a shortage of milk availability in the region (due to seasonal fluctuation in production levels, for example) milk is imported from other areas of the country; local farmers are required to pay part of the transportation costs for this importation. In Western North

⁸⁰ See Miller, J. J., and D. P. Blayney. 2006. *Dairy Backgrounder*. USDA/Economic Research Service for a more in-depth discussion.

⁸¹ USDA ERS Briefing Room. Dairy. 2007. <http://www.ers.usda.gov/Briefing/Dairy/>

⁸² Miller and Blayney 2006, pg. 3-4.

⁸³ A Survey of Licensed Dairy Farms in Western North Carolina. 2007. Appalachian Sustainable Agriculture Project. Asheville, NC.

⁸⁴ USDA Census of Agriculture data

Carolina, milk haulers are independent operators who charge the farmers a pick up fee for their services.

Western North Carolina is unique in that the infrastructure for large-scale milk processing and distribution still exists. Milkco, an Asheville-based milk processing and packaging plant, produces 53 million gallons of milk annually. Milk processed at Milkco provides one regional grocery store chain with nearly all of its fluid milk needs and rough estimates are that 80 percent comes from local dairies in the region⁸⁵. Western North Carolina is also home to a large cheese processor, Ashe County Cheese Store, which produces about 2.3 million pounds of cheese annually. Rough estimates are that 75 percent of the raw milk comes from local dairies.

Some small dairy farmers have focused on reaching niche markets with the production of value-added products like artisan cheese, yogurt, butter, and frozen dairy products. These producers sell directly to consumers at tailgate markets or on-farm stores or by delivering directly to local retail grocery outlets.

Direct Markets

Despite consolidation in the food industry and the increasing distance between consumers and farmers with brokers, wholesalers, supermarkets, and other middlemen, direct marketing of farm products through farmers' markets, Community Supported Agriculture (CSA), roadside stands, and on-farm sales continue to be valuable market outlets for farmers in the United States.

Farmers' Markets

As a means of food distribution, farmers' markets provide important urban-rural linkages, and in eliminating middlemen, enable farmers to command higher prices for their goods. Over the past decade the number of farmers' markets in the United States has grown alongside increasing consumer interest in finding fresh products from the farm^{86 87 88 89}⁹⁰. The USDA reports that the number of farmers' markets increased almost 20 percent, from 1,755 in 1994 to 4,385 in 2006⁹¹. The results of a 2006 USDA National Farmers Market Survey shows that in addition to growth in the number of farmers' markets, 25 percent of vendors from surveyed farmers' markets relied on these markets as their sole source of farm-based income⁹².

Farmers' markets have specific infrastructural requirements. In cooperation with local businesses and city or county governments, they require a permanent and convenient

⁸⁵ Personal Communication. 2007. Buddy Gaither, President of Milkco. Asheville, NC.

⁸⁶ Ecotrust. 2003. *2003 Annual Report*. Ecotrust. Online document, <http://www.ecotrust.org>.

⁸⁷ Locally Grown Food Strategic Positioning Research. 2004. Research Inc: Atlanta, GA. (Appendix A)

⁸⁸ DeCarlo, T.E., Franck, V.J., Pirog, R. *Consumer Perceptions of Place-Based Foods, Food Chain Profit Distribution, and Family Farms*. 2005. Leopold Center for Sustainable Agriculture. Ames, IA.

⁸⁹ Pirog, R. *Ecolabel Value Assessment: Consumer and Food Business Perceptions of Local Foods*. 2003. Leopold Center for Sustainable Agriculture. Ames, IA

⁹⁰ Pirog, R. *Ecolabel Value Assessment Phase II: Consumer Perceptions of Local Foods*. 2004. Leopold Center for Sustainable Agriculture. Ames, IA.

⁹¹ USDA AMS. Farmers Market Growth. http://www.ams.usda.gov/farmersmarkets/Farmers_MarketGrowth.htm.

⁹² USDA AMS News Release 2006. <http://www.ams.usda.gov/tmd/MSB/>

location with adequate space for vendor stalls, parking for shoppers, and in some cases restroom facilities. For uncovered markets like many of those in Western North Carolina, vendors need tents, tarps, or some other kind of shelter to protect products and delineate their stalls, and they need tables or shelving to display their products, as well as adequate refrigeration and storage units for products like meat, eggs, and cheese.

Farmers' Markets in Western North Carolina

Thirty-four farmers' tailgate markets are in operation in Western North Carolina⁹³. Markets in Buncombe, Madison, and Yancey Counties are members of the Mountain Tailgate Market Association, a farmer-run organization that formed to pool resources and promote local markets in the three-county area⁹⁴.

Recent surveys of tailgate market shoppers and vendors indicate opportunities for market growth^{95 96}. This potential is tied partially to increasing the number and location of markets convenient to consumers throughout the region. The results of a 2004 survey to shoppers at tailgate markets in Buncombe and Madison Counties indicated, for example, that the majority of tailgate market shoppers lived within five miles of specific markets.

Vendor surveys conducted in 2003 at Buncombe county markets pointed to a high level of interest in a new, centrally located grower market in Asheville. The central market, which is scheduled to open in 2008 and accommodate up to 100 vendors, has the potential to significantly expand direct market opportunities for a broad range of local farmers and attract a wide range of consumers from inside and outside the region.

Increasing market opportunities for farmers' markets may also encompass expanding the reach of local markets into low-income market segments. Current USDA programs like the Women, Infants, and Children (WIC) Farmers Market Nutrition Program and the Senior Farmers Market Nutrition Program enable program beneficiaries to shop at farmers' markets for fresh foods. Nationwide the USDA reports that almost 60 percent of markets participate in farmers market nutrition programs⁹⁷. The USDA's Food and Nutrition Service reveals that coupons redeemed through the Farmers Market Nutrition Program resulted in over \$23 million in revenue for farmers in 2005⁹⁸.

In Western North Carolina, farmers' markets in eight Western North Carolina counties participate in the WIC program; markets in four counties participate in the Senior Farmers Market Program. Program recipients in these counties received coupons to purchase locally grown fresh fruits and vegetables directly from farmers or from local farmers' markets.

Any vendor or market can apply to accept food stamps. Accepting food stamps, however, can be logistically problematic for markets that traditionally operate on a cash

⁹³ This number includes farmers' markets listed in ASAP's Local Food Guide.

⁹⁴ See the breakout box on the Mountain Tailgate Market Association in main the report, pg 25.

⁹⁵ *A Market Analysis of Tailgate Farmers' Markets of Buncombe and Madison Counties*. 2004. Appalachian Sustainable Agriculture Project. Asheville, NC.

⁹⁶ *Results from a Survey of Farmers' Tailgate Market Vendors in Buncombe and Madison Counties*. 2003. Appalachian Sustainable Agriculture Project, Asheville, NC.

⁹⁷ USDA AMS. Farmers Markets. <http://www.ams.usda.gov/farmersmarkets/FMstudystats.htm>.

⁹⁸ FNS USDA. <http://www.fns.usda.gov/wic/FMNP/FMNPfaqs.htm>.

economy. In the Food Stamp Program, EBT (Electronic Benefit Transfer) cards, which are similar to ATM cards, replaced paper coupons. To streamline the process, some farmers' markets have established point-of-sales (i.e., swiping) terminals. Because farmer's markets and farm stands usually operate in environments without access to electric power or land-lines are not readily available, the use of these terminals is not always feasible. In the eastern part of the state, markets in Carrboro, Hillsborough, and Durham began accepting EBT cards last year as part of a pilot program⁹⁹. To maintain the program, it will cost markets about \$4000 to staff a central terminal where EBT and debit cards are swiped and hand out the tokens that those customers use to make purchases.

Food Processing in Western North Carolina

With processing capabilities for meats, dairy products, and fruits and vegetables comes the ability to increase farm profitability with value-added products, to mitigate seasonality constraints, and to expand into new markets. With about half of each food dollar spent in the United States on convenient, ready-to-eat food, the loss of local and regional processing capabilities is significant. Processing facilities, for example, may play an important role in allowing producers access to the foodservice industry. A recent study conducted by the Leopold Center, which features the SYSCO Corporation, suggests that the foodservice industry is a viable market for smaller farmers and food businesses¹⁰⁰. In trying to differentiate its products from the products of other foodservice distributors, SYSCO seeks business relations with small to midsize food entrepreneurs. Furthermore, SYSCO's procurement and distribution system enables individual distribution centers to operate independently and make purchasing decisions at the local level. The relative flexibility of this system has enabled at least one college in the Western North Carolina to obtain locally grown produce. With strong consumer demand for convenience foods and growth in the foodservice industry, processing facilities provide farmers with means to expand into other market segments.

Despite the loss of large-scale processing options in Western North Carolina, significant pieces of processing infrastructure still exist in the region. The processing facilities available for dairy have already been noted. Processing options for fruit and vegetables within the region include small-scale operations like using one of the region's commercial shared-use kitchens to larger-scale operations. At least two large-scale juice processors are still operating in Western North Carolina; although both processors are currently importing concentrated juice, they provide opportunities for expanding local fruit processing.

For smaller-scale processing, the region has a number of shared-used kitchens where farmers, chefs, and other food entrepreneurs can rent kitchen space and equipment by the hour. While the long term financial viability of these types of facilities is unknown, shared-use facilities provide food entrepreneurs access to licensed processing facilities

⁹⁹ Hoppenjans, L. *Food stamps get an 'in' at farmers markets*. NewsObserver. <http://www.newsobserver.com/102/story/551328.html>.

¹⁰⁰ Ennis 2006.

with little capital investment; setting-up a commercial kitchen that meets specific federal and state health regulations can be expensive. Additionally, shared-use kitchens offer other services such as food safety training, access to technical information, guidance on product development, package design, sales and marketing assistance and training, and small business development and planning. In Western North Carolina, a number of food entrepreneurs looking to distinguish their products in the marketplace have chosen to source ingredients locally.

Conclusion

This report has examined the structure of the food industry and its implications for farmers in Western North Carolina that want to grow for a local market. With increasing concentration in the food system, smaller and smaller numbers of companies dominate each stage of food production. Supply chain management practices streamline systems of food procurement and distribution, and these vertically-integrated systems exclude smaller farmers as well as smaller-scale food businesses. Rebuilding the capacity for local food production and distribution depends on building the capacity for regional systems of food procurement and distribution.

This report has examined the procurement and distribution systems for produce, beef, poultry, and dairy products and has identified regional models of food distribution in Western North Carolina. Systems of backhauling, cooperative strategies that pool the resources and products of local farmers, and direct marketing channels have the potential to overcome the market barriers facing local farmers. Infrastructure interventions will include practical steps designed to make it easier for local farmers to sell their farm goods to local markets. Steps may involve adapting existing components of the food distribution system to accommodate local and establishing new facilities for local processing in the region.

- *Backhauling.* As demand for locally produced food increases, regionally based self-distributing grocery stores may provide a key element of local food procurement and distribution in Western North Carolina. Because backhauling meets the desire of self-distributing retailers to maximize efficiency, as a means of food distribution, retailers may have more incentive to develop backhauling systems.
- *Pooling production.* In meeting the requirements of larger-scale markets, packing houses, wholesale distributors, and farmer cooperatives provide local farmers with the infrastructure to meet the handling and packaging standards of particular market segments and overcome volume constraints. Packers and wholesalers, in working with producers from different regions, have the added potential of overcoming seasonal constraints and make it more convenient for grocery stores, restaurants, and institutional buyers—who are accustomed to and prefer the ease of buying from one or two larger suppliers—to support local.
- *Developing the capacity of the Western North Carolina Farmers Market.* As a well-established and centralized market, the Western North Carolina Farmers' Market represents a substantial piece of infrastructure for small and mid-size farmers in Western North Carolina who wish to sell their products locally. Beyond being a

sizable retail store for farm-fresh food, the market is a collection of many packers, wholesalers, and farmer cooperatives accustomed to marketing fresh produce.

- *Expanding local food distribution through direct marketing channels.* The proliferation of farmers' markets across the country signals growing demand for fresh local food. By eliminating middle men, direct marketing through channels like farmers' markets have the potential of returning more of the food dollar to farmers and increasing their economic viability. Expanding this means of food distribution will include increasing the number of markets and locations and will require the support and cooperation from city and county governments and local businesses. Expanding direct market opportunities for farmers must also look at ways to increase food access to low-income market segments through, for example, USDA programs like the Farmers Market Nutrition Program.
- *Building regional processing capabilities.* In re-appropriating the food market from large, distant food businesses, regional processing is a significant consideration. Efforts to recapture the market need to consider the convenience and product offerings consumers expect when they shop for food. With strong demand for ready-to-eat foods, processing capabilities make it possible for a broader range of consumers to buy local foods.