

West Virginia Food System

Opportunities and constraints in local food supply chains

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West Virginia Food System: Opportunities and constraints in local food supply chains

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TABLE OF CONTENTS

- FOREWORDVII**
- EXECUTIVE SUMMARY AND KEY FINDINGSIX**
- 1. INTRODUCTION 1**
- 2. BACKGROUND 5**
- 3. LOCAL FOOD SUPPLY CHAINS..... 9**
 - 3.1 PARTICIPANTS IN LOCAL FOOD SUPPLY CHAINS9
 - 3.2 DIRECT MARKETING SUPPLY CHAINS12
 - 3.3 INTERMEDIATED MARKETING SUPPLY CHAINS16
 - 3.4 MAINSTREAM MARKETING SUPPLY CHAINS28
- 4. PROCESSING FACILITIES 30**
 - 4.1 PACKING SHEDS30
 - 4.2 CO-PACKING FACILITIES31
 - 4.3 COMMUNITY KITCHENS32
 - 4.4 FOOD BUSINESS INCUBATOR KITCHENS33
 - 4.5 MEAT AND POULTRY PROCESSING FACILITIES.....34
- 5. AGGREGATION..... 36**
 - 5.1 FOR-PROFIT AGGREGATOR: FISH HAWK ACRES38
 - 5.2 COOPERATIVE MODEL: TUSCARORA ORGANIC GROWERS COOPERATIVE, INC.39
 - 5.3 INSTITUTIONAL LOCAL FOOD SUPPLIER: KILMER’S FARM MARKET40
- 6. DISTRIBUTION..... 42**
 - 6.1 LOCAL DISTRIBUTOR: JL FOODS.....42
 - 6.2 REGIONAL DISTRIBUTOR: COREY BROTHERS, INC.43
 - 6.3 REGIONAL DISTRIBUTOR: PARAGON FOODS.....44
- 7. RETAIL MARKETS 46**
 - 7.1 COMMUNITY-BASED LOCAL FOOD RETAIL STORES46
 - 7.2 MAINSTREAM MARKETS49
- 8. REGULATORY AND POLICY CONSIDERATIONS THAT IMPACT LOCAL FOOD SALES 52**
 - 8.1 WEST VIRGINIA DEPARTMENT OF AGRICULTURE CERTIFICATION PROGRAMS53
- 9. CONCLUSIONS AND RECOMMENDATIONS..... 55**
- REFERENCES..... 57**
- APPENDIX A : WEST VIRGINIA LOCAL FOOD RESOURCES 62**

TABLE OF TABLES

Table 1: Regulations, certifications, and requirements that impact local supply chains	52
Table 2: Local food system participants affected by regulations, certifications, and requirements.....	52
Table 3: Examples of requirements imposed by intermediary and mainstream buyers.....	53

TABLE OF FIGURES

Figure 1: Distribution of farms in West Virginia, 2007	1
Figure 2: Potential farmland, 2011	2
Figure 3: Farm size and sales of local foods in the United States.....	5
Figure 4: Number of West Virginia farms by value of sales, 2007	6
Figure 5: Example of a farm input, chicken feed, which can be purchased cooperatively to reduce costs	7
Figure 6: Typical mainstream supply chain.....	9
Figure 7: West Virginia–grown produce	10
Figure 8: Participants in a local food system and entities profiled in this report.....	11
Figure 9: Direct marketing supply chain	12
Figure 10: Locally produced Green Glades’ cheeses on display at the Morgantown Farmers’ Market	13
Figure 11: West Virginia farmers markets	14
Figure 12: Example of an intermediated supply chain	16
Figure 13: West Virginia–grown apples.....	17
Figure 14: Growth in the Fresh Fruit and Vegetable Program in West Virginia	18
Figure 15: Fayette County Schools' estimated seasonal demand for produce, 2011.....	19
Figure 16: West Virginia hospitals	21
Figure 17: Martinsburg Veterans Administration Medical Center’s local food purchases, 2009-11.....	22
Figure 18: Martinsburg VAMC’s local produce purchases from May 1 through October 15, 2011	23
Figure 19: Martinsburg VAMC’s Fourth of July cupcakes featuring local blueberries.....	24
Figure 20: Marion Ohlinger surrounded by herbs and peppers growing on Richwood Grill’s balcony.....	26
Figure 21: Bluegrass Kitchen’s estimated weekly local food purchases.....	27
Figure 22: Local foods display at a Giant Eagle grocery store in Morgantown.....	28
Figure 23: Display map of farms supplying local food to a Morgantown Giant Eagle in July 2012	29
Figure 24: Oliverio canned peppers displayed at a Kroger grocery store in West Virginia	31
Figure 25: Co-packing facilities and community kitchens available for rent	32
Figure 26: West Virginia grass-fed cattle	34
Figure 27: Production centers around which food hubs could be developed.....	37
Figure 28: Fish Hawk Acres’ supply chain	39
Figure 29: Derek Kilmer at the Kilmer packing facility.....	41
Figure 30: Corey Brothers’ demand for fresh produce during the West Virginia growing season.....	44
Figure 31: Paragon Foods’ “local foods” sourcing area	45
Figure 32: Tomatoes at the Barbour County Community Garden Market	47
Figure 33: The Wild Ramp storefront and fresh local herbs.....	48
Figure 34: West Virginia grocers by annual grocery sales	50
Figure 35: West Virginia products in a Kroger store in Morgantown	51
Figure 36: USDA organic seal	54

ABBREVIATIONS

AMS	USDA Agricultural Marketing Service
CAMC	Charleston Area Medical Center
CSA	community supported agriculture
ERS	USDA Economic Research Service
ES	executive summary
FDA	United States Food and Drug Administration
GAP	Good Agricultural Practices
GHP	Good Handling Practices
HACCP	Hazard Analysis and Critical Control Point
MCTC	Mountwest Community & Technical College
NASS	National Agricultural Statistics Service
NOP	USDA National Organic Program
NRCS	National Resource Conservation Service
PACA	Perishable Agricultural Commodities Act
PTI	Produce Traceability Initiative
TOG	Tuscarora Organic Growers Cooperative, Inc.
USDA	United States Department of Agriculture
USDVA	United States Department of Veterans Affairs
VAMC	Veterans Administration Medical Center
VHA	United States Veterans Health Administration
WV	West Virginia
WVDA	West Virginia Department of Agriculture
WVDE	West Virginia Department of Education
WVDHHR	West Virginia Department of Health and Human Resources
WVFMA	West Virginia Farmers Market Association
WVU	West Virginia University

FOREWORD

A strong, regionally-based food system can become a substantial source of economic growth for both rural and urban communities. As support for local food continues to grow, citizens, business people, farmers, extension agents, agencies, and nonprofits have begun to strategize about how West Virginia could better meet its own consumer demand for food. One part of this strategic process was the development of the “Road Map for the Food Economy” Charter, an action plan to help us all focus, measure, and celebrate our collective progress toward a stronger local food system. The Road Map offers a vision for West Virginia's local food economy and includes a Food Economy Score Card to help measure how statewide and local policies, programs, and community efforts are contributing to the strength of that food economy. Over 310 West Virginians contributed their ideas to the Road Map through a series of regional and statewide public meetings in 2011 and 2012. Organizations and individuals can read the Road Map, sign on to adopt its action plan, and access additional information at www.wvhub.org/wvffc/west-virginia-food-charter.

In our public forums, we heard loud and clear that building supply is often more challenging than building demand for local food in West Virginia. When we look at the number of willing buyers for local food, the future looks bright. For example, the West Virginia Department of Education this year committed \$250,000 in school food funds for local food purchases. Over a dozen county school systems have reported buying from local farms. The Martinsburg Veterans Administration Medical Center sees fresh, healthy meals as an ingredient of recovery for its patients, and has already spent over \$23,000 on local food. More restaurants are taking interest as well, and so are local consumers, as evidenced by the 93 farmers markets that now exist in the state. But those seeking to purchase local food sometimes run into challenges. Willing buyers often describe the lack of basic processing services, cooperative ordering platforms, and local food distributors as bottlenecks.

This report is the second in a series. The first, West Virginia Food System: Seasonal Production and its Impacts, looked at the economic benefits to be gained if more West Virginians consumed local fresh fruits and vegetables. Now we look at assets and barriers to moving local food from producers to consumers. We offer a snapshot of what buyers are looking for, what infrastructure already exists, and what needs to happen next. We profile successful businesses that process, aggregate, and distribute local food. We also investigate constraints to selling local food in larger quantities, and how these can be addressed.

A great deal of emphasis in West Virginia has been placed on promoting the sale of local food directly from the farmer to the consumer. Farmers markets, for example, have proved invaluable for many of the state's small farms. However, if the goal is to build local economies and create jobs by substituting a large portion of the state's \$8.9 billion food consumption with food produced in West Virginia, then local products need to travel to eaters through a much wider variety of avenues, including restaurants, cafeterias, and grocery stores.

The purpose of this report is to help readers understand the opportunities and constraints of meeting the growing demand for local food products in West Virginia, particularly at levels that extend beyond farm stands or farmers markets. The report uses numerous real-life examples to show what kinds of supply chain strategies are already working in the state. The directory in the appendix provides contact information for all of the aggregators, processors, and distributors that are profiled, as well as other businesses interested in working with local food.

The first half of the report (Sections 1-3) looks at how an increasing number of interested buyers have created the need for more coordinated, developed supply chains that move local food from farm to table while still capturing a fair portion of the consumer food dollar for farmers. These sections discuss the needs of farmers, the limitations of direct marketing as the sole marketing strategy for a farm business, and the types of food supply chains. Section 3 includes detailed profiles and purchasing needs of volume buyers that wish to purchase more local food.

The second half of the report (Sections 4-7) describes in detail the kinds of supply chain infrastructure that will be necessary in order to move more local food from producers to consumers in West Virginia: processing, aggregation, and distribution. These sections provide profiles of several businesses that are already dealing with local food and documents the opportunities and constraints they are facing.

The directory in Appendix A provides contact information for of the aggregators, processors, and distributors that are profiled in the report, as well as other businesses interested in working with local food.”

Readers are invited to use the report in several ways:

- to identify opportunities for policies and investments that would support stronger local food supply chains;
- to identify new business connections for farm or food businesses and to help tailor product offerings to the needs of particular buyers; and
- to identify collaboration opportunities for businesses in aggregation, processing, or distribution, so that local food supply chains across the state can become more interconnected and serve more people.

Experience shows us that the spirit of collaboration and information sharing has been a key part of the success of the local food movement in West Virginia—not just in getting traction with supportive agencies and consumers, but also in building the kinds of networks that make businesses successful. In keeping with this spirit of collaboration, if you encounter additional information or have a business that you would like to see included in future editions of the directory, we encourage you to contact the West Virginia Food & Farm Coalition.

We are grateful for the generous support from blue moon fund and the Claude Worthington Benedum Foundation, to Cheryl Brown and Daniel Eades of West Virginia University for their valuable advising, and to Downstream Strategies, LLC for bringing the report to fruition. With good information in hand, we are looking forward to a bright future for West Virginia’s farmers and eaters alike.



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EXECUTIVE SUMMARY AND KEY FINDINGS

This report is the second in a series that explores West Virginia’s local food system. The first report found that there is sufficient suitable agricultural land to expand production to meet West Virginians’ seasonal demand for fresh fruits and vegetables. This project examines West Virginia’s existing local food system infrastructure, including processors, aggregators, and distributors. Additional local food supply chain participants, including producers, intermediary buyers, and retail markets, were also studied. Drawing upon national, state, and local food systems literature; federal and state statistics and data; and extensive personal interviews, this report assesses West Virginia’s local food system infrastructure and existing supply chains to identify opportunities and constraints.

Finding 1: There is significant demand for local food in West Virginia, but increased production and stronger supply chains will be essential to meeting the demand

Individuals, schools, hospitals, restaurants, wholesale distributors, and retail markets throughout the state are increasingly interested in sourcing more locally grown and raised food. However, numerous people interviewed for this report, representing all stages of the supply chain, cited lack of sufficient production as the biggest gap in West Virginia’s local food system. Part of the challenge in ramping up West Virginia’s agricultural production is that producers face logistical constraints and marketing challenges in moving their products into geographic areas where demand for local food is high (see Figure ES-1), and to volume buyers whose buying requirements are more complex than those of other customers. These logistical constraints mean that even though statewide there is excess demand for local food, not all farmers currently have incentives to increase production. If stronger supply chains were in place to help farmers move their products to volume buyers and to customers in a wide geographic area, it would be easier to close the gap between demand and supply.

Figure ES-1: Customers wait in line to buy local food at the Morgantown Farmers’ Market



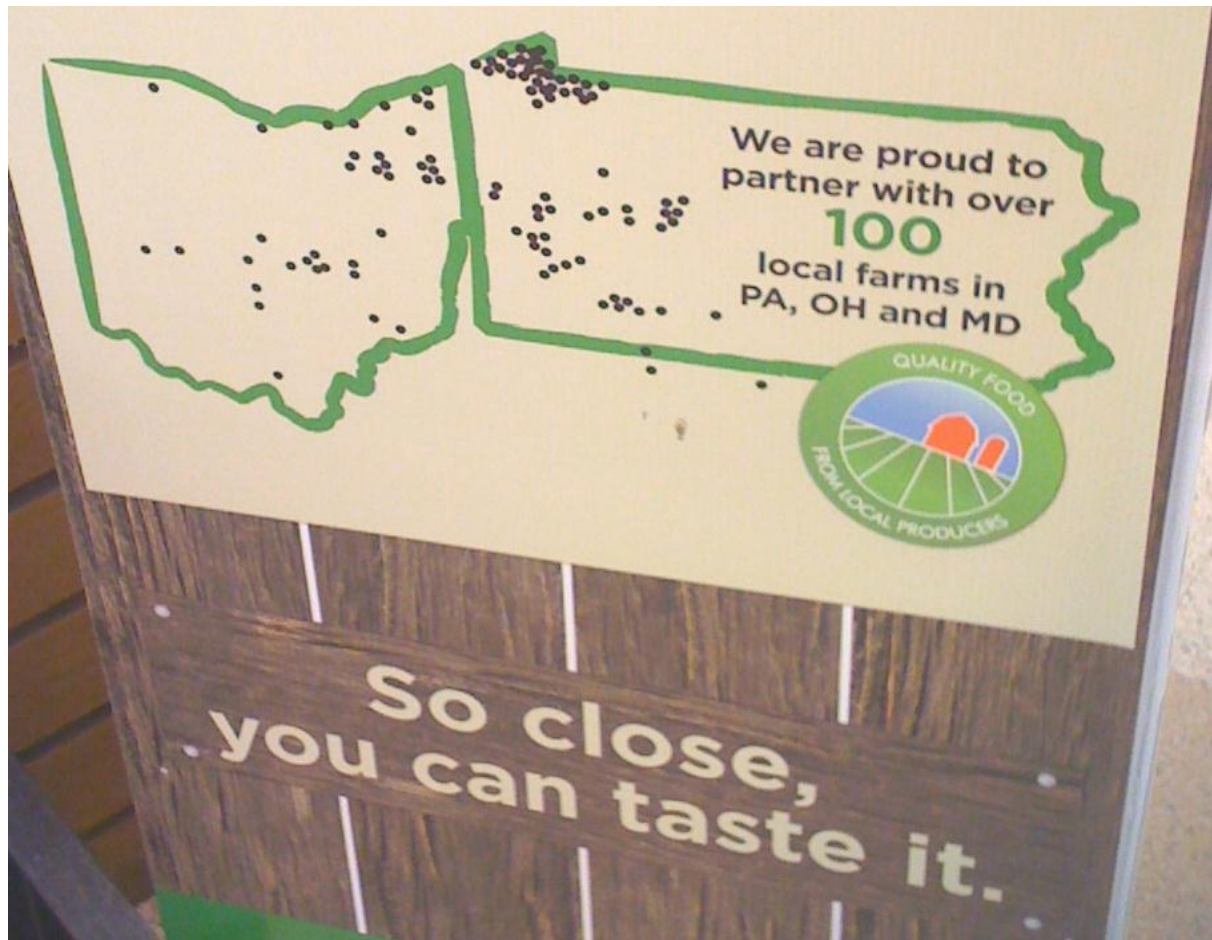
Finding 2: New marketing outlets and new local food supply chains are already starting to move more local food to West Virginia consumers

The number of farmers markets in West Virginia has grown significantly in recent years, creating new opportunities for producers to sell products through direct-marketing supply chains. Meanwhile, more local farmers are starting to sell to intermediary buyers, including schools and restaurants. In addition, several innovative aggregator-distributors (businesses that gather products from multiple producers to distribute to volume buyers) have begun distributing West Virginia–grown produce to parts of the state, including the Eastern Panhandle, the Charleston/Huntington area, and central West Virginia. However, whether due to lack of supply or local producers’ inability to meet quantity, certification, or other requirements imposed by large-scale buyers, few West Virginia producers are currently accessing mainstream marketing channels, such as chain retail grocers, as demonstrated by Figure ES-2.

Facts at a glance:

- Ninety-three farmers markets currently operate in West Virginia—almost a three-fold increase over the number in 2005.
- Five West Virginia–based aggregation hubs for local food were identified in this report.
- Thirteen of the conventional food distributors surveyed for this report expressed interest in purchasing and distributing local food in West Virginia, or are already doing so.

Figure ES-2: Local food display in a Morgantown Giant Eagle in July 2012



Finding 3: Volume buyers, including restaurants, hospitals, and schools, offer sales opportunities throughout the state

Throughout West Virginia, a growing number of restaurants, hospitals, and schools are sourcing food from local producers and aggregators. These buyers are dispersed throughout the state and provide producers in all areas of West Virginia access to high-volume wholesale markets.

Facts at a glance:

- Some restaurants working with local producers to increase supply are now able to source 50-80% of their food locally, depending on the season. For example, Bluegrass Kitchen purchases over 500 pounds of locally grown and raised food each week (see Figure ES-3).
- The Martinsburg Veterans Administration Medical Center spent nearly \$16,000 on local food in 2011, and that figure continues to grow annually (see Figure ES-4).
- From April through October 2011, Fayette County Schools purchased roughly 75,000 pounds of fresh produce that could have been produced in West Virginia during these months of the growing season (see Figure ES-5). Assuming these purchases are typical of schools throughout the state, potential purchases statewide during these same months could total almost three million pounds.
- The West Virginia Department of Education established a Local Foods Incentive Fund, in effect as of July 1, 2012, which earmarked \$250,000 to reimburse school systems for purchases of local foods.

Figure ES-3: Bluegrass Kitchen’s estimated weekly local food purchases

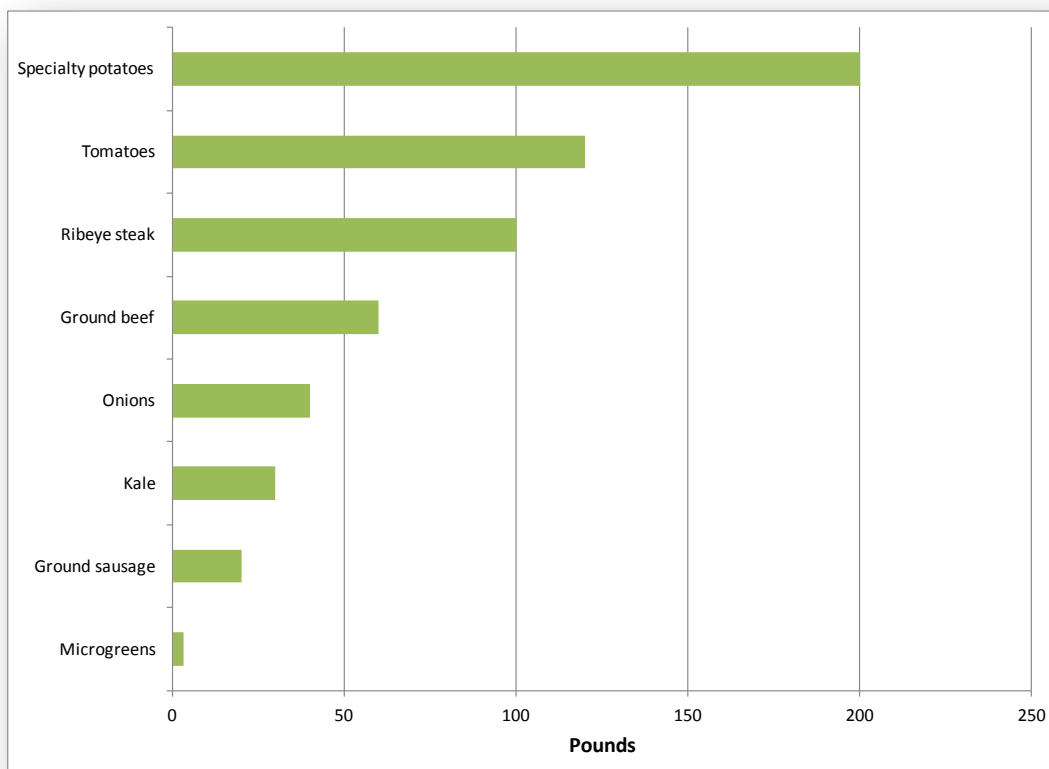


Figure ES-4: Martinsburg VAMC's local produce purchases from May 1 through October 15, 2011

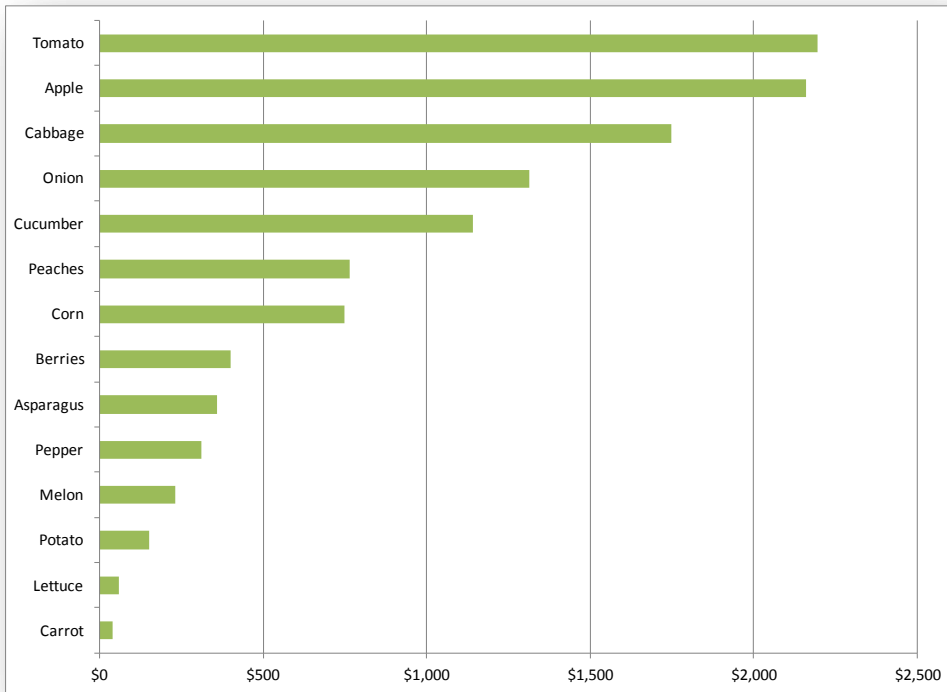
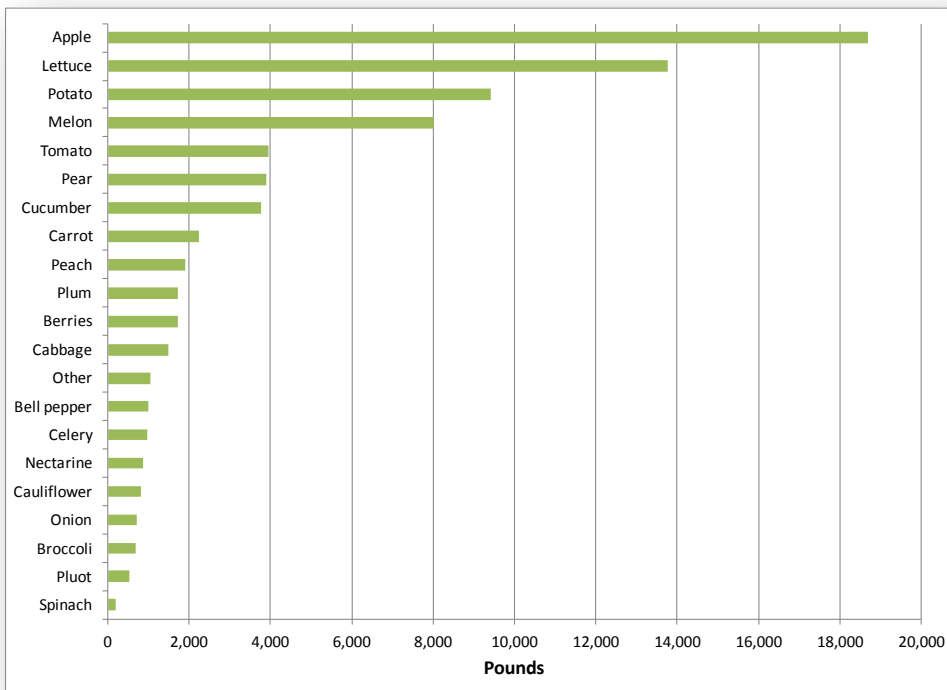


Figure ES-5: Fayette County Schools' seasonal demand for fresh produce, 2011



Finding 4: Regulations, certifications, and requirements often impact producers’ and other supply chain participants’ access to distribution channels and large markets

Numerous federal and state regulations impose requirements upon participants in the supply chain. Tables ES-1 and ES-2 provide summary information about these, and the Glossary provides definitions. These regulations address, among other things, food safety issues, fair trade practices, or traceability. Small producers, particularly those strictly direct-marketing products, may be exempt from certain regulations. However, in order to access new markets, small producers and other participants in local food supply chains will need to come into compliance with applicable regulations. In addition to government regulations, there are a variety of certifications that producers and other participants in the supply chain can voluntarily obtain. Table ES-3 provides examples of voluntary certifications required by intermediary and mainstream buyers.

Table ES-1: Regulations, certifications, and requirements that impact local supply chains

	State	Federal	Other	Mandated by law	Voluntary
USDA organic certification		✓			✓
Food establishment permit	✓			✓	
Food manufacturer permit	✓			✓	
GAP certification	✓	✓	✓		✓
GHP certification	✓	✓	✓		✓
HACCP plan		✓		✓	
Liability insurance			✓		✓
PACA license		✓		✓	
3 rd party certification under the Produce Traceability Initiative (PTI)			✓		✓
Meat distributor license	✓			✓	
Value-based certifications			✓		✓

Table ES-2: Local food system participants affected by regulations, certifications, and requirements

	Producer	Processor	Aggregator	Distributor	Retail market
USDA organic certification	✓	✓	✓	✓	✓
Food establishment permit	✓	✓	✓	✓	✓
Food manufacturer permit	✓	✓	✓	✓	✓
GAP certification	✓				
GHP certification	✓	✓	✓	✓	✓
HACCP plan	✓	✓	✓	✓	✓
Liability insurance	✓	✓	✓	✓	✓
PACA license			✓	✓	✓
3 rd party certification under PTI	✓	✓	✓	✓	✓
Meat distributor license			✓	✓	

Table ES-3: Examples of requirements imposed by intermediary and mainstream buyers

	USDA organic certification	GAP certification	GHP certification	Liability insurance	3 rd party certification under PTI
WV Department of Education					
Richwood Grill					
Tuscarora Organic Growers Cooperative, Inc.	✓				
Kilmer’s Farm Market				✓	
Corey Brothers, Inc.					
Paragon Foods		✓		✓	✓
Kroger					

Finding 5: Expanded food processing infrastructure could help food producers produce more high-value products and access more customers year-round

Processing facilities enable producers to market their products in different forms and to sell their products out of season (see Figure ES-6). In the broadest sense, processing facilities include packing sheds, processing facilities for value-added products (co-packing facilities, community kitchens, and food enterprise kitchen incubators), and slaughter and processing facilities for meat. Packing sheds and processing facilities enable producers to prepare goods for market or add value to raw agricultural products.

Figure ES-6: Value-added foods produced in West Virginia processing facilities



For the development of new products and enterprises that require food processing, West Virginia has:

- Nine value-added co-packers offering a variety of processing services on a fee basis. A co-packer generally uses the client’s ingredients, recipe, and packaging materials. Upon completion of the manufacture and packaging of the product, the client markets the finished goods
- More than 22 community kitchens offering aspiring food entrepreneurs the opportunity to experiment and develop a market for their products without investing their own capital in a food-manufacturing kitchen and equipment.
- Twenty-five federally inspected commercial meat processing plants, of which eight provide slaughter services. Meat from these plants can be sold commercially in West Virginia as well as in interstate commerce and foreign commerce. West Virginia also has 22 state-inspected commercial meat processing plants, of which 11 are licensed for slaughter. Meat from these plants can be sold commercially to most types of buyers within the state, but may not be sold across state lines.

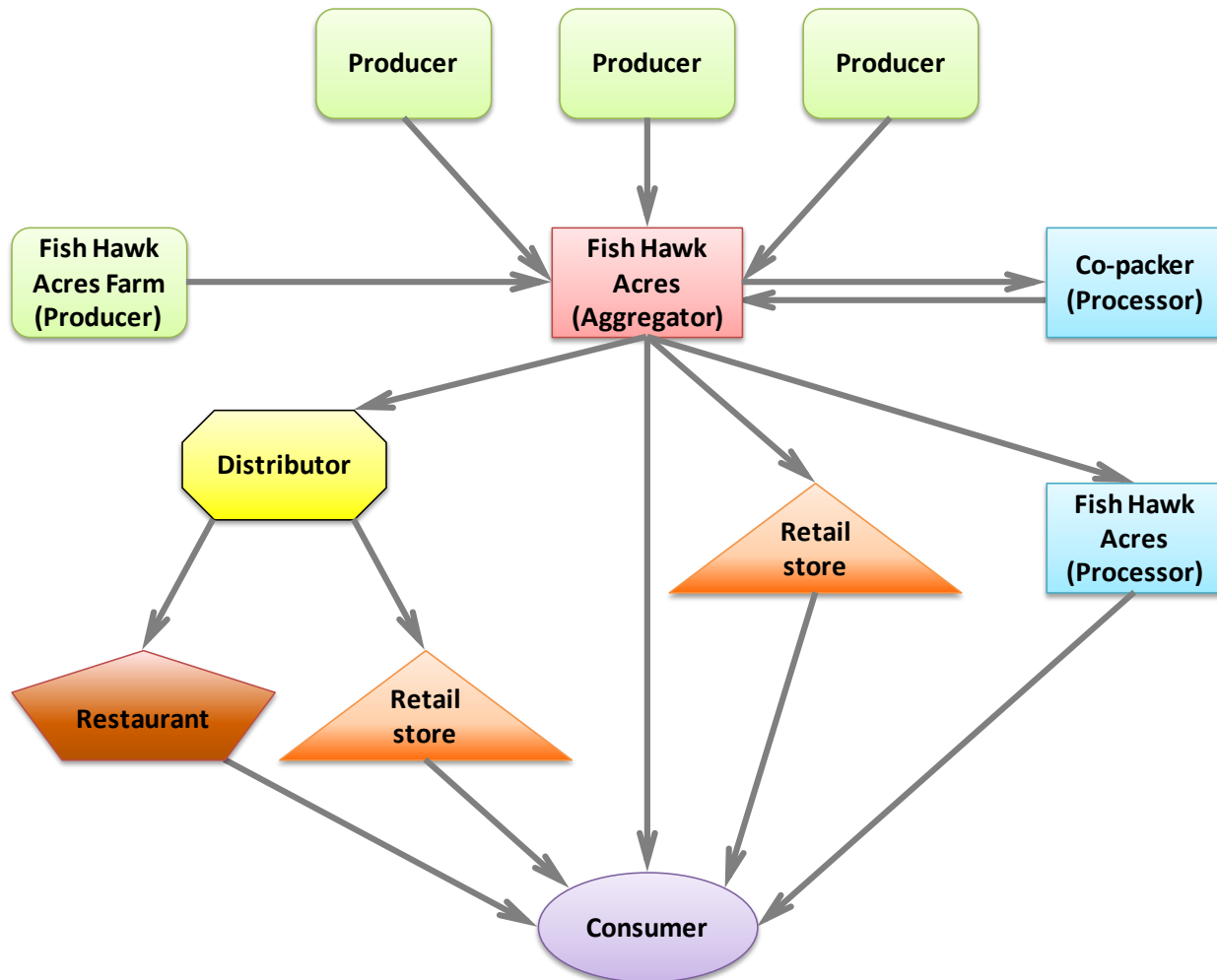
West Virginia lacks:

- Full-service food business incubator kitchens providing both processing infrastructure and business development assistance for new food producers. Other states, such as Ohio and North Carolina, have these types of facilities, but the story of Mountain Bounty Kitchen in Huntington (see p.33) illustrates the importance of building food business incubator kitchens to the appropriate scale.
- Packing sheds available for use by more than one producer to minimally prepare goods for distribution in West Virginia—a gap pointed out by several aggregators interviewed for this report.
- Small-scale poultry processing facilities—the only facility processing poultry in the state is owned by a fully-integrated producer that processes birds grown under contract (see p. 35). As a result, many poultry producers are taking advantage of a regulatory exemption that allows on-farm processing of fewer than 1,000 birds per year, but this limits small business growth.

Finding 6: Diversified business models may enhance local food businesses' chances of success

Due to the seasonal nature of local food, particularly fruits and vegetables, West Virginia's farmers and local food businesses can benefit from the development of diversified businesses models that generate income throughout the year. For example, a berry producer may direct-market fresh berries at local farmers markets in the summer, while also freezing berries to sell to local restaurants and processing a line of berry jams to sell in retail markets in the winter. In addition to offering a diversity of products, a local food business may diversify by engaging in several activities along the supply chain and working with a variety of buyers. For example, as shown in Figure ES-7, Fish Hawk Acres produces, aggregates, and processes local food, which is then distributed through various marketing channels, including direct-marketing, wholesale distribution, and sales to restaurants. Such diversification serves to minimize risk and create additional revenue-generating opportunities.

Figure ES-7: Fish Hawk Acres' diverse supply chain



Finding 7: The development of additional online and community-based local food retail stores could create additional sales opportunities for local producers and increase consumer access to local foods

Several West Virginia aggregators have found success marketing local foods online. Unlike farmers markets that are open for several hours per week, and generally only during the growing season, online markets provide consumers with year-round, convenient access to local foods. Community-based local food retail stores are also increasing access to local food for West Virginians in some areas, and, because community-based local food retail stores are often located indoors (see Figure ES-8) and can remain open year-round, they provide farmers with access to consumers during times when direct-marketing opportunities are not available. While the selection of fresh produce dwindles during the off-season, local eggs, meats, cheeses, value-added foods, and other local products are generally available year-round. Year-round access to markets may also incentivize local produce farmers to invest in season extension techniques that will enable them to grow throughout the year and incentivize the establishment of new food processing facilities to preserve West Virginia-grown produce for sale throughout the year.

Figure ES-8: Local foods displayed at the Barbour County Community Garden Market



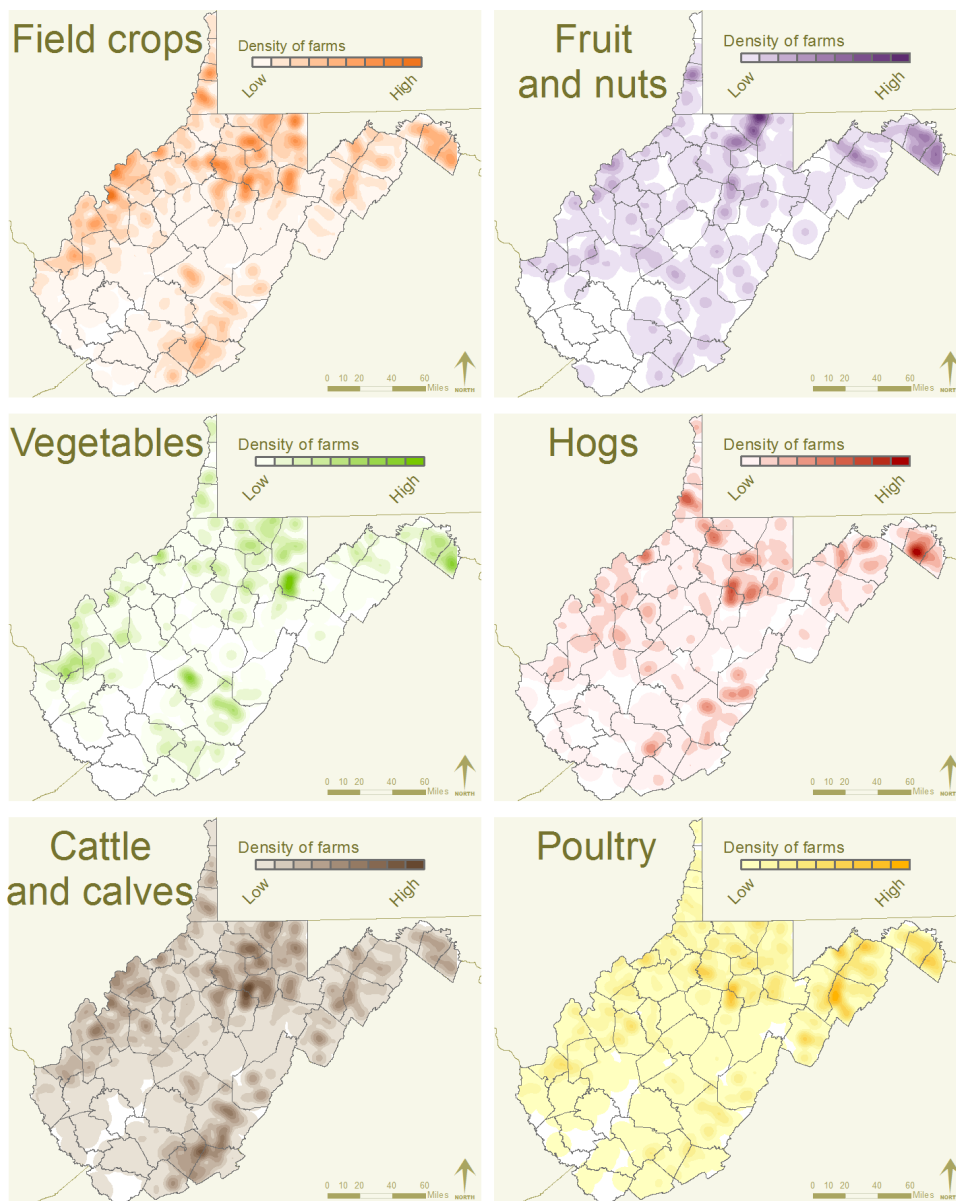
Photo: Barbour County Community Garden Market

Finding 8: The establishment of small food hubs in production centers throughout the state could increase rural producers' access to distribution channels and create economies of scale

Lack of access to markets and distribution channels is a constraint local food systems are grappling with nationwide. A major challenge for rural producers is the distance to markets where sufficient demand for local food exists. This may be especially true in a state like West Virginia, where a largely rural landscape sprinkled with small population centers imposes limitations on the economic potential of direct sales.

Food hubs in nearby states have helped small producers gain access to larger markets, including restaurants, institutions, and retail grocers. This access can result in increased sales, the scaling up of farm operations, and increased local food production. Identifying underutilized buildings located in production centers (shown in Figure ES-9) that can be used for food hubs can facilitate the movement of crops grown in rural areas into population centers and mainstream marketing channels.

Figure ES-9: Production centers around which local food hubs could be centered



GLOSSARY

Acidified food manufacturer: A manufacturer of acidified food products, such as pickles, sauces, salad dressings, sugar-free jams, and jellies. Acidified food manufacturers must obtain a “food manufacturer permit” from the West Virginia Department of Health and Human Resources (WVDHHR). Process approval for the manufacture of acidified food products is required to assure the product is safe. For more information on acidified foods contact Linda Whaley, WVDHHR Food Program Manager, at (304) 356-4281. The *Acidified Food Manufacturer Requirements Checklist* is available at www.wvdhhr.org/phs/food/food%20manufacturers/acidified%20food%20manufacturer%20requirements%20checklist.pdf.

Approved kitchen: Generally, a kitchen that has been inspected and approved for the production of food for sale by the appropriate regulatory authority. See *food establishment permit* and *food manufacturing facility permit*, below, for more information on West Virginia–specific rules regarding the production of food for sale.

Backhauling: In the context of distribution, backhauling describes the practice of transporting products from point A to point B, picking up new products at point B, and then transporting these products back to point A. Backhauling reduces per-unit transportation costs by making use of cargo space on the return trip that would otherwise be unutilized.

Certified organic: The United States Department of Agriculture’s (USDA) National Organic Program (NOP) establishes the standards for the production, processing, and handling of organic agricultural products. Use of the term “organic” in labeling or other marketing representations without certification by a USDA-accredited certifying agent is not permitted (producers with gross income of \$5,000 or less from organic sales are exempt from certification requirements, but are still required to adhere to NOP standards). An organic product must be segregated from non-organic products throughout the entire supply chain. For more information on organic certification visit www.usda.gov/wps/portal/usda/usdahome?navid=ORGANIC_CERTIFICATIO&navtype=RT&parentnav=AGRICULTURE.

Co-packing facility: A facility where a co-packer manufactures and packages food products for clients for a fee. A co-packer generally uses the client’s ingredients, recipe, and packaging materials. Upon completion of the manufacture and packaging of the product, the client markets the finished goods.

Community kitchen: A kitchen that is generally owned by a community-based organization, and is publicly available for use by community members.

Food business kitchen incubator: A facility that provides food entrepreneurs with the use of production space, commercial kitchen equipment, packaging and labeling equipment, and storage; rental fees are generally charged. Technical training, business planning, and marketing assistance are frequently provided as well.

Food establishment: “An operation that stores, prepares, packages, serves, vends, or otherwise provides food for human consumption.”¹ Food establishments serve food directly to consumers; examples include restaurants, catering operations, mobile food units, and vending locations. For more information on food establishments contact a local health department or visit www.wvdhhr.org/phs/food/index.asp.

¹ WV Code of State Rules § 64-17-4.1 (2011).

Food establishment permit: Any operation that qualifies as a food establishment must be inspected and permitted by a local health department. Certain food items are allowed to be produced in home kitchens (without an inspection) for sale at farmers markets and similar direct markets. An operation that would otherwise qualify for the farmers market exemption, but is preparing a “potentially hazardous food” is defined as a food establishment and must be inspected and permitted. (Douglas, 2012) For more information see the *Farmers Market Vendor Guide*, available at www.wvdhhr.org/phs/food/Farmers%20Market%20Vendors%20Guide%20FINAL%20with%20cover.pdf. For more information on food establishment permits, potentially hazardous foods, and farmers market exemptions contact a local health department or visit www.wvdhhr.org/phs/food/index.asp.

Food hub: “[A] business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand.” (Barham et al., 2012, p. 5)

Food manufacturing facility: Any person or entity “that manufactures, processes, or packs food for human consumption.”² Generally, food manufacturing facilities make food to sell through distributors and retailers. Farms, “food establishments,” and facilities under the regulatory authority of the West Virginia Department of Agriculture (WVDA) are not “food manufacturing facilities.” Food manufacturing facilities must be inspected and permitted by WVDHHR.

Food manufacturer permit: Any operation that qualifies as a food manufacturing facility must be inspected and permitted by WVDHHR. Acidified food manufacturers must also obtain a food manufacturer permit. For more information on food manufacturer permits contact Linda Whaley, WVDHHR Food Program Manager, at (304) 356-4281 or visit www.wvdhhr.org/phs/food/index.asp.

Good agricultural practices (GAP)/Good handling practices (GHP): A series of best practices designed to minimize the risk of food contamination through documentation of how food was produced, handled, and stored. Farmers and produce suppliers throughout the supply chain can obtain GAP and/or GHP certification through voluntary independent audits. Audits can be performed by USDA, WVDA, or third-party certifiers. In West Virginia, WVDA performs GAP and GHP audits and has recently established a cost-share program. For more information on WVDA GAP and GHP audits and cost-share programs contact Jean Smith, WVDA Director of Marketing and Development, at (304) 558-2210. For general information on GAP and GHP visit www.ams.usda.gov/AMSV1.0/GAPGHPAuditVerificationProgram or see USDA’s *Good Agricultural Practices and Good Handling Practices Audit Verification Program: User’s Guide*, available at www.ams.usda.gov/AMSV1.0/getfile?dD`ocName=stelprdc5097151.

Hazard Analysis and Critical Control Point (HACCP) plan: A plan that is federally mandated for certain processors, manufacturers, distributors, and others who prepare specified foods—juices, fish and seafood, meat, and poultry—for consumption. HACCP plans are generally not used on produce farms unless the farm does on-farm processing activities. (Burke-Fonda, 2012) A HACCP plan requires a hazard analysis to identify any “critical control points.” A critical control point is a “point, step, or procedure in a food process at which control can be applied and, as a result, a food safety hazard can be prevented, eliminated, or reduced to acceptable levels.”³ Once these points are identified, critical limits, monitoring procedures, corrective actions, verification procedures, and record-keeping and documentation procedures must be established.⁴ For more information on HACCP plans contact Jean Smith, WVDA Director of Marketing and Development, at (304) 558-2210 or visit <http://fsrio.nal.usda.gov/haccp-0>.

² WV Code of State Rules § 64-43-2.3 (2011).

³ 9 C.F.R. § 417.1 (2012).

⁴ 9 C.F.R. § 417.2 (2012).

Infrastructure: The systems that are required to move food from the farm to the plate, including, but not limited to, production, processing, aggregation, distribution, and marketing (Cantrell & Lewis, 2010).

Intermediary buyer: A participant in the supply chain who handles a product before it reaches the consumer. Examples include aggregators and restaurants.

Liability insurance: Insurance coverage that protects a farmer if someone is injured on a farmer's property or by a farmer's product. Farm liability insurance provides protection for liability arising out of the operations of the farm, such as bodily injury or property damage. Business liability insurance provides coverage for activities other than farming that a farmer may conduct and for liability that may be caused by the consumption of a farmer's product. (Halstead, 2012) Specifically, general liability insurance provides coverage for claims brought against a producer that are not product related; for example, a claim brought by a customer who trips over a bungee cord securing a farmer's shelter at a farmers market and suffers injury. Product liability insurance provides coverage for claims related to a producer's product; for example, a customer purchases a dozen eggs, claims the eggs made her sick, and sues the producer for food poisoning. (Farmers Market Coalition, 2012)

Meat distributor: A distributor "engaged for profit in the business where carcasses, meat products or poultry products are received from state inspected establishments, or establishments inspected by the United States Department of Agriculture and who store and distribute to commercial outlets, processors or individuals, and who conduct no processing. Distributors handle only products packaged at the establishment where they were manufactured, and are not allowed to open individual packages for any further processing." (WVDA, 2012) Meat distributors must obtain a license from the Commissioner of WVDA before commencing operations.⁵ For more information on meat distributor licenses contact Dr. Robert Pitts, WVDA Director of Meat and Poultry Inspection, at (304)558-2206.

Packing sheds: Facilities where freshly-harvested produce can be sorted, graded, washed, trimmed, and packaged for sale.

Perishable Agricultural Commodities Act (PACA): A federal Act to promote fair trade practices. The PACA imposes licensing requirements upon "any person who buys or sells more than 2,000 pounds of fresh or frozen fruits and vegetables in any given day... [W]holesalers, processors, truckers, grocery wholesalers, and food service firms fit into this category." (USDA, 2012a) Brokers and grocery retailers are not required to obtain a PACA license until they invoice over \$230,000 in a calendar year. Under the PACA, a consignment is *not* a sale. (USDA, 2012a) For general information on the PACA visit www.ams.usda.gov/AMSV1.0/PACA. For specific information about PACA licensing call the USDA Agricultural Marketing Service at (800) 495-7222.

Produce Traceability Initiative (PTI): A voluntary produce industry-led effort to establish a standardized traceability program. Through the use of sophisticated barcodes, produce would be traceable through every segment of the supply chain, from farm to consumer, including commingled products (such as salad mixes). For more information on the PTI visit www.producetraceability.org.

Season extension techniques: Techniques producers use to extend the growing season, including cold frames, row covers, low tunnels, and high tunnels. With the use of such techniques, producers can grow crops year round. (Bachmann, 2005) For more information on season extension see *Season Extension Techniques for Market Gardeners*, available at www.clemson.edu/sustainableag/IP035_season_extension_techniques.pdf.

⁵ Inspection of Meat and Poultry, WV Code of State Rules § 61-16-6.1 (2011).

Small producer exemptions: Exemptions from federal or state regulations that are granted to producers whose sales or volume fall below specified thresholds. For example, in West Virginia, a producer marketing 150 dozens of eggs or fewer per week of his or her own production is exempt from paying permit or inspection fees. However, such producers are required to register with WVDA.⁶

Supply chain: “[T]he set of processes, trading partner relationships, and transactions that delivers a product from the producer to the consumer.” (King et al., 2010, p. 1)

Traceability: The ability to trace products along the supply chain. Quality control, food safety, product recall, and liability issues are reasons why traceability is important. The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 requires certain handlers of foods to establish traceability programs and keep records that allow them to trace a product one step back and one step forward. See www.fda.gov/Food/FoodDefense/Bioterrorism/Recordkeeping/ucm061476.htm.

Value-based certifications: Voluntary certifications producers can obtain that convey information to consumers and buyers about production and processing practices. For example, producers may obtain certifications that pertain to animal welfare, fair trade, or sustainable agriculture practices. Producers may also have their products certified naturally grown, kosher, or halal. These lists of value-based certifications are not exhaustive. For examples of value-based certifications visit www.animalwelfareapproved.org/farmers/certification/ or www.naturallygrown.org/.

Value-added products: Agricultural products that have been transformed into a new product that has value beyond that of the raw inputs. Freezing, dehydrating, canning, and baking are examples of value-addition activities; sauces, jams and jellies, cheeses, and cured meats are examples of value-added products.

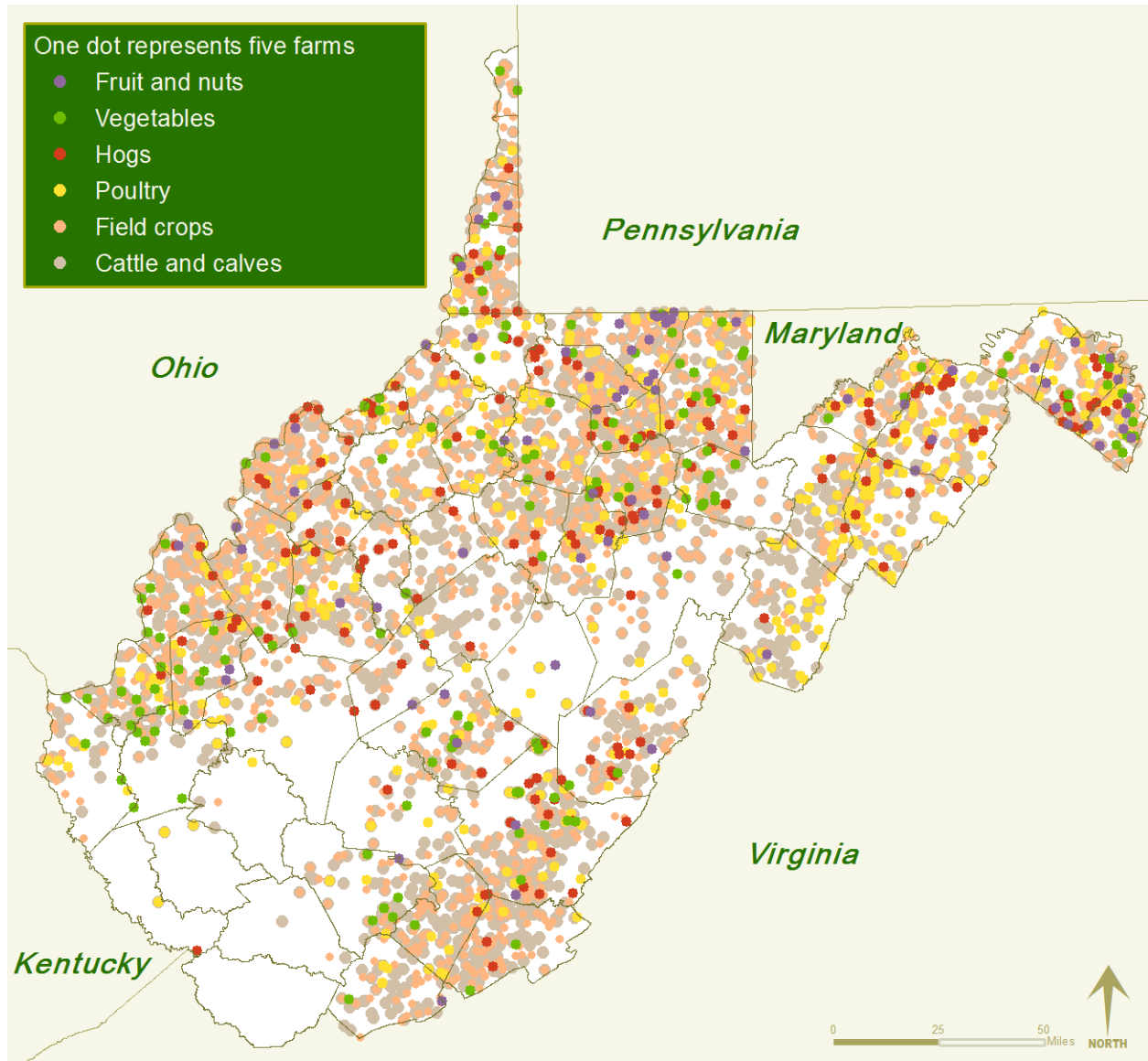
Vertically integrated producer: A food producer who fulfills multiple roles within the supply chain. For example, an entity that operates a farm and processes and distributes products to buyers is a vertically integrated operation. An operation may be partially or fully integrated.

⁶ Marketing of Eggs Rule, WV Code of State Rules § 61-7A-3 (2011).

1. INTRODUCTION

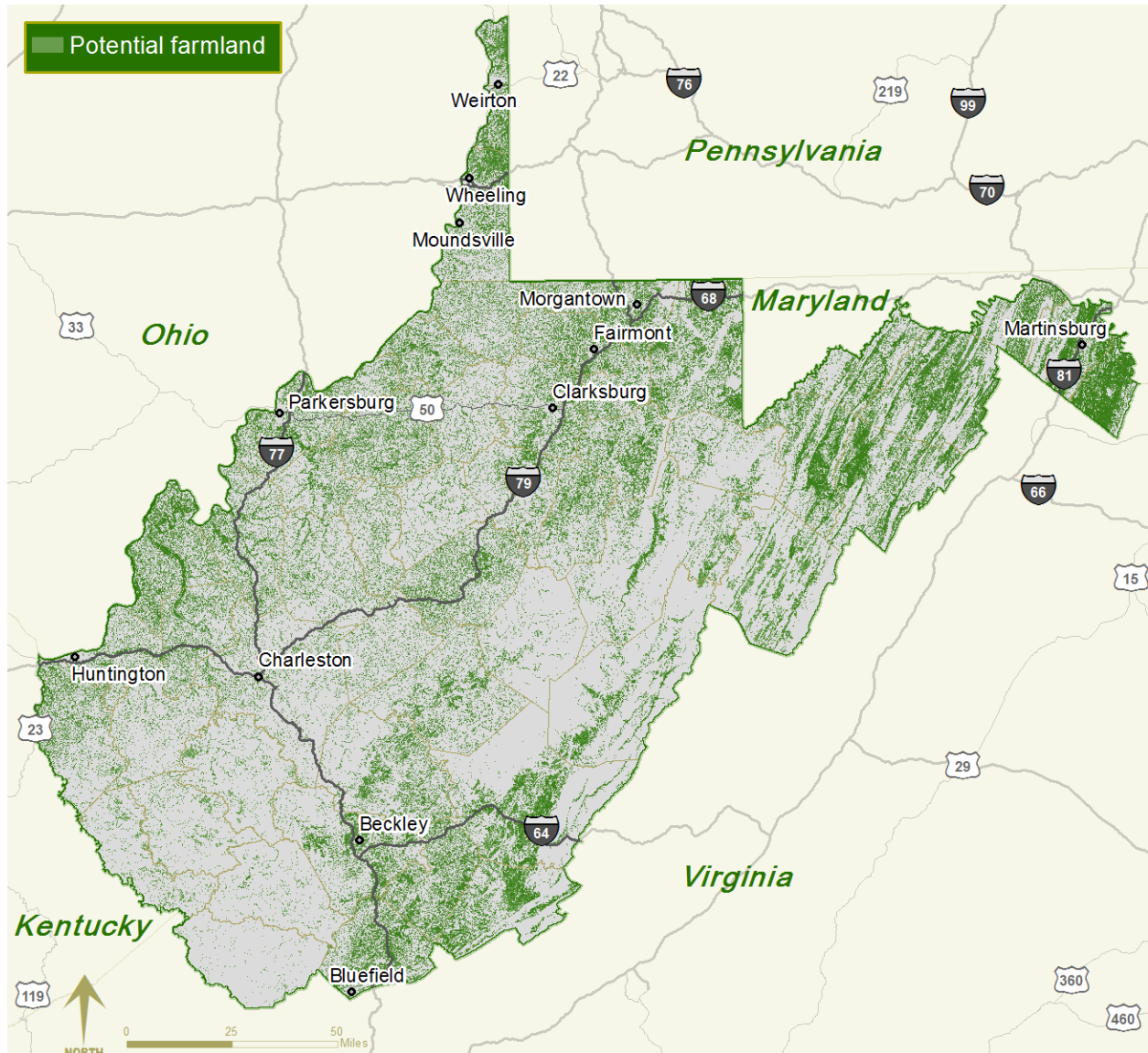
This report is the second in a series that explores the West Virginia local food system. The first report found that West Virginia has an abundant number of farms (Figure 1) and a significant amount of potential farmland (Figure 2); through expanded production, the state's farmers could meet West Virginians' seasonal demand for fresh fruits and vegetables (Hartz et al., 2012). This report assesses the state's food system infrastructure to identify the opportunities and constraints of West Virginia's local food system—a system in which West Virginians produce and market food for consumption by West Virginians.

Figure 1: Distribution of farms in West Virginia, 2007



Source: Hartz et al. (2012). Original data from USDA (2007). Note: Each dot represents five farms in a zip code. If there are fewer than five farms in a zip code, there is no dot. Only farms with more than \$1,000 in sales are represented. If a farm had more than \$1,000 for more than one commodity, the farm receives one-fifth of a dot for each commodity.

Figure 2: Potential farmland, 2011



Source: Hartz et al. (2012). Original data from NRCS (2011) and NASS (2011).

Currently, the United States has a centralized, specialized national and international food system, where food is produced on large monoculture farms (farms that produce a single crop) and travels great distances before it reaches the consumer (Martinez et al., 2010). The rise of centralized monoculture farms has made it difficult for small farmers to competitively market their products locally. Large farms benefit from economies of scale that enable them to sell their products at significantly lower prices than smaller operations. For example, large farms purchase agricultural inputs in bulk, thereby reducing their production expenses. Large farms are also able to reduce per-unit production costs through the use of production technologies that, due to cost and scale, are not available to smaller producers. In addition, large farms spread operational and managerial costs over a larger volume of product than smaller farms do and benefit from advantageous terms of trade (Diamond & Barham, 2012). Mid-sized farms that are too big to rely solely on direct marketing and too small to compete with large producers are particularly impacted by these competitive disadvantages.

In recent years, there has been a growing interest in decentralized local food systems. The term “local food system” refers to a system in which food is produced, processed, distributed, and marketed to local consumers. While there is no generally accepted standard definition of “local food,” it is often defined in terms of miles transported from point of origin to the consumer, by geographic region, or by state boundaries (King et al., 2010). The 2008 Farm Bill defines a “locally-produced agricultural food product” as:

[a]ny agricultural food product that is raised, produced, and distributed in—(1) the locality or region in which the final product is marketed, so that the total distance the product is transported is less than 400 miles from the origin of the product or (2) the State in which the product is produced.⁷

Proponents believe local food systems can benefit rural and local economies, produce and distribute food more sustainably than centralized systems that package food and transport it long distances,⁸ promote food security, and provide healthier food to consumers (Martinez et al., 2010). Increased consumer demand for local food can be attributed to consumers’ interest in forming connections with food producers, supporting local farmers, reducing environmental impacts,⁹ and eating high-quality fresh foods (Coit, 2009; Martinez et al., 2010).

In West Virginia, many partners—including the West Virginia Food & Farm Coalition, West Virginia University Extension Service, state agencies, economic development groups, and other community members—are working together to build a local food system and develop a Road Map for the Food Economy Charter. This Charter will help guide the development of and measure and celebrate the collective progress toward a stronger local food system. This report is intended to provide a research base for the Charter, as well as other efforts to strengthen the state’s local food system.

This report draws on federal, state, and local food systems literature; federal and state data; and personal interviews with local food producers, processors, aggregators, distributors, and retailers to assess West Virginia’s local food infrastructure. While the literature, data, and interviewees discussed herein have varying definitions of local food, this report defines local food as food produced in West Virginia.

Because local food systems and supply chains are an emerging area of interest and study, information on them is incomplete (King et al., 2010; Low & Vogel, 2011). Several reports on local food systems have been released by the United States Department of Agriculture (USDA) in recent years (King et al., 2010; Martinez et al., 2010; Low & Vogel, 2011; Diamond & Barham, 2012). These reports rely on federal data and case studies¹⁰ to assess local food supply chains and identify emerging issues and opportunities related to building stronger local food systems. This report uses a similar approach. Profiles of participants in local food supply chains in West Virginia and contiguous states are presented to illustrate challenges local food producers and businesses in the state face and to provide examples of the various ways producers and others working to build a West Virginia food economy are overcoming these challenges. The first profile, which describes Mock’s Greenhouse and Farm, provides an example of a West Virginia farm that has overcome challenges to help build the local food economy.

⁷ Food, Conservation, and Energy Act of 2008, 7 U.S.C. § 1932(g)(9)(A)(i) (2012).

⁸ While there is a perception that local food distribution is more sustainable than centralized distribution, there is some evidence that, on a per-unit basis, local food may consume more fuel (King et al., 2010).

⁹ Environmental impacts include food transportation energy use and emissions, as well as energy used for processing, packing, and storage (Coit, 2009). There is disagreement over whether local food systems are more environmentally sustainable than mainstream food systems (Martinez et al., 2010; King et al., 2010).

¹⁰ While USDA defines a small farm as a farm with gross cash farm income under \$250,000, the reports referred to throughout this report use varying definitions of small, mid-size, and large farms. Where data from these reports concerning small, mid-size, and large farms are provided in this report, the definitions used by the original authors are also provided.

MOCK'S GREENHOUSE AND FARM

In 2005, Paul Mock built his first three hydroponic greenhouses on his farm in Berkeley Springs. The following year, he had products ready to market in the Washington, D.C. and Baltimore areas but no access to distribution channels. To get his products to market, he invested in his own refrigerated trucks and began hauling his produce east. His success in marketing to these major population centers has allowed him to expand rapidly. (Mock, 2012a)

Today, Mock's Greenhouse and Farm is one of the largest hydroponic operations in West Virginia, with 20 hydroponic greenhouses and a high tunnel for growing berries. Mock's works with upscale, mainstream, and economy distributors in seven states. The company's produce can be found in restaurants, institutions, and retail grocers including Whole Foods and Wegmans. Approximately 97% of the company's products are sold to out-of-state wholesalers. Mock's does a small amount of direct marketing at the Berkeley Springs Farmers Market, the annual Winter Blues Farmers Market in Morgantown, and several farmers markets in Maryland and Virginia. While most of his produce is shipped out of state, Mock does contribute to West Virginia's agricultural economy; he has already created six full-time jobs and three part-time jobs for agricultural workers in the Berkeley Springs area. (Mock, 2012a)

Rather than grow a diverse range of crops, Mock chose to focus on select specialty crops, including heirloom, cherry, and red tomatoes. Annual production of tomatoes has been roughly 30,000 pounds per year; Mock anticipates that newly installed greenhouses will increase this to 80,000 pounds annually. In addition to tomatoes, Mock grows bibb lettuce (3,000-5,000 heads per week, depending on the season), watercress (3,000-4,000 bunches per week, depending on the season), basil, cilantro, specialty greens, berries, and organic ginger. (Mock, 2012b) This specialization coupled with the use of season extension techniques enables Mock to offer his customers a steady supply of the same products of the same quality for the same price year round (Mock, 2012a). In addition to having a large year-round supply of high-quality products, Good Agricultural Practices (GAP) certification and delivery infrastructure have contributed to the company's success.

Mock believes his hydroponic operation can be replicated throughout the state and is a vocal advocate for the construction of more greenhouses. He acknowledges that farmers may initially face some of the challenges he faced, including lack of access to capital. In 2005, with limited access to capital, Mock started small and steadily grew his business. When he was ready to expand, his sales track record allowed him to secure the necessary funding. Mock also recognizes that his proximity to major population centers provides him with the opportunity to profitably sell a large quantity of produce. He believes other opportunities exist for farmers throughout the state if they employ season extension techniques and develop relationships to meet the demand for local food in their areas. (Mock, 2012a)

2. BACKGROUND

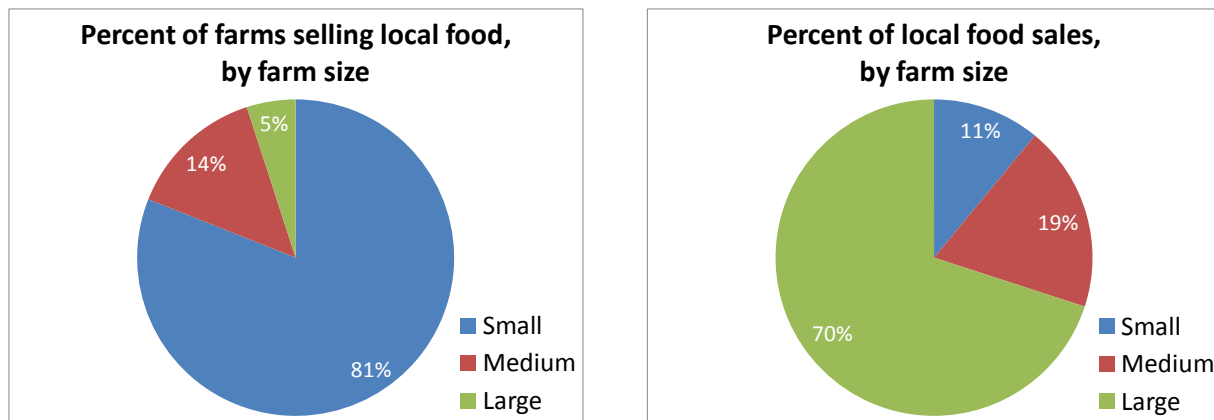
Creating and maintaining vibrant local food systems requires sufficient infrastructure to move food from farms to consumers. Generally, the term “local food system infrastructure” refers to processing, aggregation, and distribution. Local food system infrastructure can include

warehouse[s] or cold storage facilit[ies] to sort, grade or store food and keep it fresh; processing plants to cut broccoli into florets, turn strawberries into jam, or mill grain into flour for local bakeries; refrigerated trucks to transport local food to local or regional markets; or kitchen equipment to prepare it (USDA, 2012b).

Despite the increased interest in local food systems, small and mid-size farms across the country face a “lack of distribution infrastructure and services that, if made available, would allow them to take greater advantage of the growing demand for locally and regionally grown food in larger volume markets (such as grocery stores, restaurants, schools, hospitals, and universities).” (Barham et al., 2012, p. 1) The development of supply chain infrastructure and marketing channels is essential for the continued growth of local foods production (Low & Vogel, 2011).

As illustrated in Figure 3, national data drawn from the 2008 Agricultural Resource Management Survey show that 81% of farms selling local food are small farms (defined as farms with sales of less than \$50,000); based on these data, local food systems are extremely important to the viability of small farms. However, national data also show that small farms are only capturing 11% of local food sales. While large farms will capture a greater share of the market simply because of their size, there is substantial opportunity for small farms to increase production and capture a larger share of the local food market.

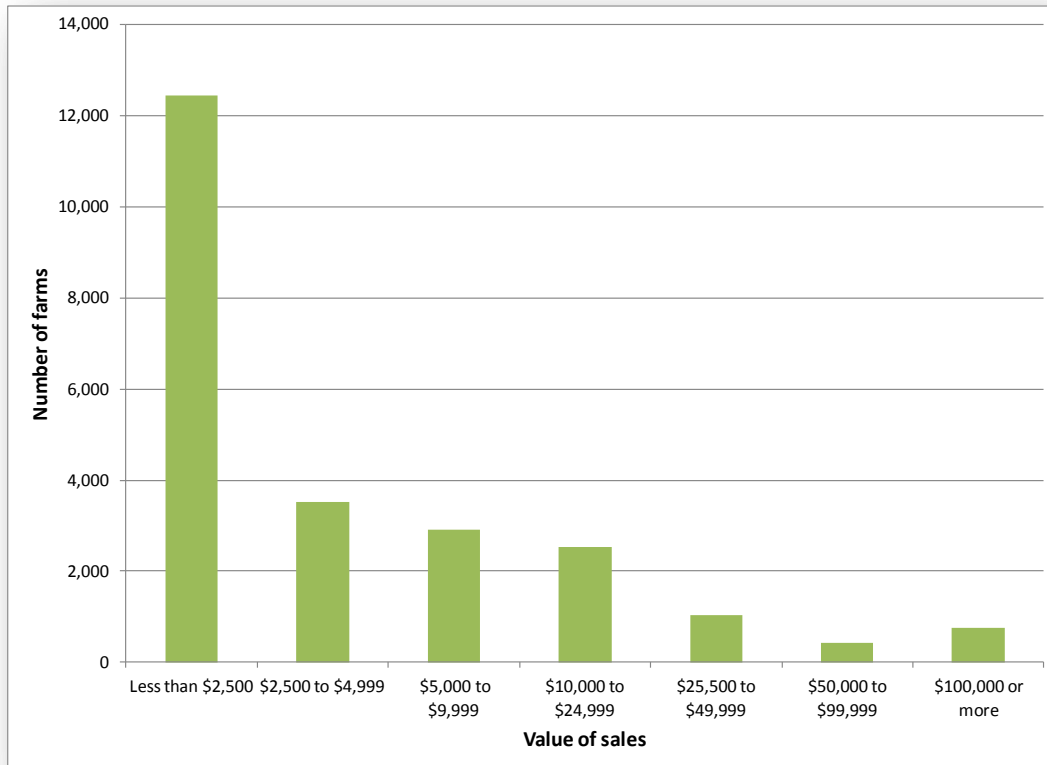
Figure 3: Farm size and sales of local foods in the United States



Source: Low & Vogel (2011). Note: Original data from USDA, Economic Research Service calculations based on 2008 Agricultural Resource Management Survey, conducted by USDA, National Agricultural Statistics Service and Economic Research Service. Small farms are defined as farms with sales less than \$50,000; medium farms are defined as farms with sales of \$50,000-\$249,999; large farms are defined as farms with sales of \$250,000 or more.

The vast majority of farms in West Virginia have annual sales less than \$50,000, and fit this definition of small farms (see Figure 4). The development of adequate infrastructure to assist the state’s producers in accessing new markets for local food, including institutions, restaurants, large distributors, and chain grocers, is extremely important to the economic viability of the state’s small farms.

Figure 4: Number of West Virginia farms by value of sales, 2007



Source: Hartz et al. (2012). Original data from USDA (2007).

Developing local food infrastructure could greatly benefit West Virginia’s small farms; however, certain challenges are particularly difficult for small producers to overcome. One such challenge lies in the fact that expanding local food infrastructure requires capital. Nationally, lack of access to capital is an oft-cited barrier to establishing local aggregation and distribution businesses (Martinez et al., 2010). West Virginia producers and distributors have also identified lack of access to capital as a constraint on local food production and distribution (Mock, 2012a; LeFew, 2012a).

Small farms nationwide face numerous challenges to accessing large distribution chains and markets. Due to the development of a specialized and geographically concentrated food system over the past 60 years, there is a lack of suitable processing facilities and distribution channels (Cantrell & Lewis, 2010). While small farmers are willing to grow products to supply local markets and meet consumer demand for local food, there currently is “no practical way to connect local demand with local supply.” (Diamond & Barham, 2011, p. 4) In order for producers to gain access to large distributors and retail grocers, they generally have to transport products to centralized distribution centers, which results in high transportation costs. These logistical constraints and high costs coupled with requirements pertaining to minimum quantities, certifications, and traceability are barriers small producers of local food and others involved in the creation of strong local food systems are working to overcome.

Another challenge small producers and local supply chain participants face is a highly complex regulatory environment. Federal, state, and local agencies may have regulations applicable to the production, marketing, and sale of local foods. In addition, various agencies within these different levels of government may regulate different aspects of food production and distribution. (Martinez et al., 2010) For example, at

the federal level, both USDA and the Food and Drug Administration (FDA) regulate food; at the state level, the West Virginia Department of Agriculture (WVDA) and the West Virginia Department of Health and Human Resources (WVDHHR) impose regulations upon producers. Navigating and complying with a labyrinth of regulations can be challenging for small producers.

Local producers' access to markets may also be hindered by a lack of ability to price their goods competitively. Formal and informal networks "to overcome scale limitations by pooling resources and diversifying tasks within the supply chain" can help small producers reduce costs and be more competitive in the marketplace (Martinez et al., 2010, p. 24). Producers can also act cooperatively to pool purchases of farm inputs and supplies, such as animal feed (see Figure 5). When producers pool their purchases, they are generally able to receive quantity discounts that reduce their operating costs. Farmers can also collectively purchase farm equipment; shared use of farming equipment addresses the lack of access to capital and helps farmers keep operating costs down. Acting cooperatively allows small producers to capture some of the economies of scale that large producers benefit from (Martinez et al., 2010). Through these cooperative networks, producers may also coordinate plantings, aggregate and market products, and take turns making deliveries, thus allowing small producers to access additional distribution and marketing channels. Tygart Valley Growers Association, profiled below, has employed many of these techniques.

Figure 5: Example of a farm input, chicken feed, which can be purchased cooperatively to reduce costs

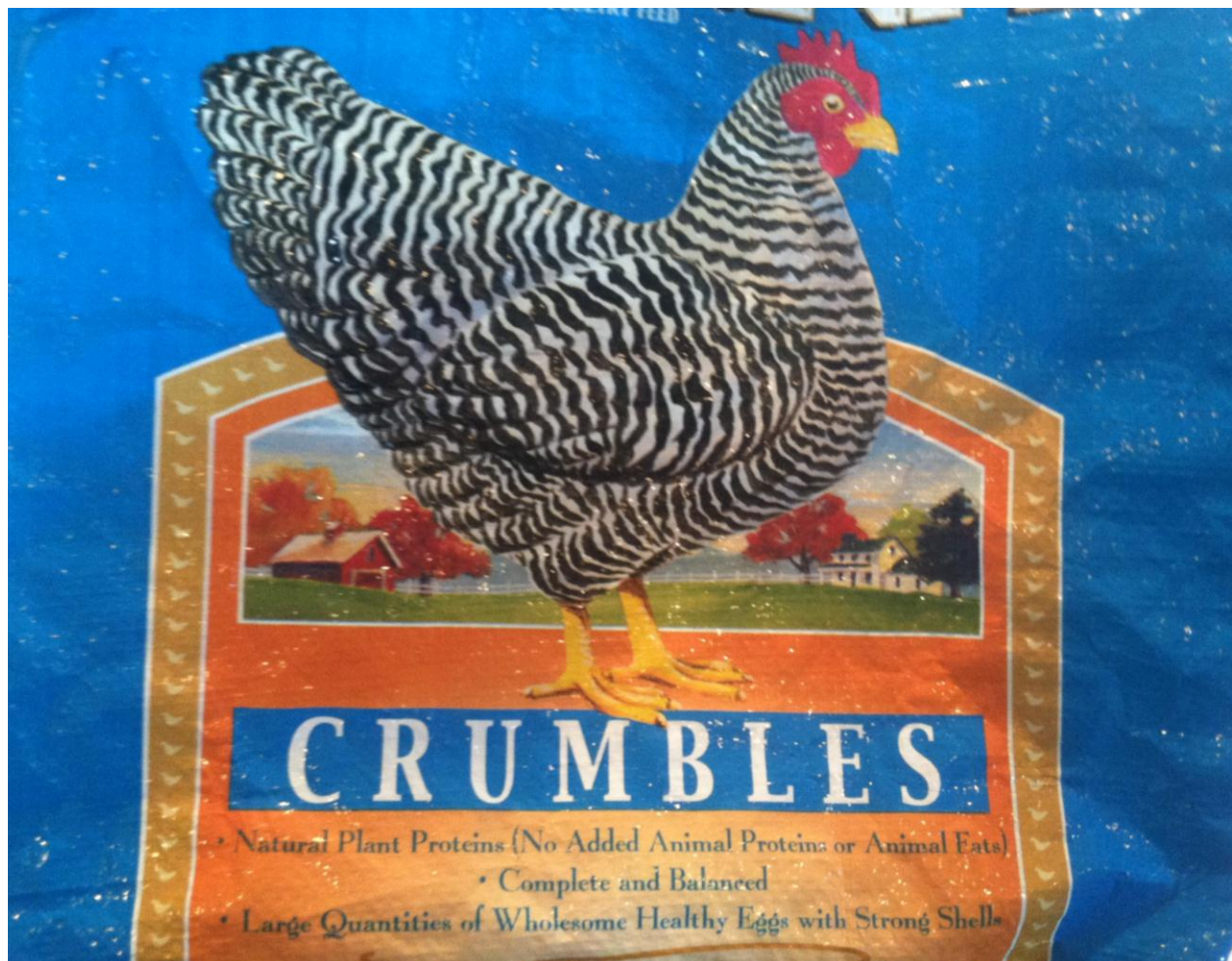


Photo: Cassie Peters

TYGART VALLEY GROWERS ASSOCIATION

The Tygart Valley Growers Association was established through the WesMonTy Resource and Conservation Development Council with funding provided by a USDA Farmers Market Promotion Program grant for the development of a marketing club. The Association started with just three growers but today has approximately a dozen members. It currently provides technical assistance to growers and fosters relationships among regional farmers. One of the Association's goals is to facilitate the building of a shared knowledge base about regional production techniques. (Nemeth, 2012)

Member producers receive technical assistance in the form of research and assistance in accessing information. USDA and other farm organization-sponsored webinars and field days with West Virginia University (WVU) Extension Service personnel have provided further technical information. The Association has also assisted members in applying for grant funding to purchase high tunnels to extend the growing season. The group was recently awarded a Northeast Sustainable Agriculture Research and Education Partnership Grant to train area farmers in advanced on-farm record keeping methods. This project is intended to improve business practices among participating farmers. (Nemeth, 2012)

Members have used aggregation and cooperative marketing to expand their distribution. In 2011, the Association, along with the Barbour County Community Garden Market, worked with the Stonewall Resort's chef and local growers to coordinate supply and demand; growers' products were then aggregated and sold to the resort. The Association has also marketed its produce to Belington and Philippi Shop 'n Save stores and to Upshur and Barbour County schools. In 2012, it will begin coordinated plantings to further increase the marketable product available to local retail and food service businesses. (Nemeth, 2012)

The Association's members have also benefitted by acting cooperatively to reduce costs and expand production. Growers have reduced costs for seeds, materials, supplies, and high tunnels by pooling their orders to qualify for quantity discounts. The growers are currently sharing a piece of farm equipment for mulch laying and are considering collectively investing in additional farm equipment. They have also worked cooperatively to install high tunnels on members' farms. (Nemeth, 2012)

3. LOCAL FOOD SUPPLY CHAINS

A supply chain is “the set of processes, trading partner relationships, and transactions that delivers a product from the producer to the consumer.” (King et al., 2010, p. 1) In the context of local food, supply chains trace the movement of local foods from the farm to the end consumer: the “eater.” Supply chains come in a variety of structures and sizes, depending upon the particular product and the method of marketing. For example, the supply chain for a pint of cherry tomatoes sold at an on-farm store is very short. In contrast, tomatoes processed into tomato sauce and marketed in a grocery store will have a fairly long supply chain. A typical mainstream supply chain is shown in Figure 6, and includes a producer, processor, distributor, retailer, and consumer (Maumbe, 2012).

Figure 6: Typical mainstream supply chain



Source: Maumbe (2012).

3.1 Participants in local food supply chains

Numerous participants may be included in a particular local food product’s supply chain. While a distinct definition for each participant is provided below, it is common for a local food business to fulfill multiple roles in a local food supply chain. For example, a producer may also aggregate products and distribute them to retail markets. The following are definitions of traditional roles in a supply chain:

Producer: A producer may be a farmer or rancher who grows or raises agricultural products, including fruits and vegetables (see Figure 7), honey, eggs, poultry, or meat. In some instances, the term “producer” may also refer to a forager or gatherer, a baker, or others engaged in the production of food.

Processor: Processors convert raw agricultural products into value-added foods. A processor may take heads of lettuce, spicy greens, and herbs and wash, trim, and package them into bagged salad mixes; use tomatoes, peppers, and onions to make tomato sauce; or make specialty meat products, such as ham, bacon, and sausage. Local food system processors and processing facilities include co-packers, community kitchens, and food enterprise kitchen incubators (see Section 4).

Aggregator: An aggregator gathers products from multiple producers and markets the products to buyers or processes them into value-added goods (see Section 5).

Distributor: A distributor moves goods from producers, aggregators, and/or wholesalers to buyers, including processors, institutions, restaurants, retailers, and consumers. Distributors can be local, regional, national, or international. The particular activities a distributor performs can vary greatly, from merely brokering a sale and arranging for transport to aggregating, marketing, and delivering products (see Section 6).

Institution: The term “institution” may refer to schools, universities, and colleges; hospitals; assisted living facilities; correctional institutions; state parks; or government buildings.

Restaurant: Restaurants that serve local food range from fine-dining establishments to cafés in local food markets. Fast food and chain restaurants including Chipotle and Eat’n Park are also sourcing food from local producers (Martinez et al., 2010; Lindeman, 2012).

Retailer: Retailers primarily sell food to consumers for home consumption. Retailers may include direct marketers (producers who sell directly to consumers), community retail food stores, producer and consumer cooperatives, independently owned grocery stores, and regional and national chain grocers.

Consumer: As used in this report, consumer refers to the “eater”—the person who will ultimately eat the food.

Figure 7: West Virginia–grown produce

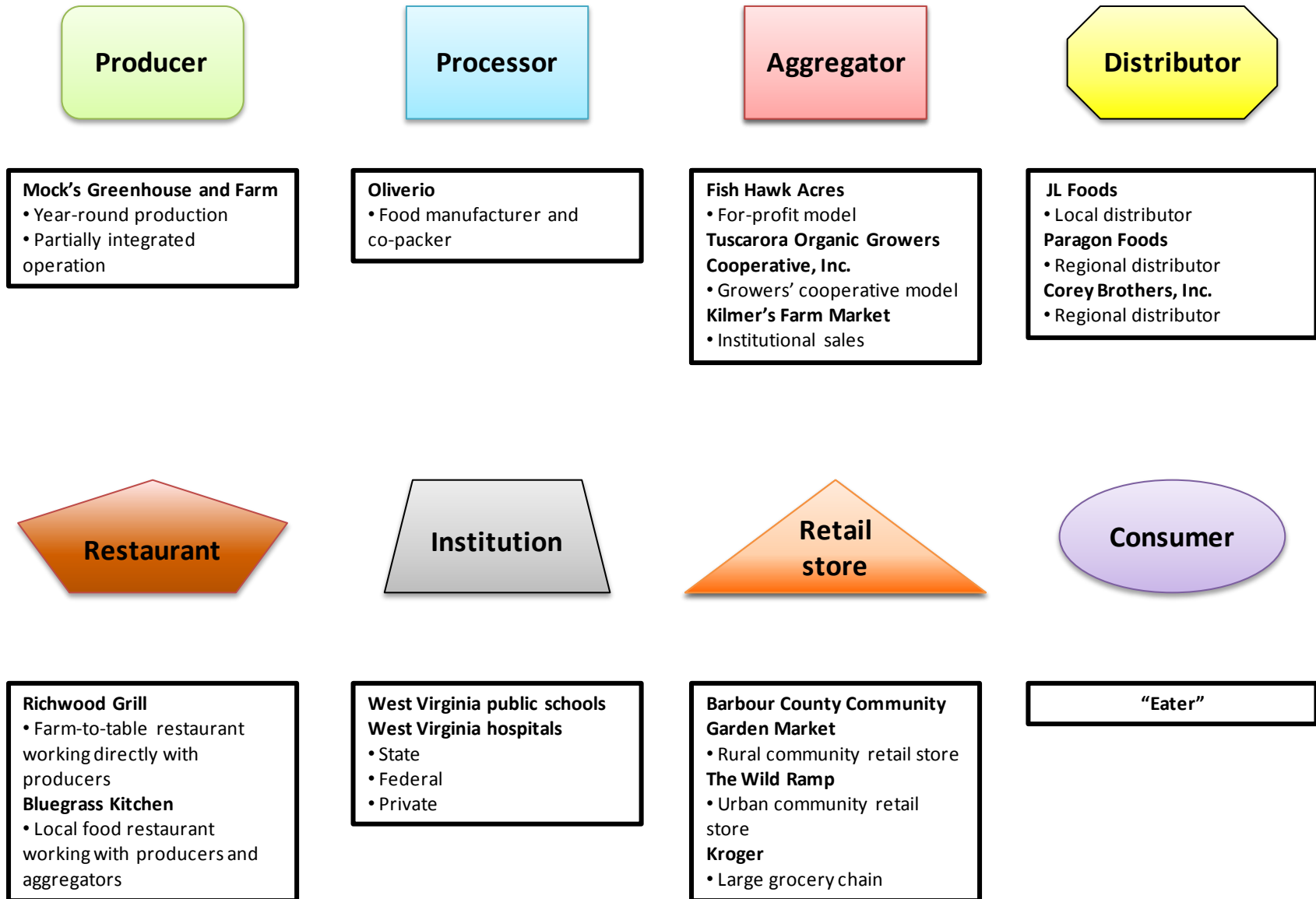


Photo: Cassie Peters

Throughout this report, profiles of businesses working with local food are provided to demonstrate the role of various participants in local food supply chains. The businesses profiled demonstrate the frequent overlapping of roles within a supply chain, but each business profiled has been carefully selected to illustrate a particular aspect of a local food system (see Figure 8).

Local food reaches consumers through direct marketing, intermediated marketing, and mainstream marketing supply chains (King et al., 2010). The remainder of this chapter describes and provides local examples of each of these supply chains.

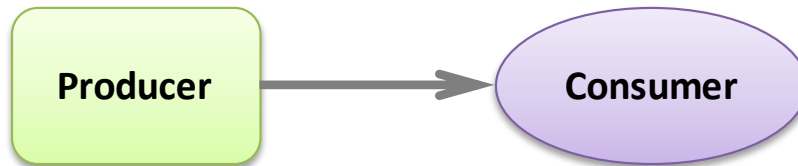
Figure 8: Participants in a local food system and entities profiled in this report



3.2 Direct marketing supply chains

Direct marketing, or direct-to-consumer sales, refers to local food sales made directly from the producer to the consumer (see Figure 9). Direct marketing includes sales made through on-farm stores, roadside stands, U-pick operations, farmers markets, community supported agriculture (CSA)¹¹ arrangements, and online markets.

Figure 9: Direct marketing supply chain



On the national level, small local food farms primarily rely on direct marketing to sell their products.¹² In fact, small farms (sales less than \$50,000) selling local food are three times more likely to market directly to consumers than are mid-size (sales \$50,000 to \$249,999) and large farms (sales of \$250,000 or more) selling local food. (Low & Vogel, 2011) This reliance on direct marketing is frequently attributed to several factors. First, small farms often lack the production capacity to produce enough volume to meet the demands of distributors or institutional buyers (Low & Vogel, 2011). Second, direct marketing offers opportunities to increase returns to farmers, meaning farmers keep a share of the sales dollar that would otherwise be captured by participants further down the supply chain (Diamond & Barham, 2012; Martinez et al., 2010). In fact, a recent USDA study found that direct-marketing producers enjoy high absolute price levels and, on a per-unit basis, “consistently retain a large percent of the retail value of their products, even after estimated marketing and processing costs are netted out.” (King et al., 2010, p. 57) While direct marketing can result in the farmer retaining a higher share of the sales dollar, it may add expenses to the farm operation.

Direct marketing may also prevent small and mid-size farmers from scaling up. Producers who engage in direct marketing must spend a significant amount of time preparing and marketing their products. Time spent on customer relations, processing and packing, travel and delivery, and scheduling harvesting to coincide with market days is particularly extensive for direct marketing at farmers markets. Time spent off-farm may result in a producer having less time to scale up production. (Martinez et al., 2010)

3.2.1 Direct marketing opportunities

Farmers markets

Farmers markets are “common facilit[ies] or area[s] where several farmers or growers gather on a regular, recurring basis to sell a variety of fresh fruits and vegetables and other locally-grown farm products directly to consumers.” (Lakins, 2007) Figure 10 shows a typical West Virginia producer selling products at a farmers market. Nationally, farmers markets and roadside stands are the most widely used direct marketing channels.¹³ While farmers markets share some common characteristics, each has its own structure, rules, and culture. Farmers markets may require that the producer is the seller and that food sold at the market is local,

¹¹ A CSA is a “marketing arrangement in which a group of households agree to purchase shares of a farmer’s expected yield before planting. These upfront cash payments allow the farmer to buy inputs and share the output and yield risks with CSA members... Some CSAs tie households to formal contracts and others to informal arrangements and/or barter.” (Low & Vogel, 2011, p. 3) CSA members may pick up their shares at the farm or a designated pickup location; other producers arrange for direct delivery (Martinez et al., 2010).

¹² A 2008 USDA Agricultural Resource Management Survey found that 72% of small local food farms market strictly through direct-to-consumer channels (Low & Vogel, 2011).

¹³ A 2008 USDA Agricultural Resource Management Survey found that 75% of farms selling local food were marketing through direct-to-consumer outlets; of these, approximately 80% were roadside stands and farmers markets (Low & Vogel, 2011).

as defined by the particular farmers market; for example, “local” may be defined as within the county, within 50 miles, or within the state (Martinez et al., 2010). Other markets may permit the resale of produce by non-producer vendors with no requirements that the products be locally grown or produced.

Figure 10: Locally produced Green Glades’ cheeses on display at the Morgantown Farmers’ Market



Photo: Cassie Peters

Approximately 93 farmers markets (see Figure 11) were operating throughout West Virginia in 2012 (WVFMA, 2012). This represents a 274% increase over the number of farmers markets that were operating in the state in 2005.¹⁴ These farmers markets provide West Virginia producers with relatively inexpensive access to consumers and other buyers. In addition, farmers markets are good places for new farmers and food producers to test the market for their products. Producers can establish relationships with consumers, convey information about their production practices, build brand recognition for their products, and allow potential customers to sample food (under specific conditions).¹⁵ Some producers selling at West Virginia farmers markets are exempt from certain regulations imposed upon producers selling through other channels;¹⁶ these exemptions may reduce barriers to market access for new farmers and food businesses.

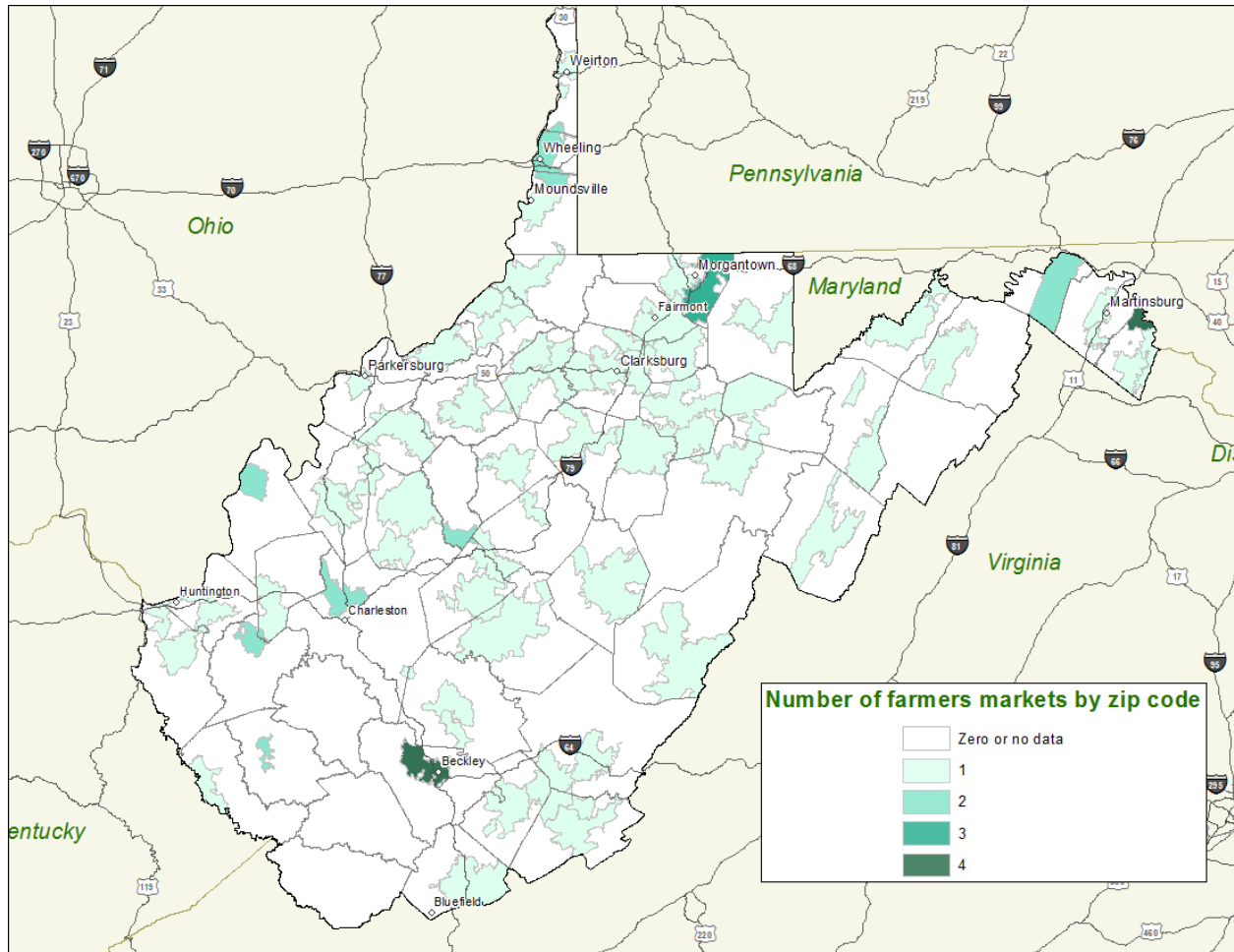
¹⁴ In 2005, there were 34 farmers markets operating in West Virginia (Hughes et al., 2008).

¹⁵ Conditions are detailed in the *Farmers Market Vendor Guide* available at www.wvdhhr.org/phs/food/Farmers%20Market%20Vendors%20Guide%20FINAL%20with%20cover.pdf.

¹⁶ For more information see the *Farmers Market Vendor Guide* available at www.wvdhhr.org/phs/food/Farmers%20Market%20Vendors%20Guide%20FINAL%20with%20cover.pdf.

In order to for a farmers market to succeed and offer producers profitable marketing opportunities, there must be sufficient demand for locally grown food. Sufficient demand may result from a market being located in a large population center; in smaller towns, it may exist if there is a concentration of people with enough money or interest to support local farmers. However, some towns lack sufficient consumer demand to support a farmers market and it may not be profitable for farmers to travel long distances to sell their products in areas where more demand exists. Even where there is enough demand to support one or several farmers markets, the economic opportunity they present is limited because they generally operate for several hours per week and many are only open during the peak growing season.

Figure 11: West Virginia farmers markets



Source: WVfMA (2010). Note: A list of West Virginia farmers markets is available on the West Virginia Farmers Market Association website at <http://wvfarmers.org/>.

Online marketing

In recent years, online marketing has become a popular way for small producers to connect with buyers. For producers, online marketing provides access to a broader range of customers than farmers markets and on-farm sales. It also saves time, adds flexibility, and allows producers to easily provide detailed information about their farms, production practices, and products. This detailed information and the convenience of shopping from home are major advantages for consumers.

MONROE FARM MARKET ONLINE

The Monroe Farm Market Online features products from over 25 small farms located in Monroe County and surrounding counties. Monroe Farm Market is a producer market, meaning it only sells items that were raised, grown, or made directly by the producer. Collectively, the market's producers offer "seasonal fruits and vegetables, beef, veal, goat, chicken, lamb, pork, eggs, baked goods and other value-added items." (Monroe Farm Market Online, 2012)

The Monroe Farm Market Online provides its producers with a convenient way to sell their products and convey information to customers. Producers list the products they have available each week. Profile pages allow producers to share pictures and detailed information about their production practices. Customers place their orders online Sunday nights through Tuesday mornings; producers then harvest or otherwise prepare the items and deliver them to the market's aggregation center on Thursdays. Individual customer orders are packed, with items retaining the producers' brands, and distributed to pickup locations in Lewisburg and Charleston. To defray operating costs, customers pay a small membership fee; this fee allows producers to keep a larger share of the sales dollar. (Monroe Farm Market Online, 2012)

In addition to the online marketplace, Monroe Farm Market operates a seasonal farmers market and aggregates products for distribution to restaurants in Charleston and Lewisburg. Monroe Farm Market plans to work with Monroe County Schools and is currently developing relationships with several area hospitals. In 2011, its sales exceeded \$100,000. While a local senior center provides the market with an aggregation center, securing permanent cold storage facilities, including refrigerators and freezers, would enable the market to further grow its sales (Jones, 2012).

Monroe Farm Market uses a customized version of a standard online ordering platform provided through locallygrown.net, a company that provides customizable online ordering sites to farmers markets throughout the country on a commission basis. Locally-grown.net provides back-end tools that make it easy for farmers to fill orders, including order summaries for each producer, a label printing option, and other functions. Monroe Farm Market organizers have found advantages and disadvantages to using this particular platform, which has served the market's needs for over five years. However, during that time-frame, several online ordering sites have been developed that offer more reporting options and flexibility. Monroe Farm Market is exploring other options and encourages organizations considering creating an online market to research all of the options currently available. (Young, 2012)

The Monroe Farm Market Online is available at <http://monroefarmmarket.com>.

While direct marketing has its benefits, a local food system cannot be created solely through such channels. Reasons to expand the local food system beyond direct marketing include farmers' lack of desire to engage in direct marketing (reasons include time spent off farm, distance to travel to market, uncertainty of sales, competition, and a distaste for marketing), the reality that not all direct markets are profitable (producers direct marketing in some areas may not have a sufficient customer base), and the fact that supermarkets are the dominant force in food retailing. In addition, "direct marketing channels alone are not sufficient to handle the bulk of mid-sized agricultural producers (\$50,000 to \$250,000 gross farm income)." (Diamond & Barham, 2012, p. 3) Intermediated marketing, including sales through food hubs and sales to institutions and restaurants, is an alternative to direct marketing that maintains a connection between producers and consumers.

3.3 Intermediated marketing supply chains

As illustrated in Figure 12, intermediated marketing refers to marketing channels in which "local food products pass through one or more intermediate steps in the local food supply chain before reaching the consumer," (Low & Vogel, 2011, p.3) including sales made through regional distributors and sales to institutions, restaurants, and local retailers¹⁷ (Low & Vogel, 2011).

Marketing through intermediated outlets provides several benefits to producers. First, intermediated marketing generally requires less labor than direct marketing as the producer does not spend time at the intermediated outlets (Low & Vogel, 2011). Second, in contrast to the unknown demand inherent in direct marketing, sales made through intermediaries are most often for predetermined quantities, thereby eliminating loss to the producer through spoilage of unsold products. In addition, many intermediaries work with buyers to forecast demand and share this information with producers who can plan ahead to meet future demand.

Figure 12: Example of an intermediated supply chain



Producers working with intermediary buyers generally receive a lower per-unit price for products than they do when marketing directly to consumers. This is because intermediaries generally purchase food at wholesale rather than retail prices. Despite the fact that per-unit prices are often lower, distributing through intermediated supply chains offers producers the opportunity to increase their sales volume while reducing marketing activities. Reduced time spent marketing combined with guaranteed buyers for their products provides farmers with the incentive and opportunity to scale up production and increase income by selling more product.

Smaller producers are often at a disadvantage when it comes to accessing intermediated marketing channels. Regional distributors, institutions, retailers, and restaurants demand large quantities of consistent products that are often challenging for small and mid-size producers to provide (Low & Vogel, 2011). In addition, as the number of intermediaries involved in the chain increases, the producer's share of revenue decreases. Smaller producers generally incur relatively high production costs and have a limited ability to decrease their share of revenue. Aggregation, discussed in Section 5, may help small producers overcome some of these

¹⁷ Sales made by producers directly to retailers, restaurants, and institutions may be considered direct-to-retail/direct-to-foodservice sales or intermediated sales. Throughout this report, we classify these sales as intermediated sales, which is in accordance with local food system reports released by USDA (King et al., 2010; Low & Vogel, 2011).

disadvantages. In addition, strong partnerships between local intermediaries and producers can facilitate local food sales. Such partnerships are resulting in increased sourcing of local food by some West Virginia institutions, including schools and hospitals.

3.3.1 *Intermediated marketing opportunities*

Schools

The national farm-to-school movement has been gaining momentum in states throughout the country, including West Virginia. A state farm-to-school conference was held in Morgantown in September 2011 to connect producers, food service directors, and service providers. State agencies, economic development groups, and nonprofits worked together to coordinate the event. Farm-to-school stories and panels have also been featured at recent WVU Extension Service Small Farm Conferences.¹⁸

The West Virginia public school system presents an excellent opportunity for the state's local food producers to enter the institutional market. Public schools purchase eggs, meat, and many fruits and vegetables that can be produced in West Virginia during the growing season. Further, the dispersion of public schools throughout the state allows farmers in every county to access this market. Public schools purchase food for school breakfasts and lunches, and many schools throughout the state purchase food for their Summer Food Service Programs, At-Risk Program Meals, and Fresh Fruit and Vegetable Programs. (WVDE, 2011) The Fresh Fruit and Vegetable Program does not follow all of the same stringent purchasing requirements as cafeteria-based school breakfast and lunch programs; therefore, this program offers a unique opportunity to pilot and test new farm-to-school relationships on a smaller, more flexible scale (Seay, 2012b). For example, schools participating in the Fresh Fruit and Vegetable Program can start purchasing fresh West Virginia apples (shown in Figure 13) and begin building relationships with local food producers and/or distributors.

Figure 13: West Virginia-grown apples



Photo: Cassie Peters

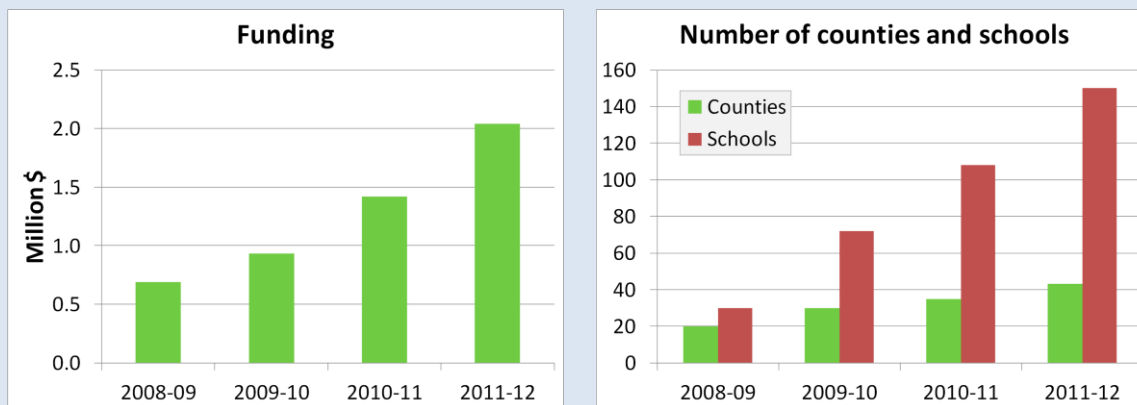
¹⁸ Information on the WVU Extension Service Small Farm Conference is available at <http://smallfarmcenter.ext.wvu.edu/conference>.

FRESH FRUIT AND VEGETABLE PROGRAM

The Fresh Fruit and Vegetable Program is a national, federally funded program administered through the West Virginia Department of Education. The program, established to combat childhood obesity, introduces children to new fruits and vegetables and encourages more healthful eating habits. (USDA, 2012c) Funding for the program in West Virginia has more than tripled over the past four academic years (see Figure 14).

During the 2011-12 academic year, 150 schools in 43 of West Virginia's 55 counties participated in the Fresh Fruit and Vegetable Program; funding for this period totaled \$2.0 million (WVDE, 2011). Proposed 2012-13 funding for the program in West Virginia increased slightly to \$2.1 million (USDA, 2012d). The growth in funding for fruits and vegetables indicates that federal policies are trending toward supporting more fresh healthy foods in schools. This funding provides an opportunity for local produce farmers to coordinate with school food service providers to meet the growing demand for fresh fruits and vegetables.

Figure 14: Growth in the Fresh Fruit and Vegetable Program in West Virginia

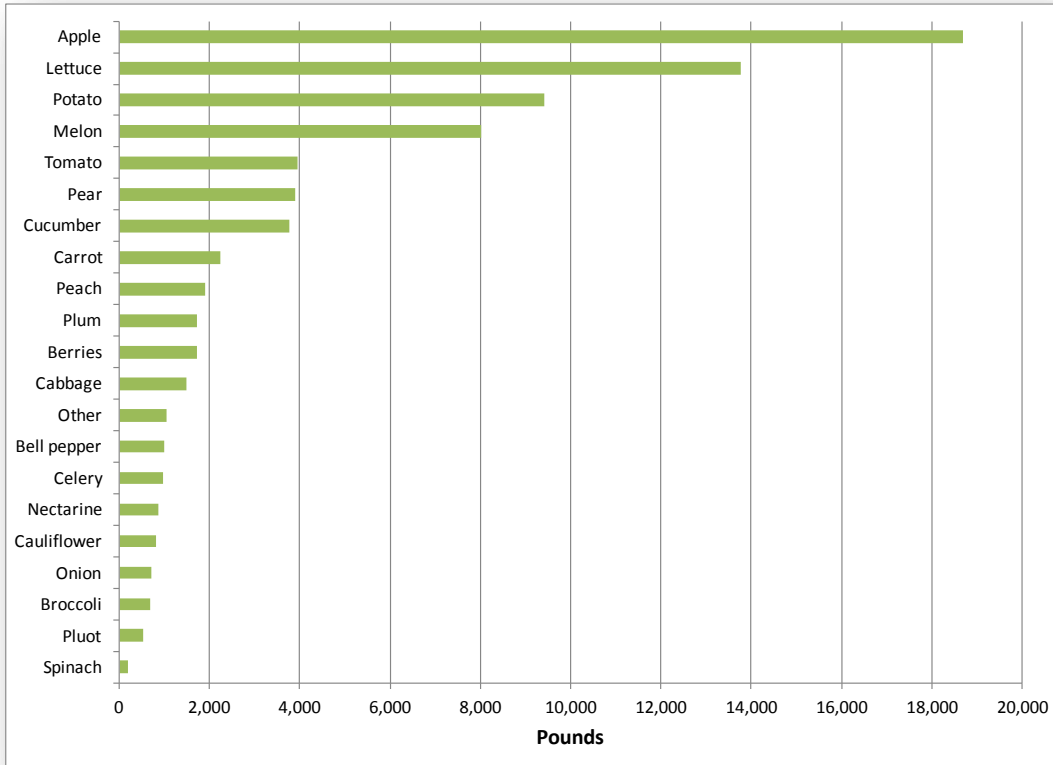


Source: WVDE (2011).

Fayette County Schools' demand for produce demonstrates the potential opportunity for farm-to-school sales in the state. During the 2010-11 growing season (April through October), Fayette County Schools purchased approximately 75,000 pounds¹⁹ (roughly 10 pounds per enrolled student) of fruits and vegetables suitable for production in West Virginia (see Figure 15). However, the county spent less than \$1,700 on local food during that time period (Seay, 2012a). While this figure may seem modest, Fayette County Schools' Child Nutrition Director is a purchaser who *wants* and is *actively seeking* local food, but has had difficulty locating sufficient local producers to meet his demand (Seay, 2012b). Substitution of locally grown produce presents a tremendous opportunity for West Virginia's farmers.

¹⁹ This estimate is based upon purchase summaries provided by Fayette County Schools. Weights were either provided on the purchase summaries or based on USDA standard weights and measures (USDA ERS, 1992) or a sampling of weights of actual produce items, when necessary.

Figure 15: Fayette County Schools' estimated seasonal demand for produce, 2011



Sources: Crook Bros. (2012), Sysco (2012).

Not all of the fruits and vegetables purchased by Fayette County Schools during these months can be produced throughout the entire West Virginia growing season. But through the use of season extension techniques, planting of varieties that produce when demand is high, and willingness of food service providers to plan menus to incorporate available local fruits and vegetables, West Virginia producers could supply a significant share of school produce.

Assuming Fayette County Schools' purchases and student meal participation are typical of the rest of the state, West Virginia schools' annual demand for fruits and vegetables during the local growing season may be nearly three million pounds.²⁰ This estimate may be conservative due to updates to the nutrition standards and meal patterns for National School Breakfast and Lunch Programs that, as of July 1, 2012,²¹ require schools to serve more dark green and red/orange vegetables and additional fruit.²² Also, student participation in school lunch programs may increase next year because over 300 schools in West Virginia have the potential to serve universal free lunch.²³ (Todd, 2012)

²⁰ For this estimate, Fayette County Schools' 2011 seasonal purchases per student were applied to the 2010 statewide enrollment.

²¹ 77 FR 4143, Jan. 26, 2012.

²² 7 C.F.R. § 210.10(c) (2012). See Comparison of Current and New Regulatory Requirements under Final Rule "Nutrition Standards in the National School Lunch and School Breakfast Programs" Jan. 2012 USDA FNS available at www.fns.usda.gov/cnd/Governance/Legislation/comparison.pdf.

²³ "Universal free meal service [is an] option designed to make it easier for low-income children to receive meals in the National School Lunch and School Breakfast Programs. The Community Eligibility Option allow[s] schools in high-poverty areas to provide free breakfasts and lunch to all students, using preexisting data to determine the eligibility of kids to receive free nutrition assistance. The determination is based on the percentage of households in that community who are already participating in the Supplemental Nutrition Assistance Program, formerly known as [the] Food Stamp Program." (USDA, 2011)

The West Virginia Department of Education's Office of Child Nutrition, the state lead for the National Farm-to-School Network, has been working diligently to promote farm-to-school sales. Representatives of the Office have sponsored, co-sponsored, and attended conferences and meetings to identify challenges, barriers, and opportunities for farm-to-school sales and to connect producers and food service providers. They have also worked to educate food service providers and local producers about the rules and requirements for local food procurement by West Virginia schools. With funding provided by a Center for Disease Control and Prevention Community Transformation Grant, the Office will have a full-time farm-to-school coordinator on staff beginning in the 2012 academic year. The Office is also working with various partners to explore "the opportunities for a sustainable community-focused and education-based system for food production that can be implemented and expanded statewide." The goal of this effort is to have student-grown produce served in school cafeterias. (Leigh, 2012)

In order to sell produce to a West Virginia public school, a producer must follow any applicable federal and state regulations, including permitting and certification requirements imposed by WVDA and WVDHHR. In some cases, county health department regulations may also apply. At the state level, producers are not yet required to obtain GAP certification or liability insurance in order to sell to schools, although product liability insurance is highly encouraged. Smaller producers can take advantage of the small purchase threshold procurement policy, which exempts producers selling less than \$5,000 from the bidding process. (Leigh & Todd, 2012)

In order to receive payment from a school, a producer must become a registered vendor with that school system, which requires filing a federal W-9 form and providing a federal tax identification number. Invoices are also required. Payment terms vary county by county, so producers would need to verify terms prior to conducting business. (Leigh & Todd, 2012) Standard school purchasing procedures create a delay in payment to farmers, which could be alleviated if farmers were able to accept credit card payments. Fayette County Schools has explored working with a local farmers market or other entity that could accept payment for multiple farmers through a streamlined system, but has not yet been able to establish such a relationship. (Seay, 2012b) Creating a purchasing procedure specifically designed for local producers that would eliminate this delay could result in more small farmers selling local food directly to schools.

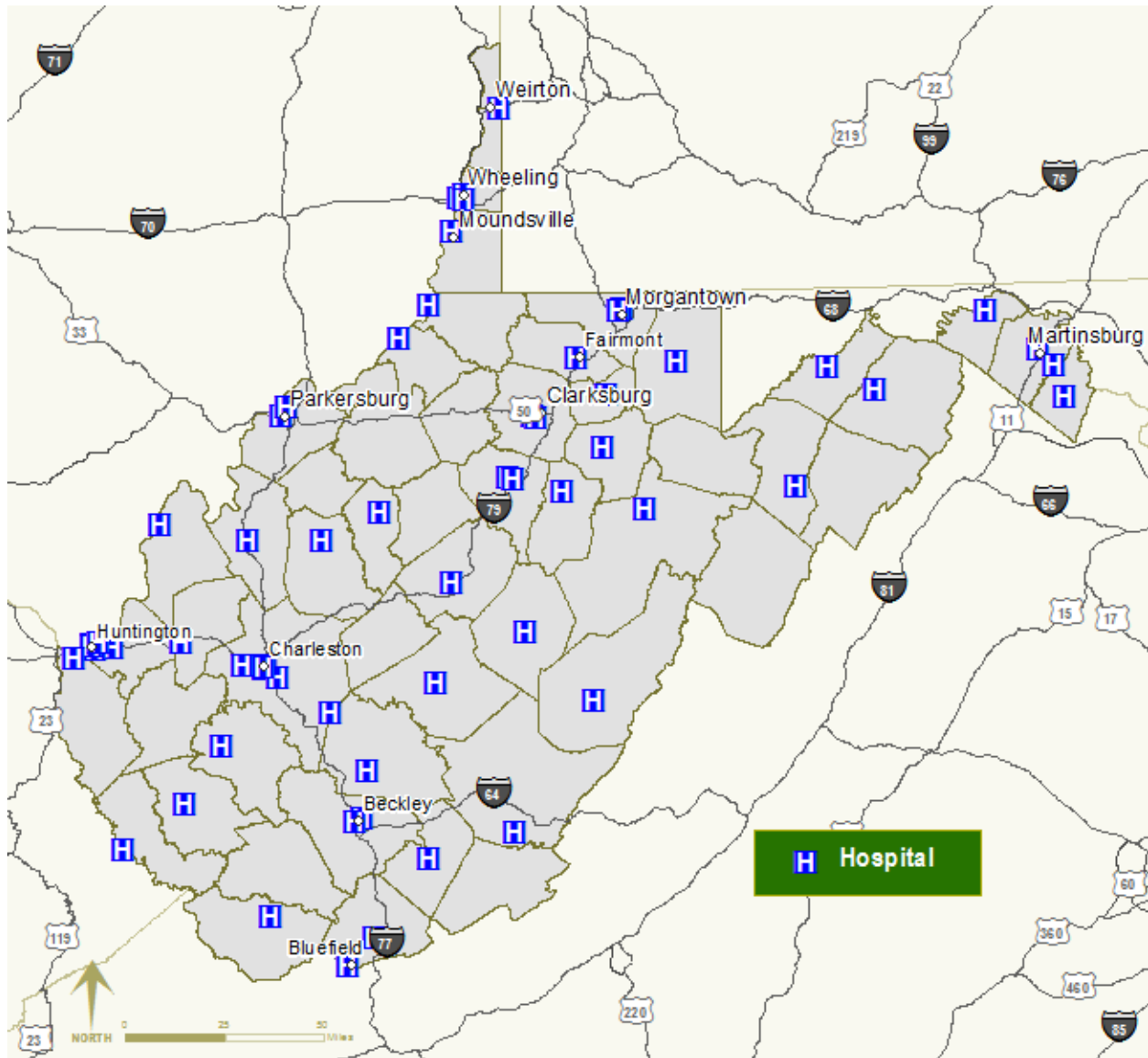
The West Virginia Department of Education recently launched a program to increase local food purchases. The Department's Local Foods Incentive Fund, in effect as of July 1, 2012, earmarked \$250,000 to reimburse school systems for purchases of local food. The Department has discretion in determining what qualifies as local for funding purposes. The program, intended to reward existing relationships between food service providers and producers and to encourage new ones, is available to all schools regardless of whether they have already purchased local food. Funds are not allocated by county or school; they are available on a first come, first serve basis. (Leigh & Todd, 2012)

Some West Virginia Food Service Directors have already developed solid relationships with local farmers. Jefferson County Schools' Food Service Director has been working with local farm, aggregator, and distributor Kilmer's Farm Market for four years (Leonard 2012). While Kilmer's Farm Market is not able to meet all of Jefferson County Schools' demand with local produce, as much as possible is locally sourced, including all apples. During the 2010-11 academic year, Kilmer's Farm Market sold nearly 75,000 pounds of locally grown produce to Jefferson County Schools. (Kilmer, 2012b) The Food Service Director appreciates the convenience of being able to work with one source for both local and nonlocal produce. In addition, Kilmer's Farm Market's federal certifications and produce distributor license confirm that the farm has established food safety processes for growing and handling produce. (Leonard 2012)

Hospitals

There are approximately 65 hospitals in West Virginia. As shown in Figure 16, hospitals are located throughout the state and present opportunities for producers statewide to enter this institutional market. Federal, state, and private hospitals have varying procurement policies that may promote or hinder the purchase of local food.

Figure 16: West Virginia hospitals



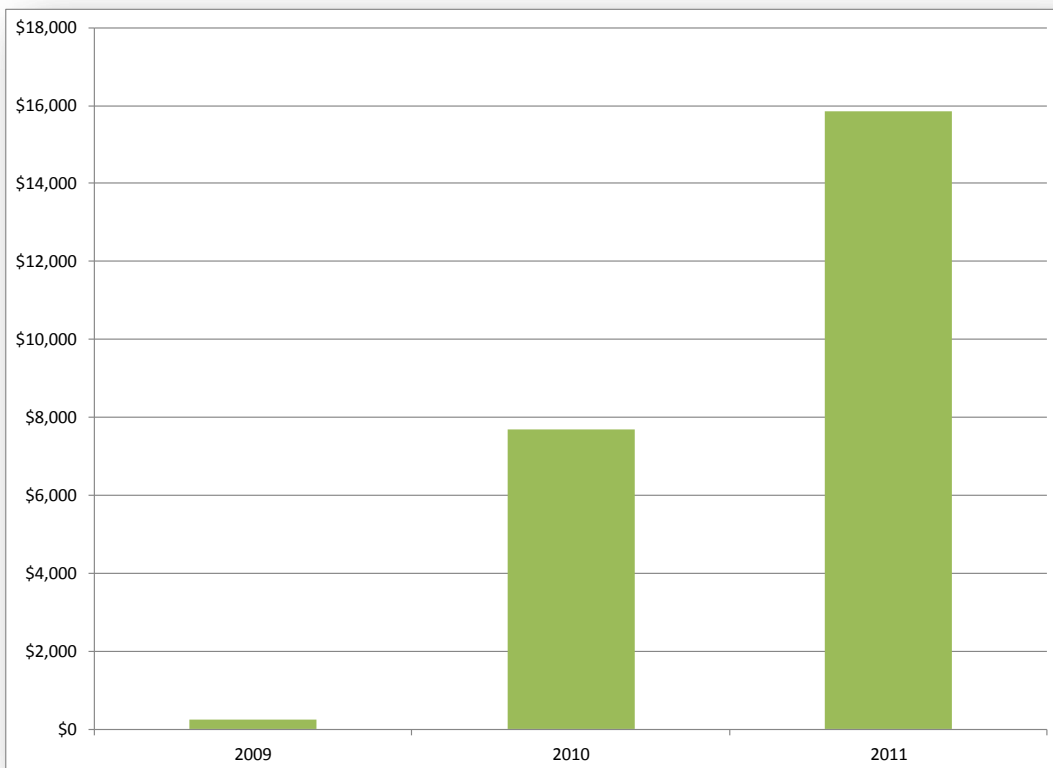
Source: WVDHHR (2012).

Federal hospitals

Veterans Administration Medical Centers (VAMCs) and other federal hospitals are required to procure food through a specified prime vendor. However, VAMCs may purchase fresh bread, milk, and produce from local producers for just-in-time delivery. (USDVA, 2012) In certain circumstances, a VAMC may procure specific food items from another source if the prime vendor is unable to supply the items; the procurement of the

specified items must be justifiable (Hartman, 2012a). In 2010, the Veterans Health Administration (VHA) issued a directive to promote healthy food. This directive encourages VHA facilities, including VAMCs, to purchase local seasonal produce to improve the quality and nutritional value of meals and also to support local economies and the environment. (VHA, 2010a) It included a Healthy Diet Food Model with “Green Environmental Management Strategies” that encourage the inclusion of fresh seasonal fruits and produce and the sourcing of local produce (VHA, 2010b).²⁴ The Martinsburg VAMC has been incorporating local food into its menu for several years. The Center’s Nutrition and Food Service first tried sourcing food locally in 2006, but it was not until 2009 that the Center started ramping up its use of local food. In those first years, the Center’s Chief of Nutrition and Food Services found it challenging to establish relationships with farmers and streamline the ordering process. In 2009, the Center started working with a local aggregator and distributor—Kilmer’s Farm Market. (See Section 5.3 for a profile of Kilmer’s Farm Market). Since then, the Center has successfully incorporated more local food into its meals each year, reaching almost \$16,000 in local food purchases in 2011 (see Figure 17). (Hartman, 2012c)

Figure 17: Martinsburg Veterans Administration Medical Center’s local food purchases, 2009-11



Source: Hartman (2012b).

The use of local food is one component of the Martinsburg VAMC’s Green Kitchen concept, which also includes a sophisticated electronic waste tracking system.²⁵ This system has enabled the Martinsburg VAMC to significantly reduce its food waste over the past several years, resulting in an estimated annual savings of \$40,000. (Hartman, 2012a) The savings allows the Center to “splurge” on special local foods for its patients

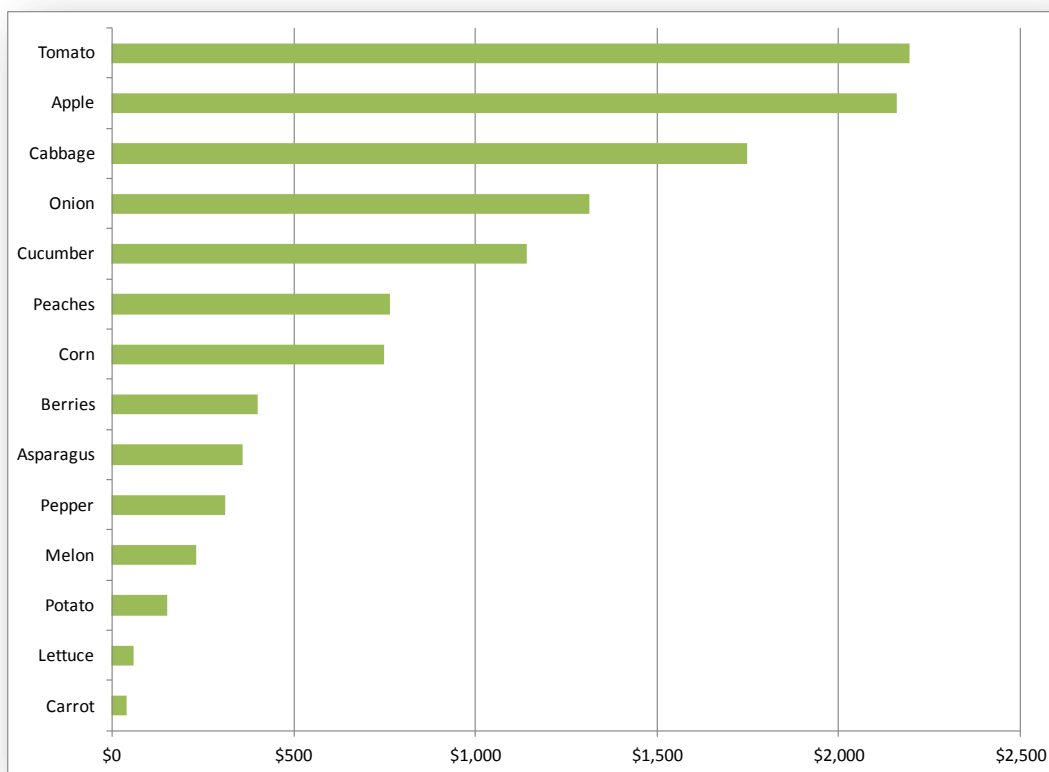
²⁴ “For unprocessed produce, farmers should be complying with guidelines outlined in Food Safety Begins on the Farm: Good Agricultural Practices for Fresh Fruits and Vegetables at www.sfc.ucdavis.edu/pubs/articles/foodsafetybeginsonthefarm.pdf. Further VHA guidelines are in development.” (VHA, 2010b, p. 5)

²⁵ To learn more about this waste tracking system visit <http://leanpath.com/index.htm>.

occasionally. The Center’s cook foreman, Larry Allen, points out that local food is not always more expensive than nonlocal food supplied through its produce aggregator; it depends on the product and the time of year. In addition, due to the freshness of local food, there is generally minimal loss due to spoilage. (Hartman, 2012c)

One challenge in incorporating local foods into the Center’s meals was the additional labor required in using fresh products versus partially-prepared products. For example, the kitchen staff was used to receiving shredded cabbage; local cabbage arrives in heads and must be shredded. Now that the staff is accustomed to working with fresh local foods, it has become a part of the culture of the hospital and the staff takes great pride in supporting local producers. In 2011, the Martinsburg VAMC spent thousands of dollars on local tomatoes, apples, and other produce (see Figure 18) and hopes to continue to increase its local food expenditures as supply increases. In addition to local produce, the Center sources local meat for an annual Earth Day meal each April; if possible, local meats could be incorporated into other special meals throughout the year. (Hartman, 2012c)

Figure 18: Martinsburg VAMC’s local produce purchases from May 1 through October 15, 2011



Source: Hartman (2012b)

The Martinsburg VAMC provides an example of how an institution can support local producers by starting with small orders for special meals and then increase purchases over time. As the Center—and other institutions in the region, including Jefferson County Schools—has increased its purchase of local food over the past several years, the Center’s cook supervisor, Kevin Hine, has noticed an increased supply of local foods, which indicates producers are increasing production to meet growing demand (Hartman, 2012c).

Figure 19: Martinsburg VAMC's Fourth of July cupcakes featuring local blueberries



Photo: Kerry Goerke

State hospitals

In order to sell directly to a state hospital in West Virginia, a producer must be in compliance with all state and federal regulations. Producers selling products that have *not* been processed in *any* way, such as shell eggs²⁶ and uncut fresh produce, are not required to have a food manufacturer permit. If a product has been processed in any way, including repacking (which means that a product is taken from a bulk container, packed into a smaller container, sometimes mixed with other ingredients, labeled, and made available for sale), the producer must have a food manufacturer permit (Whaley, 2012).

²⁶ For more information on shell eggs, see the Marketing of Eggs Rule, WV Code of State Rules § 61-7 et seq. (2011) or contact Jean Smith, WVDA Director of Marketing, at (304) 558-2210.

State agencies, including state hospitals, must purchase all food from approved vendors—“individual[s] or business[es] registered with the Purchasing Division who may provide commodities and services to state agencies.”²⁷ (West Virginia Purchasing Division, 2011, p. 9) The process for selling to a state hospital depends on the dollar amount of the sale. Procurements up to \$25,000 are processed by the hospitals themselves. For purchases less than \$2,500, state hospitals are not required to obtain bids. For purchases between \$2,501 and \$25,000, hospitals must obtain bids.²⁸ (West Virginia Purchasing Division, 2011) A producer may submit a bid prior to registering with the Purchasing Division, but must register before making the actual sale (Coleman, 2012). Purchases over \$25,000 must go through the West Virginia Purchasing Division. The bid thresholds are viewed comprehensively, meaning the amount purchased from a particular vendor is calculated over a 12-month period. (West Virginia Purchasing Division, 2011)

State hospitals provide rural producers with an opportunity to enter the institutional market on a small scale. A producer can sell to a hospital without having to go through the bidding process, provided the producer does not sell more than \$2,500 to the hospital in a 12-month period. If the relationship is successful, a producer can work with the state hospital to determine future demand for local food. The producer can then determine what crops can be grown and marketed at a competitive price and scale up operations.

Private hospitals

Privately owned hospitals’ procurement policies are generally set at the corporate level. Many hospitals work with group purchasing organizations that aggregate institutional purchases to offer their members better prices on supplies, including food. Working with a group purchasing organization can restrict where a hospital sources its food. For example, the Charleston Area Medical Center (CAMC), a nonprofit hospital system, works with the Med Assets Group Purchasing Organization. CAMC must purchase its food through approved vendors of Med Assets. Reasons for this requirement include transaction costs, liability insurance requirements, and contractual agreements. (Marinero, 2012)

While CAMC’s General Manager of Food and Nutrition Services is interested in buying as much locally grown food (within 150 miles) as possible, he must be able to source it through approved vendors. CAMC does have an approved vendor based in Charleston—Corey Brothers, Inc.—and hopes that as West Virginia’s food economy continues to expand, Corey Brothers will be able to source more from growers in the state to meet CAMC’s demand for local produce. (Marinero, 2012) (See Section 6.2 for a profile of Corey Brothers).

As CAMC’s purchasing restrictions demonstrate, local producers may have to work with larger regional distributors to access the private hospital sector. Producers who comply with federal and state regulations, have the appropriate liability insurance and food safety certifications, and can meet minimum quantity requirements may be able to become approved vendors for group purchasing organizations and sell directly to hospitals.

Restaurants

Richwood Grill

Richwood Grill co-owner and chef Marion Ohlinger has nearly 30 years of experience in the restaurant industry. Prior to opening his first restaurant in Morgantown, he spent six years working at a farm-to-table restaurant in Seattle and two years as a chef in Alaska, where high shipping costs necessitated sourcing as much locally as possible. Driven by a desire to raise awareness of the local food movement in his home state, Ohlinger returned to West Virginia and opened Solera, a Latin-themed fine dining establishment, in

²⁷ Information on becoming a “vendor” can be found in the West Virginia Purchasing Department’s *Vendor Procurement Guide*, available at www.state.wv.us/admin/purchase/vrc/VPG/VendorProcurementGuide.pdf.

²⁸ For detailed information on the bidding process see the West Virginia Purchasing Department’s *Vendor Procurement Guide*, available at www.state.wv.us/admin/purchase/vrc/VPG/VendorProcurementGuide.pdf.

Morgantown. Ohlinger sourced as much as he could locally, but found there was a lack of supply to meet much of Solera's demand. (Ohlinger, 2012)

Figure 20: Marion Ohlinger surrounded by herbs and peppers growing on Richwood Grill's balcony



Photo: Cassie Peters

Ohlinger's attempts to source locally eventually started to pay off; farmers looking to find new markets for their products began approaching him and supplying the restaurant with local produce and meats. The Morgantown Farmers' Market also became a growing source for local products. As time passed, Ohlinger developed solid relationships with his local suppliers. In 2009, his commitment to keeping money in his local economy and his belief that the local farming community had grown enough to support a farm-to-table restaurant prompted him to close Solera and open Richwood Grill. (Ohlinger, 2012)

Regularly changing the menu to reflect seasonal availability enables Richwood Grill to source 80% of its product locally (within 100 miles) in season and 80% of its product regionally (within a one-day drive) during the off season. Frequent menu revisions to make use of seasonal items are time consuming and require Richwood Grill's chefs and cooks to be highly skilled and adaptable. Ohlinger is quick to point out that although his costs for product and kitchen staff are much higher than many restaurants, he must keep his prices competitive; doing so requires him to drop his profit margin significantly. Although Ohlinger acknowledges this is a personal sacrifice, he is committed to supporting the local food economy; for him it comes down to making a moral business decision. (Ohlinger, 2012)

After three years of working with local producers, Ohlinger still finds it challenging to source a consistent supply of high-quality products at affordable prices. To overcome these challenges, he works directly with his producers to let his demand drive their supply.²⁹ While sourcing directly requires more time than working with an aggregator, it keeps prices down and allows Ohlinger to obtain the freshest products and build relationships with his producers that establish trust about production practices and quality. To further keep costs down, Ohlinger visits the Morgantown Farmers' Market just before closing and buys out farmers' remaining supplies at a discounted price. Efficiency in operations and minimizing waste product by utilizing everything that comes into the kitchen further contribute to keeping costs down. (Ohlinger, 2012)

While Ohlinger has seen the supply of local food grow and his customer base increase since opening Richwood Grill, he believes consumer education is a key component to growing a local food economy. In his experience, many of his customers do not expect local food that is sustainably produced on small farms to taste different than commercially produced foods; however, it often does. In addition to supporting his local economy, Ohlinger's mission includes educating the public about the richness and diversity of his suppliers' products in the hope that it will lead to more awareness of the benefits of eating locally. (Ohlinger, 2012)

²⁹ Richwood Grill sources from five primary producers who deliver product on a weekly basis year-round; another 15 producers supply products seasonally (Ohlinger, 2012).

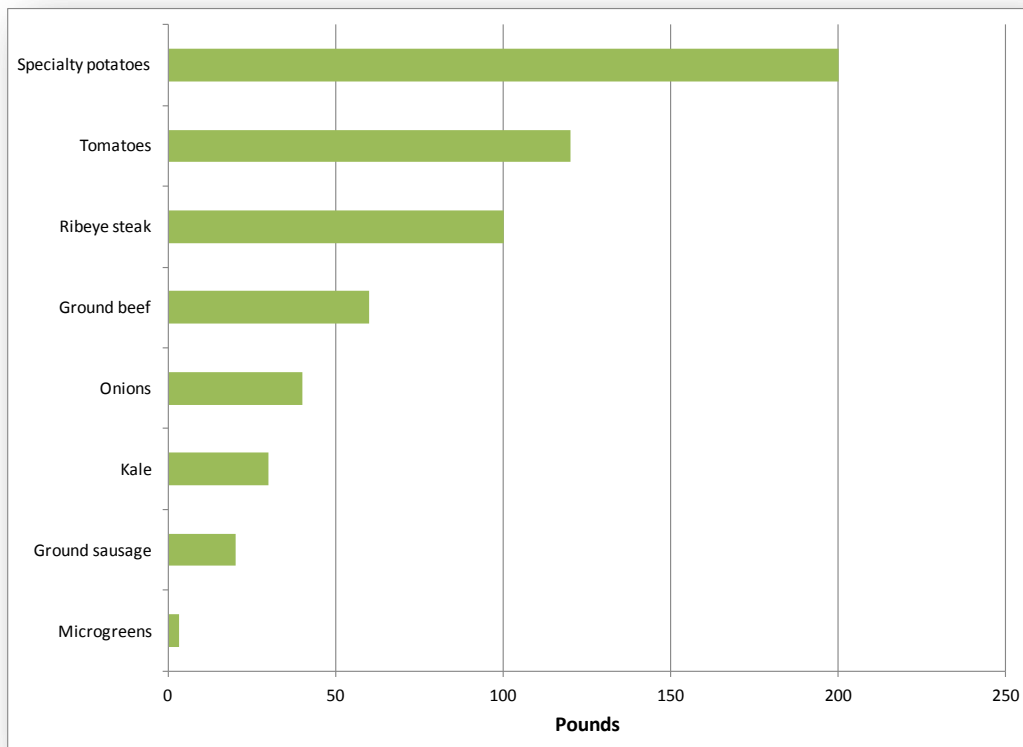
Bluegrass Kitchen

Charleston’s Bluegrass Kitchen specializes in eclectic comfort food made from fresh ingredients (Bluegrass Kitchen, 2012). When Keeley Steele opened Bluegrass Kitchen seven years ago, she was interested in working with local producers to supply the restaurant with fresh meats and produce. Unfortunately, Steele found that there were not many local producers to source from. Faced with a lack of local food, Steele opted to source organic products through a national wholesaler. (Steele, 2012)

Bluegrass Kitchen’s first locally sourced product was meat raised by West Virginia–based Sandy Creek Farms. Over time, Steele was approached by other local producers who were interested in supplying the restaurant with fresh meat, eggs, and produce. Steele has seen the number of local small farmers increase over the past seven years. Today, she still works directly with some producers, and also sources through local-food distributor JL Foods and the Monroe Farm Market. (Steele, 2012)

While the supply of local food has increased, there are still challenges inherent in working with small local producers. For example, small producers often cannot match the price of wholesale distributors. Steele is generally able to pay a slight price premium to source her food locally, but for some items—such as spring lettuce mix—the premium is simply too high. Small producers accepting orders and then lacking sufficient quantity to fill them has also been problematic at times. Despite the challenges, Bluegrass Kitchen is currently sourcing roughly 75% of its product locally in the summer months and 50% in the winter months. In addition to the restaurant’s weekly purchases shown in Figure 21, Steele purchases roughly 60 dozen eggs per week and uses as much locally sourced food as possible in her two other restaurants, Frütcakes and Tricky Fish. (Steele, 2012)

Figure 21: Bluegrass Kitchen’s estimated weekly local food purchases



Source: Steele (2012).

3.4 Mainstream marketing supply chains

Mainstream marketing refers to supply chains that market products to consumers through larger retail outlets, such as national grocery stores. Generally, “[m]ainstream supply chains rely on national and international networks to deliver products to consumers.” (King et al., 2010, p. v) Mainstream supply chains may rely on local distribution services and may also obtain products from local growers when available. Local producers marketing products through mainstream supply chains generally do not receive price premiums for local products; a recent study found that producer prices in mainstream supply chains are largely determined by prices in national or international commodity markets, even when the product is branded and sells for a fairly stable retail price. (King et al., 2010)

Mainstream marketing of local food benefits consumers by increasing access to fresh locally grown and raised products. However, for several reasons, mainstream supply chains are often more difficult for small producers to access. Mainstream distribution chains often have regional or national distribution centers, which require local producers to transport goods long distances. Minimum quantity requirements imposed by large retailers also create a barrier to access for local producers. Further, large retailers may impose certification, traceability, and liability insurance requirements that are difficult for small producers to meet.

Despite these challenges, local producers have had some success in accessing mainstream supply chains. Giant Eagle prominently features local produce from farms in Pennsylvania, Ohio, and Maryland during the summer months (see Figure 22 and Figure 23). Kroger is also working to increase its local food procurement (see Section 7.2.1 for a more detailed description of Kroger’s local food policies). Small, independently owned grocers and locally run franchises also offer opportunities for local producers to access mainstream retail markets. Shop ‘n Save stores in Belington and Philippi and the Rock Cave IGA are examples of West Virginia grocers that source produce through local farmers during the summer months (Nemeth, 2012; Hawkins, 2012).

Figure 22: Local foods display at a Giant Eagle grocery store in Morgantown



Photo: Cassie Peters

Figure 23: Display map of farms supplying local food to a Morgantown Giant Eagle in July 2012



Photo: Evan Hansen

Whether local food moves from farms to consumers through direct-marketing, intermediated-marketing, or mainstream-marketing supply chains, producers and all other participants along the supply chain need access to adequate and appropriately scaled infrastructure, including processing and aggregating facilities, distribution channels, and markets. A discussion of each of these supply chain participants and examples of entities filling these roles in West Virginia is provided below.

4. PROCESSING FACILITIES

In the broadest sense, processing facilities include packing sheds, processing facilities for value-added products (co-packing facilities, community kitchens, and food enterprise kitchen incubators), and slaughter and processing facilities for meat. Packing sheds and processing facilities enable producers to prepare goods for market or add value to raw agricultural products.

In a packing shed, producers may clean and package raw uncut produce; whole food products are merely handled. In processing facilities, whole food products (such as apples) are processed into a different form (such as apple butter). Therefore, processing facilities require a different infrastructure than packing sheds.

Processing facilities enable producers to market their products in different forms and to sell their products out of season. A processor may take heads of lettuce, spicy greens, and herbs and wash, trim, and package them into bagged salad mixes; turn tomatoes, peppers, and onions into tomato sauce; or make specialty meat products, such as ham, bacon, and sausage. Processed local food products are generally referred to as value-added products.

Any person or entity processing food for sale in West Virginia must be permitted by the appropriate regulatory authority (unless an exemption applies).³⁰ Local health departments are responsible for inspecting and permitting “food establishments”—operations that process food for direct sale to consumers. WVDHHR is responsible for inspecting and permitting “food manufacturers”—operations that process food for sale to distributors and retailers. If the products are to be sold in interstate commerce (across state lines), the food manufacturer falls under FDA jurisdiction and may be subject to inspection by that agency. Prior to engaging in processing activities, any food business entrepreneur should consult a local health department or WVDHHR to ensure compliance with all applicable laws and regulations. (Douglas, 2012)

To provide proper support to its customer base, a processor needs facilities that are approved for the manufacture of food by the applicable regulatory authority, management expertise, and access to adequate distribution channels. In order to be economically viable, processing facilities require an anchor processor and/or a sufficient entrepreneurial customer base. Facilities should be located in areas where there is ample production of suitable agriculture products. Due to the seasonal nature of agriculture, producers who can utilize the facility year-round are ideal. (Masi et al., 2010)

4.1 Packing sheds

In packing sheds, freshly harvested produce can be sorted, graded, washed, and packaged for sale. Often, these activities are performed on the farm; however, as small producers scale up, on-farm facilities may not be sufficient to accommodate the increased production. Further, institutional buyers and large-scale wholesalers may require that these activities are conducted in a certified facility. Expansions and upgrades typically require significant capital that small-scale producers may not have.

Several wholesale companies that service West Virginia buyers cite a lack of packing sheds that would enable small farmers to meet supplier requirements as one of the biggest obstacles to sourcing more food through West Virginia producers (Corey, 2012; Fuller, 2012). Our research did not identify any packing facilities that are publicly available for producers to use. Identifying suitable under- or unutilized facilities throughout the state that could be used as packing sheds could create new market opportunities for local producers.

³⁰ For example, certain food items may be produced in home kitchens (without an inspection) for sale at farmers markets. For more information see the *Farmers Market Vendor Guide*, available at www.wvdhhr.org/phs/food/Farmers%20Market%20Vendors%20Guide%20FINAL%20with%20cover.pdf.

4.2 Co-packing facilities

A co-packing facility is used to manufacture and package value-added food products, such as sauces, pickles, or jams, for clients. A co-packer generally uses the client's ingredients, recipe, and packaging materials. Upon completion of the manufacture and packaging of the product, the client markets the finished goods. Co-packing allows farmers and food entrepreneurs to market value-added products even though they may personally lack adequate processing infrastructure or culinary skills.

A co-packer is frequently a food business that manufactures and markets its own product, or line of products, under its own brand. Often, a food manufacturer's facility has the capacity to produce more than the manufacturer has demand for; this is known as excess capacity. Where there is demand for food-processing services, a food manufacturer can make use of its excess capacity by processing products for others. For example, Tasty Blend Foods, located in Fraziers Bottom, manufactures a line of dry-mix products that it markets under its own name; when the facility is not producing Tasty Blend Foods, it co-packs for other food businesses (Crouch, 2012). Co-packing provides an additional revenue stream for a food manufacturer with excess capacity. However, a common dilemma for co-packers processing seasonal local foods is that the facility's own production peak occurs when demand for co-packing services is also at its peak.

A food manufacturing facility is typically equipped for the production of a particular type of product. The variety of products a co-packer can manufacture for clients is limited by the facility's equipment. For example, a food manufacturer that produces its own line of salad dressings, which are cold-packed, typically will not have the infrastructure to process foods that need to be heated, such as soups and sauces. Each of the nine co-packers shown in Figure 25 and listed in Appendix A specializes in a particular type of product, such as dry mixes, sauces, or vegetables packed in brine. Due to the small number of specialized facilities, there is limited opportunity for producers and food entrepreneurs to have value-added products produced by co-packers in West Virginia.

4.2.1 *Oliverio Italian Style Peppers, Inc.*

Clarksburg-based Oliverio Italian Style Peppers, Inc. (Oliverio) is a family-owned business that has been producing its own line of canned peppers for 40 years (shown in Figure 24). Today, the company produces and markets several varieties of canned peppers and tomato sauces under the Oliverio name. The company has an online store and sells its products to restaurants; in addition, Oliverio products can be found in many grocery stores along the East Coast. (Oliverio, 2012)

Figure 24: Oliverio canned peppers displayed at a Kroger grocery store in West Virginia



Photo: Cassie Peters

In addition to producing its own products, Oliverio processes food for other businesses. The company primarily co-packs vegetables in brines and sauces. Oliverio recently built a new processing facility that is roughly 15,000 square feet. It is anticipated that the new facility will increase the company's capacity for processing outside products by 10 times, offering aspiring food entrepreneurs in the Clarksburg area with a new opportunity to enter the local value-added food market. (Mason, 2012)

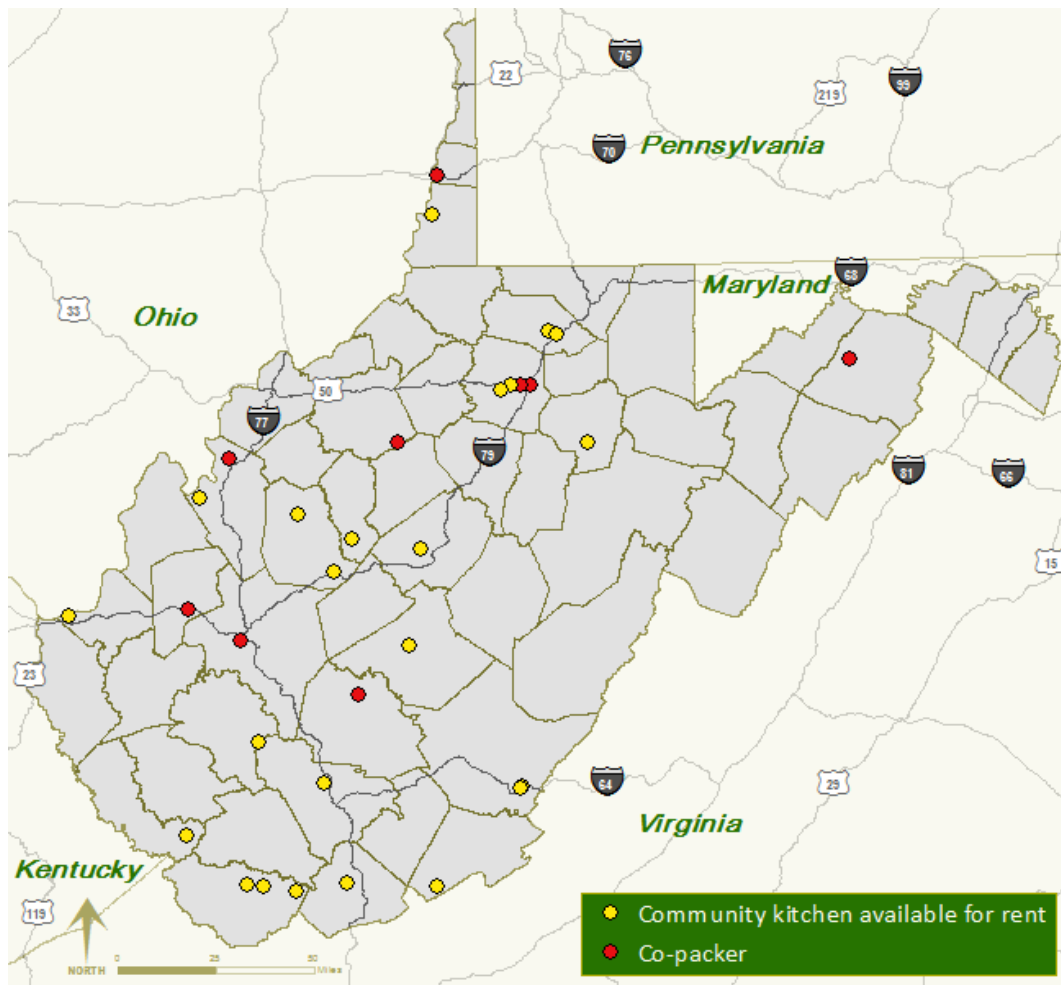
For contact information for Oliverio Italian Style Peppers, Inc. see Appendix A.

4.3 Community kitchens

Many community-based organizations, including civic centers, community centers, technical colleges, and churches have public kitchens that can be used to prepare food for sale to consumers, wholesalers, and retailers. These kitchens are often available for use by farmers and other community members, generally at an hourly rate, to process agricultural products and make value-added food items. Community kitchens allow producers to turn specialty crops into value-added products and allow aspiring food entrepreneurs to experiment and develop a market for their products without investing their own capital in an adequate kitchen and equipment (Masi et al., 2010). Any person processing food for sale in a community kitchen must comply with the applicable WVDHHR regulations, including inspection and permitting requirements. Community kitchens can also be used by individuals to preserve local food for personal consumption, thereby extending the seasons in which West Virginians can eat locally grown food products.

As Figure 25 illustrates, community kitchens are available for rent in many parts of the state. In addition to the 22 community kitchens listed in Appendix A, local churches and community centers often have publicly available kitchens that local residents can use or rent for food processing and production of value-added goods. Food entrepreneurs interested in finding community kitchen facilities should contact local county commissions, WVU Extension offices, or churches.

Figure 25: Co-packing facilities and community kitchens available for rent



Source: Sivanandan (Undated (a) and (b)).

4.4 Food business incubator kitchens

Food business incubator kitchens are shared-use processing centers that provide food entrepreneurs with the use of approved food production space, commercial kitchen equipment, packaging and labeling equipment, and storage; rental fees are generally charged (Masi et al., 2010). In addition, technical training, business planning, and marketing assistance are frequently offered. Food business incubator kitchens generally help new food entrepreneurs develop a product (or product line), learn how to work with commercial equipment, develop marketing techniques, and grow a food business until it is large enough to open its own processing facility. A food entrepreneur who is not interested in large-scale production may choose to use an incubator kitchen as his or her permanent processing facility. An incubator kitchen may house an anchor client—a large-scale producer that uses a significant amount of the facility’s capacity and covers a substantial portion of the facility’s operating costs. Without an anchor client, an incubator kitchen needs a sufficient customer base to remain financially viable. The Appalachian Center for Economic Network’s (ACEnet) Food Manufacturing and Commercial Kitchen Facility in Athens, Ohio and Blue Ridge Food Ventures in Asheville, North Carolina are two examples of successful food business incubator kitchens.

West Virginia does not currently have any food business incubator kitchens. In 2005, Mountain Bounty Kitchen—a 14,000 square foot facility featuring several commercial kitchens, walk-in refrigerators and freezers, storage space, utensils, and labeling machines—opened in Huntington. It was built to serve as a food business incubator kitchen for the Huntington area; however, due to lack of a sufficient customer base, it was unable to cover its high operating expenses. (Patton, 2012) Mountwest Community & Technical College (MCTC) took over the facility and now uses the space for its culinary arts program. It is possible that in the future MCTC will reopen the kitchen to the public; for now, the facility’s director is focusing on educating culinary arts students and fostering entrepreneurial activities for students with food business ideas. (Perry, 2012) The story of Mountain Bounty Kitchen illustrates the importance of local food system infrastructure being built to the appropriate scale.

The City of Ansted, the Ansted New Haven County Improvement Association, and the New Haven Foundation are currently exploring the possibility of leveraging the experience of a local food processor and co-packer, Blue Smoke Salsa, to expand the facility into a multi-product, multi-user co-packing operation and eventually a food business incubator kitchen. Under the proposal currently being developed, Blue Smoke Salsa would be the facility’s anchor client and would operate the co-packing facility. The kosher-certified facility is currently equipped to process salsas, sauces, jellies, and jams. If the facility is expanded, it would be equipped for the production of additional types of value-added products. The development group hopes the facility would attract a base of users within a three-county area—ideally 15-20 value-added producers who are growing food locally. (Hobbs, 2012)

The parties involved in developing this concept are interested in encouraging entrepreneurship in the area. The Blue Smoke Salsa facility currently has underutilized capacity; the facility could be used by other processors who would then enter the value-added local food market. Individuals would use the facility to manufacture their own products, perfect recipes and techniques, and expand their businesses to the point where they could open their own processing facilities. At the time of this writing, the parties were still exploring their options; if an agreement is reached, it is possible that Ansted will one day have a food business kitchen incubator. (Hobbs, 2012)

4.5 Meat and poultry processing facilities

Animals are slaughtered and/or processed in three types of establishments in West Virginia: federally inspected meat processing establishments, WVDA-inspected commercial establishments, and WVDA-inspected custom establishments. The type of establishment used by a producer dictates whether and where she may market her meat products. For meat producers, access to an establishment of appropriate scale and certification is essential.

Facilities may be inspected for slaughter, processing, or both services. Facilities that are only inspected for processing, and not for slaughter, may only have minimal processing infrastructure depending on their type of business. Not all of these facilities offer complete butchering services or work directly with farmers. A more detailed survey of processors and their facilities, including their capacity to process various types of local meat products, such as grass-fed cattle (shown in Figure 26), will be forthcoming in early 2013 from the West Virginia Food & Farm Coalition and its Processing Infrastructure Working Group.

The remainder of this section presents a general overview of the types of meat processing establishments in West Virginia.

Figure 26: West Virginia grass-fed cattle



Photo: Evan Hansen

4.5.1 Federally inspected establishments

Under federal law, the USDA Food Safety Inspection Service (FSIS) is responsible for inspecting federal slaughter and processing establishments. FSIS is responsible for ensuring that meat products are safe, wholesome, and correctly labeled and packaged. Products slaughtered in FSIS-inspected facilities may be sold in interstate commerce (across state lines), foreign commerce, and intrastate (within the state). FSIS is also responsible for overseeing state-certified establishments. (USDA, 2012e) As of this writing, there are a total of 24 FSIS inspected facilities in West Virginia. For a complete list of these facilities and the services they provide see Appendix A.

4.5.2 *WVDA-inspected commercial establishments (commercial slaughter and/or processing)*

WVDA-inspected commercial establishments³¹ operate under a cooperative agreement with FSIS and must enforce requirements that are “at least equal to” requirements imposed under the Federal Meat Inspection Act (FMIA).³² Meat products slaughtered and processed in WVDA-inspected commercial establishments may only be sold within West Virginia. (USDA, 2012e) As of this writing, there are a total of 22 WVDA-inspected commercial meat establishments in the state; of these 22 facilities, one performs only slaughtering, nine offer only processing services, and 10 perform slaughtering and processing services. For a complete list of these facilities see Appendix A.

The 2008 Farm Bill established the Cooperative Interstate Shipment Program, which allows small, state-inspected facilities with 25 or fewer employees to process meat that can be sold across state lines, provided the facility’s requirements are “the same as” requirements (as opposed to “at least equal to”) imposed under the FMIA. According to USDA, the program is intended to create new opportunities for small-scale producers and processors while increasing consumer access to safe locally produced food. Currently, Ohio is the only state participating in the program. (USDA, 2012f) It can be costly for a facility to transition from “at least equal to” to “the same as” FMIA requirements. Whether any facilities in West Virginia will participate in the program remains to be seen. (Pitts, 2012)

4.5.3 *WVDA-licensed custom establishments (custom slaughter and/or processing)*

WVDA-licensed custom establishments slaughter and process meats for human consumption. These establishments are licensed by the state, but the animals are not inspected before slaughter or during processing. Therefore, these meat products may not be “sold or offered for sale through a commercial outlet, commercial establishment distributor, or to an individual.” (WVDA, 2012) As of this writing, there are a total of 20 WVDA-inspected custom meat establishments in the state; of these 20 facilities, nine offer only processing services, and 11 offer slaughtering and processing services. For a complete list of these facilities see Appendix A.

4.5.4 *Poultry*

West Virginia does not currently have any small-scale poultry processing facilities; the only facility processing poultry in the state is owned by a fully-integrated producer that processes birds grown under contract. Under a federal small-producer exemption, a producer of poultry is allowed to slaughter up to 1,000 birds per calendar year without inspection, provided the birds are slaughtered on the premises upon which they were raised. To operate under these exemptions, certain requirements must be met.³³ These birds can be sold intrastate to consumers, restaurants, and distributors for resale, but cannot be sold interstate. The lack of small-scale poultry slaughtering facilities limits West Virginia poultry producers to selling no more than 1,000 birds per year—roughly 20 birds per week. Producers who want to slaughter and sell more than 1,000 birds per year must have them slaughtered and processed in an out-of-state facility; in order to have the birds processed in another state and sold in West Virginia, the producer must use a FSIS-inspected facility. (Pitts, 2012)

³¹ “Commercial plants are engaged for profit in the business of slaughtering animals or poultry and/or processing carcasses, meat products or poultry products for human consumption, which are to be sold or offered for sale through a commercial outlet or establishment. Licensed commercial facilities may also choose to provide custom slaughter or processing services.” (WVDA, 2012)

³² 21 U.S.C. §§ 601 et seq. (2012).

³³ For more information on these requirements contact Dr. Robert Pitts, WVDA Director of Meat and Poultry Inspection, at (304)558-2206.

5. AGGREGATION

Aggregation is the process of gathering products from multiple producers to move into processing or distribution. Local-food distributors, producer or consumer cooperatives, local food retail stores, or food hubs may aggregate local foods. Aggregators generally have facilities where food is sorted, packed, branded, and stored until shipment. Often, the products will be branded with both the producer's and the aggregator's name. Cooperatives and food hubs tend to engage in large-scale aggregation, working with local suppliers to procure food that is then sold to restaurants, institutions, wholesale distributors, and retail grocers. To succeed, aggregators need finance capital, physical facilities, active distribution systems, strong markets, and a sufficient number of growers (Masi et al., 2010).

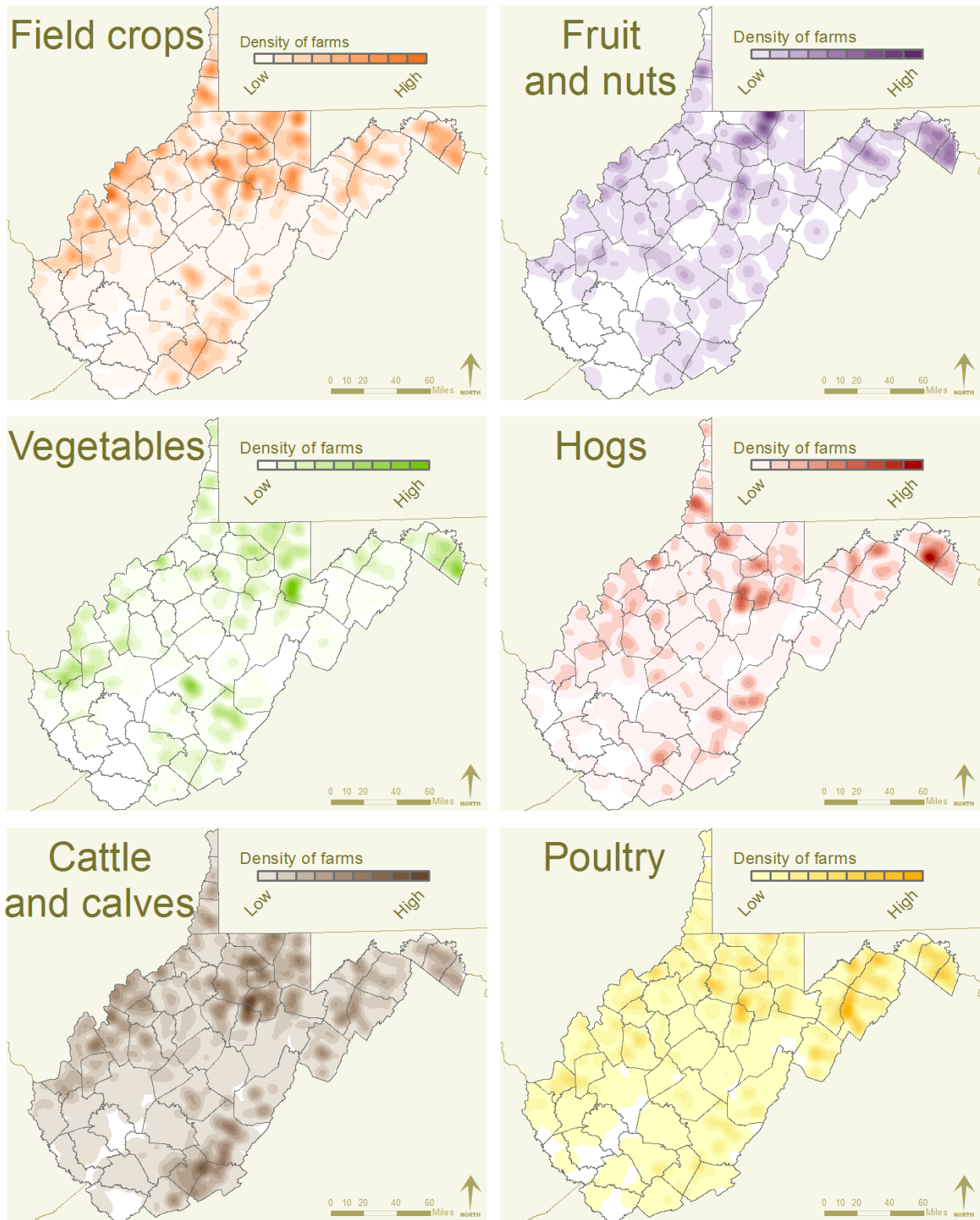
As a result of both the growing demand for local and regional food and barriers to market entry for small and mid-size local food farms, regional food hubs are increasingly important components of local food systems. According to the National Food Hub Collaboration,³⁴ a "regional food hub is a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand." (Barham et al., 2012, p. 5)

Food hubs may be essential to increasing market access for West Virginia producers. The Deputy Secretary of USDA cites a lack of access to infrastructure, including processing space, storage, warehouses, and trucks, as a challenge faced by small and mid-sized producers in meeting market demand from larger regional buyers. However, "centrally located business management structure[s] can assist with aggregation, storage, processing, distribution and marketing of locally and regionally produced foods." (Merrigan, 2011, p. 2) The lack of sorting and packing facilities in West Virginia inhibits the state's small farmers from accessing wholesale distribution channels (Corey, 2012). Identifying existing underutilized buildings in food production centers, shown in Figure 27, and equipping them to serve as food hubs may increase local producers' access to larger buyers.

While most aggregation occurs at the processing or distribution level, small farmers can also aggregate products to distribute through direct marketing. Aggregation may occur through informal arrangements among producers; for example, a vegetable farmer may gather eggs, honey, and bread from other local producers to distribute along with farm produce as part of the farmer's CSA. Aggregation allows small farmers to create economies of scale in preparing and marketing products, enabling them to package and deliver products more competitively and increase profitability. Aggregation may also provide a way for small producers to meet quantity, quality, packaging, food safety, and delivery requirements imposed by larger buyers, including restaurants, institutions, and retailers. (Low & Vogel, 2011)

³⁴ Founding members of the National Food Hub Collaboration include USDA, the Wallace Center at Winrock International (www.wallacecenter.org), the National Good Food Network (www.ngfn.org), the National Association of Produce Market Managers (www.napmm.org), and the New York City-based Project for Public Spaces (www.pps.org) (Barham et al., 2012, p. 1).

Figure 27: Production centers around which food hubs could be developed



Source: Hartz et al. (2012). Original data from USDA (2007). Map colors correspond to the dot colors in Figure 1.

5.1 For-profit aggregator: Fish Hawk Acres

In 2006, Dale Hawkins—chef, farmer, and owner of Rock Cave-based Fish Hawk Acres—started aggregating produce from four farms. Today, Hawkins operates his own farm and aggregates local food products from over 25 other farms, value-added producers, and foragers. Some of these products are distributed without processing; others are turned into value-added products in the Fish Hawk Acres kitchen.³⁵ (Hawkins, 2012) As a producer, aggregator, processor, and distributor, Fish Hawk Acres exemplifies a diverse and vertically integrated local food business.

Hawkins markets his farm products along with food he gathers from other producers under the Fish Hawk Acres brand. Fish Hawk Acres' marketing strategy is diverse, and includes direct marketing through two roadside stands and five farmers markets in the summer, a year-round CSA, a community-supported kitchen (CSK),³⁶ and a catering business. In addition, Fish Hawk Acres' products are sold to roughly a dozen restaurants as well as through a local distributor and the Rock Cave IGA grocery store. (Hawkins, 2012)

While Hawkins has seen local food production and sales increase steadily since he started aggregating, he says lack of distribution infrastructure and processing facilities, such as packing sheds, hinder the expansion of a West Virginia local food system. Hawkins has overcome these challenges by maintaining a website to market Fish Hawk Acres' products, opening his own preparation site and processing facility, establishing nine CSA pickup locations, and employing the U.S. Postal Service to deliver Fish Hawk Acres' products statewide. In addition to local fresh and prepared foods and catering services, Fish Hawk Acres' online market offers its customers high-quality products from around the world. These offerings complement the selection of local products and also provide additional revenue during the off-season, when the supply of local food decreases. (Hawkins, 2012)

Hawkins, who is working toward GAP certification for his own farm, does not currently require his producers to be GAP-certified. Hawkins performs on-site inspections or farm visits to verify production practices and prefers his producers keep their food as chemical-free as possible. Producers set their own prices and are responsible for delivery to the Rock Cave aggregation facility. Fish Hawk Acres is a non-exclusive distributor for its producers, meaning it places no limit on the amount of direct marketing its producers may engage in. (Hawkins, 2012)

Hawkins cites lack of supply as one of the biggest challenges to operating a local food business. To address this issue, he has installed three greenhouses, two high tunnels, and 40 cold frames on his farm over the past five years. These season extension techniques allow him to produce year-round. He also works with his producers to expand their production, further increasing Fish Hawk Acres' supply and strengthening the local food system. (Hawkins, 2012)

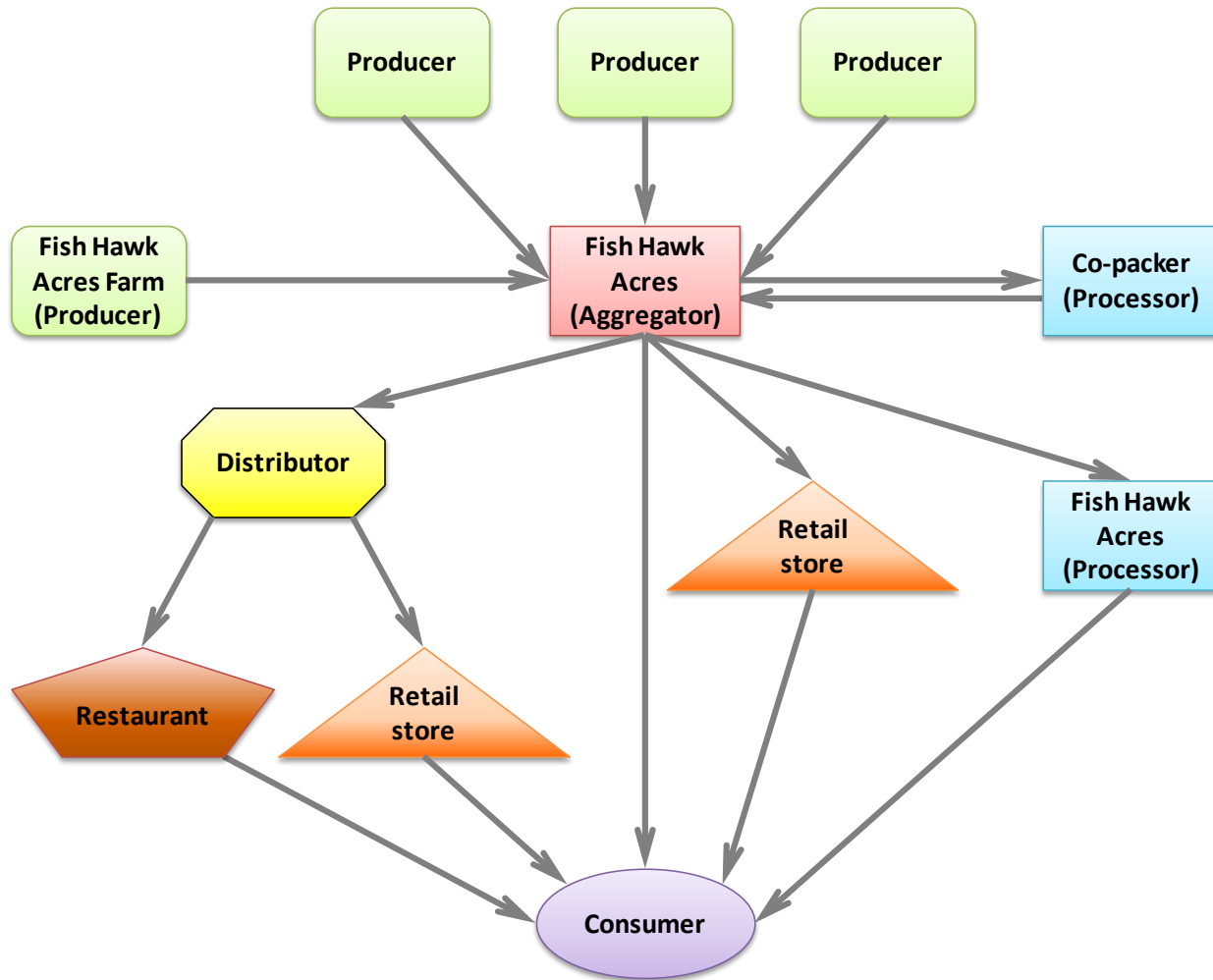
Through the development of a diverse business model (see Figure 28) and solid partnerships, Hawkins and Fish Hawk Acres are working to develop a stronger West Virginia food system. Despite being located in a rural area far from population centers, Hawkins has found ways to distribute Fish Hawk Acres' products throughout the state. In addition, the CSK model makes local food more accessible to consumers who either lack the time or knowledge to prepare meals using fresh local products.

For contact information for Fish Hawk Acres see Appendix A.

³⁵ While Fish Hawk Acres processes the majority of its value-added products in its own facility, co-packers are used for some products.

³⁶ According to Fish Hawk Acres' website, its CSK "grow[s] and buy[s] fruit, vegetables, meat, and eggs from local farms and transform[s] them into meals, all the while using super-high standards." The CSK model takes the CSA model one step further, delivering not just local sustainable products, but rather providing the consumer with a meal. (Fish Hawk Acres, 2012a)

Figure 28: Fish Hawk Acres' supply chain



Source: Hawkins (2012).

5.2 Cooperative model: Tuscarora Organic Growers Cooperative, Inc.

Tuscarora Organic Growers Cooperative, Inc. (TOG) is a grower cooperative based near Maddensville, Pennsylvania (approximately 35 miles outside of West Virginia). TOG was formed in 1988 to bring small organic farms together to coordinate production, create economies of scale, and increase market access. TOG deals exclusively in certified-organic fruits and vegetables. (TOG, 2012)

TOG aggregates products at its warehouse and performs all marketing and distribution activities. Growers pack, label, and deliver their products to TOG's warehouse. Growers must adhere to strict food safety, harvesting, grading, packing, and storage standards, detailed in TOG's 18-page set of guidelines (TOG, 2012). All products are branded with the TOG label in addition to the source farm's label (Crawford, 2012a). Double branding allows each farm to maintain its identity while also benefiting from TOG's reputation.

Matching supply with demand is a major component of TOG's business model. The TOG production coordinator works closely with buyers to assess demand and then creates a detailed annual crop plan to drive the supply. The plan informs growers about the market for various crops. Growers commit to grow specific crops listed in the plan and then have exclusive rights to market those products through TOG in the coming year (once the demand for a product is satisfied by grower commitments, no other growers may

commit to grow that crop). This system allows TOG to meet buyer demand while eliminating grower competition. (Crawford, 2012a)

In addition to production coordination, new technologies and long-term partnerships with other regional organic producers have contributed to TOG's success. The use of season extension techniques, greenhouses, and storage methods has enabled TOG to distribute local produce year round and maintain profitability every month of the year (Crawford, 2012a). Currently, TOG works with several nonlocal sources in the winter months—including a producer cooperative in Vermont and certified-organic citrus growers in Florida—to bring in some additional products. However, with each passing year, TOG has successfully reduced its nonlocal sourcing in the winter months. (Crawford, 2012b)

Today the cooperative has 45 members and works with roughly 50-60 farms. Through its 10,000 square foot warehouse, TOG moves 100,000 cases of produce per year; annual sales total \$2.5 million. The majority of its produce is marketed to restaurants, retail food cooperatives, and grocers in the Washington, D.C. and Baltimore areas. (Crawford, 2012a)

The story of TOG illustrates the impact of a coordinated producer cooperative and serves as a model for future producer cooperatives in West Virginia. It also presents an immediate opportunity for some West Virginia producers. The cooperative has a history of working toward increased membership and production and could work with West Virginia growers of certified-organic produce, provided the farms are located within approximately 100 miles of TOG's headquarters. West Virginia producers would be responsible for delivery; for producers without access to delivery infrastructure, TOG will pick up for a fee. (Crawford, 2012a)

5.3 Institutional local food supplier: Kilmer's Farm Market

Kilmer's Farm Market is a farm operation, as well as an aggregator and distributor, based in Inwood. Owner Derek Kilmer, a third-generation tree fruit and berry producer, and his family operate the second-largest commercial orchard in the state (see Figure 29). Historically, all of the family's products were sold to major distributors and chains. Motivated by a desire to retain more of the sales dollar, Kilmer established Kilmer's Farm Market and began direct marketing and, eventually, supplying local institutions with his family's produce. (Kilmer, 2012)

Kilmer did not set out to be an aggregator, but his institutional customers liked the way he conducted business and requested that he source additional products to fill their entire demand for produce, not just what he could supply seasonally from local sources. He saw an opportunity in the large wholesalers who were already traveling to Inwood to pick up his family's apples. Through these established relationships, Kilmer was able to arrange for delivery of nonlocal produce directly to his base of operation. Kilmer believes that offering his customers local and nonlocal products has made it easier for him to sell local food; his customers enjoy the ease of one-stop shopping and Kilmer fills orders with as much local produce as he can. (Kilmer, 2012)

To do so, Kilmer sources from approximately 15 local farms in West Virginia, Virginia, and Maryland (Kilmer defines local as within 75 miles of Inwood). While Kilmer's Farm Market has GAP and Good Handling Practices (GHP) certifications and is licensed under the Perishable Agricultural Commodities Act (PACA), Kilmer does not require that his farmers obtain any certifications. He encourages GAP certification, but also accepts the reality that unless it is mandatory, many farmers do not want to spend the time and money to obtain certification. Farmers selling to Kilmer's Farm Market are required to carry liability insurance (most of the company's suppliers maintain at least \$1 million in liability coverage). After five years, Kilmer still faces challenges in sourcing food locally, including a lack of consistent supply from year-to-year and competition from nearby metropolitan areas for local producers' goods. To overcome these challenges, Kilmer now grows more vegetables on his own farm and contracts with local producers to grow certain items. (Kilmer, 2012)

Figure 29: Derek Kilmer at the Kilmer packing facility



Photo: Savanna Lyons

Kilmer has found his niche in the institutional market. Kilmer's Farm Market is working with at least five West Virginia school districts in the 2012 academic year. Two VAMCs source their produce through Kilmer's Farm Market. Kilmer has also entered the Washington, D.C. institutional market, where he works with several schools and is DC Central Kitchen's³⁷ largest produce supplier. Kilmer is currently in search of a cold-storage warehouse in Charleston, which would enable him to distribute to institutions throughout southern West Virginia. (Kilmer, 2012)

While quality, consistency, and high-quality customer service have all contributed to the success of Kilmer's Farm Market, Kilmer says that above all, his customers are the key to his success. Their willingness to try a new model and work collaboratively has made the business's rapid growth possible. (Kilmer, 2012)

For contact information for Kilmer's Farm Market see Appendix A.

³⁷ DC Central Kitchen is an organization that combines culinary job training for unemployed men and women with delivery of over 5,000 meals per day to low-income and at-risk residents of Washington, D.C. For more information on DC Central Kitchen visit www.dccentralkitchen.org/mission/#.

6. DISTRIBUTION

A distributor moves goods from producers, processors, aggregators, and/or wholesalers to buyers, including institutions, restaurants, retailers, and consumers. Distributors can be local, regional, national, or international. Their business models are extremely diverse. For example, a distributor may be a broker who never actually handles the product, but merely negotiates sales and arranges for delivery. In contrast, a distributor may take on a broad range of activities, including aggregating, marketing, and delivering products and providing education and display materials to retailers to assist with merchandising activities. Generally, the more services a distributor provides, the higher the share of the dollar the distributor retains.

Distribution can be performed by producers themselves, or through aggregators, small-scale regional distributors, or large-scale distribution companies. Participants may also include trucking companies or brokers. A sufficient distribution system expands markets for producers, increases efficiency, and can reduce transportation costs. In order to be economically viable, distributors need strong markets, a stable supply base, aggregators, and finance capital to acquire trucks and other equipment (Masi et al., 2010).

Distributors of certain foods may need to be licensed. For example, a distributor of meat or poultry products³⁸ is required to obtain a license from the WVDA's Commissioner of Agriculture; this license must be obtained prior to the initiation of operations (WVDA, 2012). Any person distributing eggs in West Virginia must apply to the WVDA's Commissioner of Agriculture for an "Egg Distributor Permit" at least 30 days before distributing eggs in the state.³⁹ Any producer marketing 150 dozens of eggs or fewer per week of his or her own production is exempt from paying permit or inspection fees; however, such producers are required to register with WVDA.⁴⁰ Under the Perishable Agricultural Commodities Act (PACA), produce distributors who exceed certain thresholds must obtain a PACA license (USDA, 2012g). This list of required licenses is not exhaustive. Prior to initiating operations, a distributor should contact the appropriate regulatory authorities to determine whether licensing is required.

For a list of distribution companies interested in working with West Virginia producers see Appendix A.

6.1 Local distributor: JL Foods

Jim LeFew was in the business of distributing arctic char when he realized there was a need for a local-food distributor in the Charleston area. Three years ago, he responded to frequent requests for locally sourced products and started his local food distribution business, JL Foods. Today, LeFew works with West Virginia producers to supply roughly 20 restaurants and retail businesses with local food products (LeFew, 2012b). In addition to local foods, he distributes other products, including Kentucky bison, Florida alligator, and a line of spices and seasonings (LeFew, 2012a).

JL Foods currently operates within a 150-mile radius of its Charleston base. It is a full-service distributor, offering pickup services to producers and making delivery rounds. When possible, LeFew coordinates deliveries and pickups, allowing him to backhaul goods and reduce transportation costs. Backhauling addresses two of the biggest problems LeFew faces as a local foods distributor: price and distance. While there is a demand for local foods, many of his customers operate on thin margins and can only tolerate a slight price premium for local products; keeping the price of local foods competitive is critical for LeFew. However, in order to procure a sufficient supply from local producers, he logs hundreds of miles each week at

³⁸ According to WVDA, "[d]istributors are engaged for profit in the business where carcasses, meat products or poultry products are received from state inspected establishments, or establishments inspected by the United States Department of Agriculture and who store and distribute to commercial outlets, processors or individuals, and who conduct no processing. Distributors handle only products packaged at the establishment where they were manufactured, and are not allowed to open individual packages for any further processing." (WVDA, 2012)

³⁹ The West Virginia Egg Marketing Law of 1998, W. Va. Code § 19-10A-3 (2011).

⁴⁰ Marketing of Eggs Rule, WV Code of State Rules § 61-7A-3 (2011).

significant expense. Backhauling reduces both time spent on the road and transportation costs, which helps to reduce his local food prices. (LeFew, 2012a)

LeFew continues to expand his sales and introduce new products to his customers. He is currently pursuing a bifurcated expansion strategy, working with current suppliers to increase production to meet more of his current customers' demand and working to expand both his delivery and local food sourcing areas. In order to continue growing its business, JL Foods needs to secure a storage facility and distribution base and a larger refrigerated delivery truck. While LeFew believes sufficient demand for local food exists to support an expansion of his business (and a local food distribution system in the state), lack of access to capital in the form of both grants and loans for local food distributors, combined with supply, price, and distance issues, currently hinder his ability to scale up. (LeFew, 2012a)

For contact information for JL Foods see Appendix A.

6.2 Regional distributor: Corey Brothers, Inc.

Corey Brothers, Inc. (Corey Brothers), a family-owned business, has been distributing produce in West Virginia for over a century. The Corey family began peddling produce in 1895 and has been known as Corey Brothers since 1917. Corey Brothers deals exclusively in produce. The company sells to independent and chain restaurants, hotels, resorts, schools, hospitals, and other establishments throughout most of West Virginia and border areas of contiguous states. (Corey, 2012)

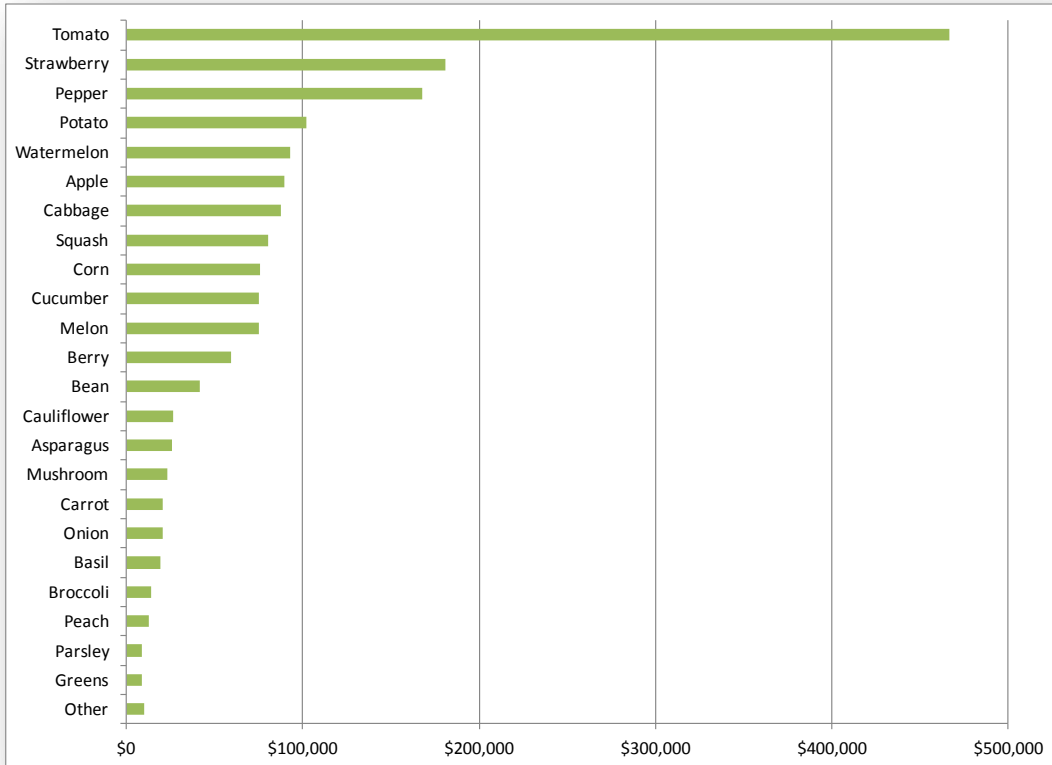
The company strives to source as much as possible from local producers; many of the company's customers are requesting local produce (Corey Brothers defines local as within 200 miles of Charleston) (Corey, 2012). In addition, working with local growers who practice sustainable agriculture is a major component of the company's Sustainability Policy (Corey Brothers, Inc., 2011). Based on 2011 sales, Chief Executive Officer Bob Corey estimates that if the supply existed, the company could purchase over \$1.7 million worth of fruits and vegetables from local producers during the West Virginia growing season (see Figure 30) (Corey, 2012).

Corey Brothers sources some fruits and vegetables from West Virginia producers and also works with producers in contiguous states to meet some of the demand for local produce. Quality is extremely important: Products must be clean and uniform, packed in the proper boxes for shipping and in a manner that meets customer standards, properly labeled, and in compliance with all food safety standards. GAP certification is not required, but it is preferred. Many of Corey Brothers' customers require GAP certification, so products sourced from GAP-certified farms are more marketable. Suppliers are required to have a basic USDA inspection or third-party food safety audit. Corey Brothers itself has an annual food safety audit and voluntarily has a full HACCP plan in place. The company prefers all suppliers maintain at least \$2 million in liability insurance. Suppliers must sign a release of liability and a hold harmless agreement. (Corey, 2012)

In order to expand West Virginia's local food system, producers need access to distribution channels beyond direct marketing. Corey sees the lack of high-volume production in the state as the biggest challenge to creating a West Virginia food system; if producers cannot meet minimum quantity requirements, they cannot access distribution channels. In addition, the lack of packing sheds for sorting, grading, and packing products to meet industry and customer standards hinders the development of the state's local food system. Increasing food safety regulations are another challenge small producers face. If local producers place high price premiums on their products, they will limit their access to mainstream distribution channels, which require competitive pricing. Corey believes that by working collectively, small producers can overcome some of these challenges. Further, the development of a West Virginia-grown brand could create consumer demand for West Virginia products throughout the state. His company is committed to working with local and regional producers whenever possible to rebuild a sustainable local food economy. (Corey, 2012)

For contact information for Corey Brothers, Inc. see Appendix A.

Figure 30: Corey Brothers' demand for fresh produce during the West Virginia growing season



Source: Corey (2012).

6.3 Regional distributor: Paragon Foods

Paragon Foods, a regional fresh-foods distributor based in Pittsburgh, sold over \$7 million in local foods in 2011. As shown in Figure 31, the company defines local food as food produced within 150 miles of Pittsburgh. (DiCenzo, 2012a) The company distributes from Cleveland, Ohio to State College, Pennsylvania and from Erie, Pennsylvania to just south of Morgantown, West Virginia (DiCenzo, 2012b). While it is not currently working with any West Virginia producers, the company would be interested in developing relationships with West Virginia farmers (DiCenzo, 2012a). Paragon Foods therefore presents a significant opportunity for West Virginia producers north of Charleston to access a regional distribution channel.

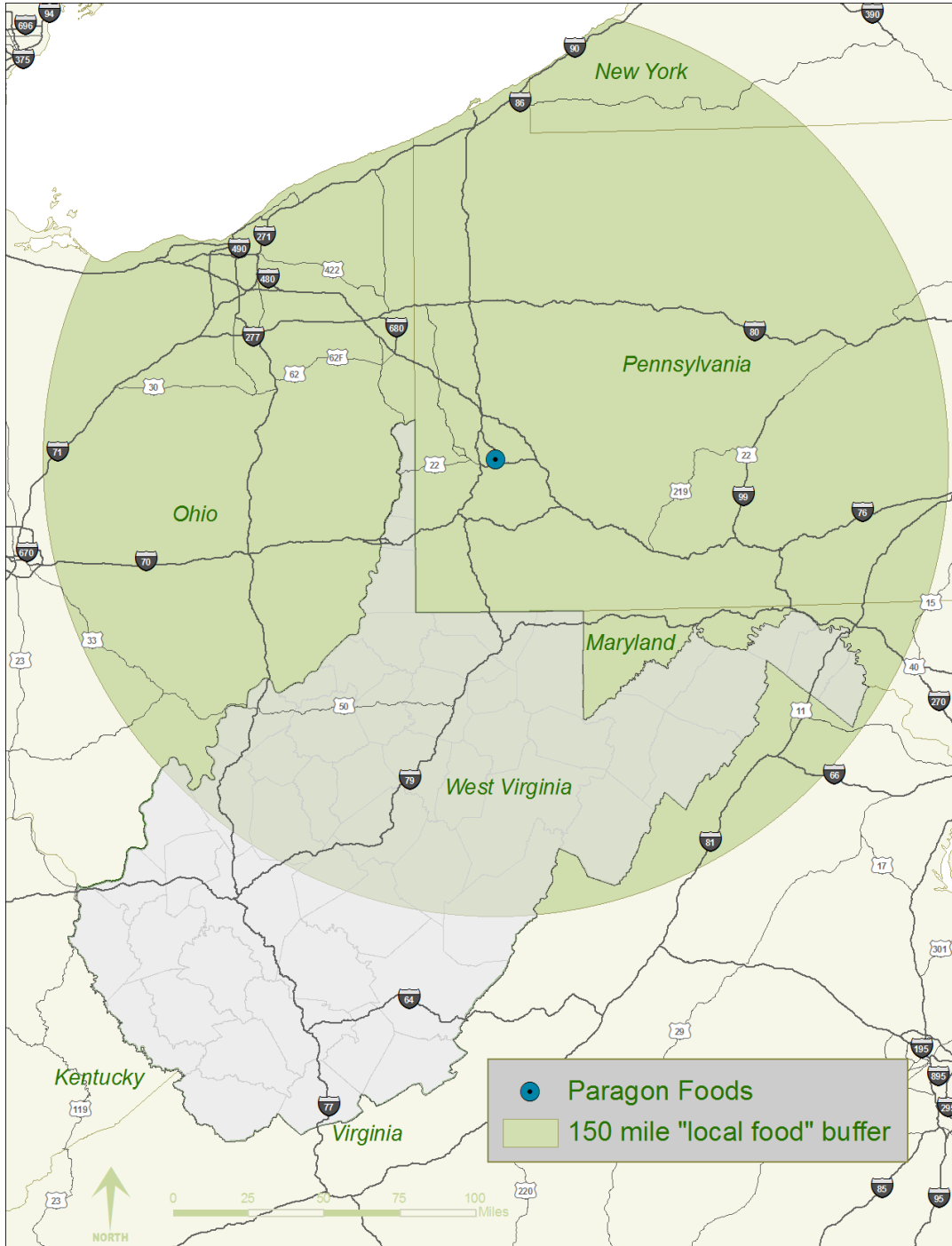
Paragon does not exclusively source products locally, but has steadily increased its supply of local products since 2001, when the company first started working with farmers in western Pennsylvania. In addition to local fresh produce, the company also distributes local dairy and chicken. (Paragon Foods, 2012) The company has established a division for local products, which are marketed under the company's "Farmer's Table by Paragon" brand; the products are also branded with the name and location of the farm or producer (DiCenzo, 2012a).

Paragon generally relies on producers to approach the company to establish a relationship. In order to be accepted as a "Farmer's Table by Paragon" producer, quality, consistency, and quantity standards must be met; minimum quantities are commodity-specific. Prior to acceptance as a Paragon producer, a representative will visit the farm to ensure the company's standards are met. In addition, a producer must be GAP-certified and, if required by federal law, must have an active HACCP plan in place. Paragon is currently in

the process of implementing a third producer requirement, third-party certification under the Produce Traceability Initiative (PTI). (DiCenzo, 2012a)

For contact information for Paragon Foods see Appendix A.

Figure 31: Paragon Foods' "local foods" sourcing area



Source: DiCenzo (2012).

7. RETAIL MARKETS

Retail markets for local food increase producer access to consumers and increase consumer access to fresh locally grown and raised products. Retail markets include community-based local food retail stores that are often operated as nonprofit organizations or cooperatives, locally owned grocery stores, and regional and national grocery chains. Community markets and locally owned grocers may be more accessible to small producers because regional and national chains often have centralized distribution systems and impose minimum quantity and certification requirements.

7.1 Community-based local food retail stores

Community-based local food retail stores are a new form of retail outlet emerging with the development of local food systems. These locally owned retail stores are generally small and tend to primarily sell local products; they typically work directly with producers. They are often run by nonprofit organizations, consumer cooperatives, or producer cooperatives. Depending on the business model of the store, products may be purchased outright or sold on consignment.

Because the long-term goal of community-based local food retail stores is generally to build community by increasing producer access to markets and consumer access to local foods and other products, rather than to make a profit, support from the community at large is essential to the success of these stores. They may rely heavily on volunteers to staff the store and provide management services. Property owners interested in revitalizing an area and building the local economy may offer community-based local food retail stores reduced rent or donated retail space.

7.1.1 *Rural community-based local food retail store: Barbour County Community Garden Market*

The Barbour County Community Garden Market, located in Philippi, sells local produce, eggs, meat, and baked goods. The Market, established in 1992, underwent a major transformation in 2010—its infrastructure was expanded through the construction of a covered outdoor display area and new produce shelves (BCCGM, 2012). In addition, the Market began offering more services to its producers, including advertising, merchandising, and display and sales activities (see Figure 32) (Trefethen, 2012). In 2011, the 1,200 square foot Market sold over \$24,000 of local food supplied by 84 producers (BCCGM, 2012).

In order to qualify to sell at the Market, a producer must be located within Barbour County or a contiguous county. A farm visit is generally performed to verify on-site production. Producers are not required to obtain GAP certification or independent liability insurance (the Market carries a \$5 million umbrella liability policy). The Market does not impose quantity requirements. It relies on approximately a dozen anchor producers to supply its shelves, but strives to work with producers of all sizes, “from backyard gardeners selling a basket of tomatoes to major growers.” (Trefethen, 2012)

Producers, except bakeries, deliver their products to the market, where they are assigned a producer number through which sales information—including product, weight, and dollar amount—is tracked. The Market expects products to be delivered clean and in the best condition possible. The Market and producer agree on a price and the goods are sold on consignment. Producers are paid monthly, with the Market retaining 20% of the producers’ gross sales in the form of a donation to the operation. Producers determine whether unsold goods will be reclaimed, donated to the food bank, or deposited in the Market’s compost bin. (Trefethen, 2012)

In addition to operating a storefront, the Barbour County Community Garden Market started aggregating products in 2011. The Market worked with Stonewall Resort and Alderson-Broadus College to determine their demands and then worked with producers to develop supply. The Market washed, sorted, packed, and

delivered the products and performed all invoicing. Producers made a 10% donation of gross sales to the Market in exchange for these services. The Market is currently looking to expand its aggregation activities to the Barbour County schools and area grocers. The benefits of aggregation include a streamlined transaction with one point of contact and one invoice for goods from multiple producers. The biggest challenge is a lack of quantity to meet demand. (Trefethen, 2012)

Figure 32: Tomatoes at the Barbour County Community Garden Market



Photo: Barbour County Community Garden Market

The Barbour County Community Garden Market's twentieth year looks promising. In 2012, the earlier availability of local produce as a result of the use of high tunnels in the area allowed it to open in March, several months earlier than in previous years. The Market is pursuing an expansion of its retail space in a new location, which will hopefully house increased refrigeration space, a sorting and packing facility, a USDA-certified meat processing facility, and a local food café. Increased training programs for producers on food safety and production techniques are also being developed. (Trefethen, 2012)

The success of the Barbour County Community Garden Market can be attributed to several factors. As a project sponsored by a large, faith-based nonprofit organization, the Market benefits from access to existing infrastructure, the ability to accept grants and donations, and a strong volunteer base. Operating a brick-and-mortar storefront allows for consistent availability to the end user, which is essential since approximately 90% of the Market's customers are local. The Market's success also rests on its ability to stock high-quality, desirable products. (Trefethen, 2012)

For contact information for Barbour County Community Garden Market see Appendix A (listed under Aggregators).

7.1.2 *Urban community-based local food retail store: The Wild Ramp*

The Wild Ramp, launched in July 2012, is a year-round indoor local food retail store located in Huntington (see Figure 33). Operated as a nonprofit organization, the store's mission is "to operate a year-round community-supported market that provides a viable economic outlet for local food producers while providing consumers access to locally grown agricultural products." Unmet demand for local food in the area and lack of a year-round marketplace for producers to sell their goods prompted the establishment of The Wild Ramp. The store's founders hope to keep more food dollars in the community and to demonstrate to small-scale and beginning farmers that there is significant demand for local products, thereby encouraging increased local production of fruits, vegetables, eggs, meat, dairy, and artisanal and value-added goods. (Garrett, 2012a)

Figure 33: The Wild Ramp storefront and fresh local herbs



Photos: The Wild Ramp

Strong partnerships and community support, a solid market model,⁴¹ and a dedicated steering committee made it possible for the idea of a Huntington local food store to transform into an operating retail food hub in less than six months (Garrett, 2012a).⁴² Funding to establish The Wild Ramp came from community investors, donors, and lifetime membership fees. In the future, The Wild Ramp may seek grant funding for improvements. The store is currently managed and staffed entirely by volunteers; as the retail operation becomes self-sustaining, a paid management position and several part-time positions are anticipated. (Garrett, 2012b)

Many of The Wild Ramp's producers are located within 100 miles of Huntington. However, in order to offer a larger supply and wider array of goods, the store currently welcomes producers within a 250-mile radius of the city. As the supply of local foods increases, this radius may be reduced. (Garrett 2012a) Producers selling at the store pay an annual membership fee⁴³ of \$50 plus a \$15 monthly space fee; additional space can be rented at a reduced rate. Farmers are paid monthly, with the store retaining 10% of all food sales and 15% of all artisan sales to contribute to operating expenses. (The Wild Ramp, 2012a)

⁴¹ The Wild Ramp patterned its business model after Local Roots, a local foods producer/consumer cooperative in Wooster, Ohio. As a producer/consumer cooperative, anyone can join. Membership is not required to shop at Local Roots, but consumer members do receive benefits including the use of an online ordering system, discounts on classes and activities, the right to vote in co-op elections, and eligibility for profit distribution. (Local Roots, 2012)

⁴² At the time of this writing, The Wild Ramp had recently commenced business operations, so the success of its model has yet to be proven.

⁴³ The Wild Ramp's business model requires producers "to pay an annual membership fee in order to be able to consign their products at the market." Consumers are not required to pay a fee; however, The Wild Ramp does have a "Friends of the Market" program that provides perks to consumers who donate a set amount of time or money. (Garrett, 2012c)

Producers are responsible for complying with all applicable federal, state, and local regulations and requirements (The Wild Ramp 2012b). The Wild Ramp does not require producers to obtain GAP or other production certifications, but all producers must disclose their growing and production practices (Garrett, 2012a). A detailed list of producer guidelines can be found on the market's website.⁴⁴ It is up to each producer to obtain the level of liability insurance the producer feels is appropriate (Garrett, 2012b).

Producers are encouraged to brand and promote their products and provide information about growing practices through the use of signs, photos, and other marketing materials. Producers set their own prices and determine whether unsold product will be reclaimed, donated, or composted. The Wild Ramp is not currently providing any preparation services (washing, trimming, etc.), but performs marketing activities, including advertising, education and outreach, business and marketing training, and farm tour organization. (Garrett, 2012b)

Producers are responsible for hauling their goods to The Wild Ramp. Due to a lack of delivery infrastructure suitable for small-scale operations, the store's suppliers anticipated that weekly deliveries would be expensive and require considerable time. To overcome this barrier, some groups of neighboring farmers are working cooperatively, taking turns making the run to Huntington. (Garrett, 2012a) Farmers can further defray delivery costs to the store by combining delivery of inventory and CSA orders into one trip (The Wild Ramp offers its members use of the store as a CSA pickup location) (The Wild Ramp, 2012a).

Lack of product, particularly in the winter months, will likely be the store's biggest challenge. The increased use of season extension techniques could result in a more steady supply of local produce. Frozen meats, grains, eggs, and dairy products will be available year-round, provided local producers can keep up with the demand. To further ensure shelves remain stocked throughout the year, artisanal and value-added goods made with local agricultural products will be sold at The Wild Ramp. (Garrett, 2012a)

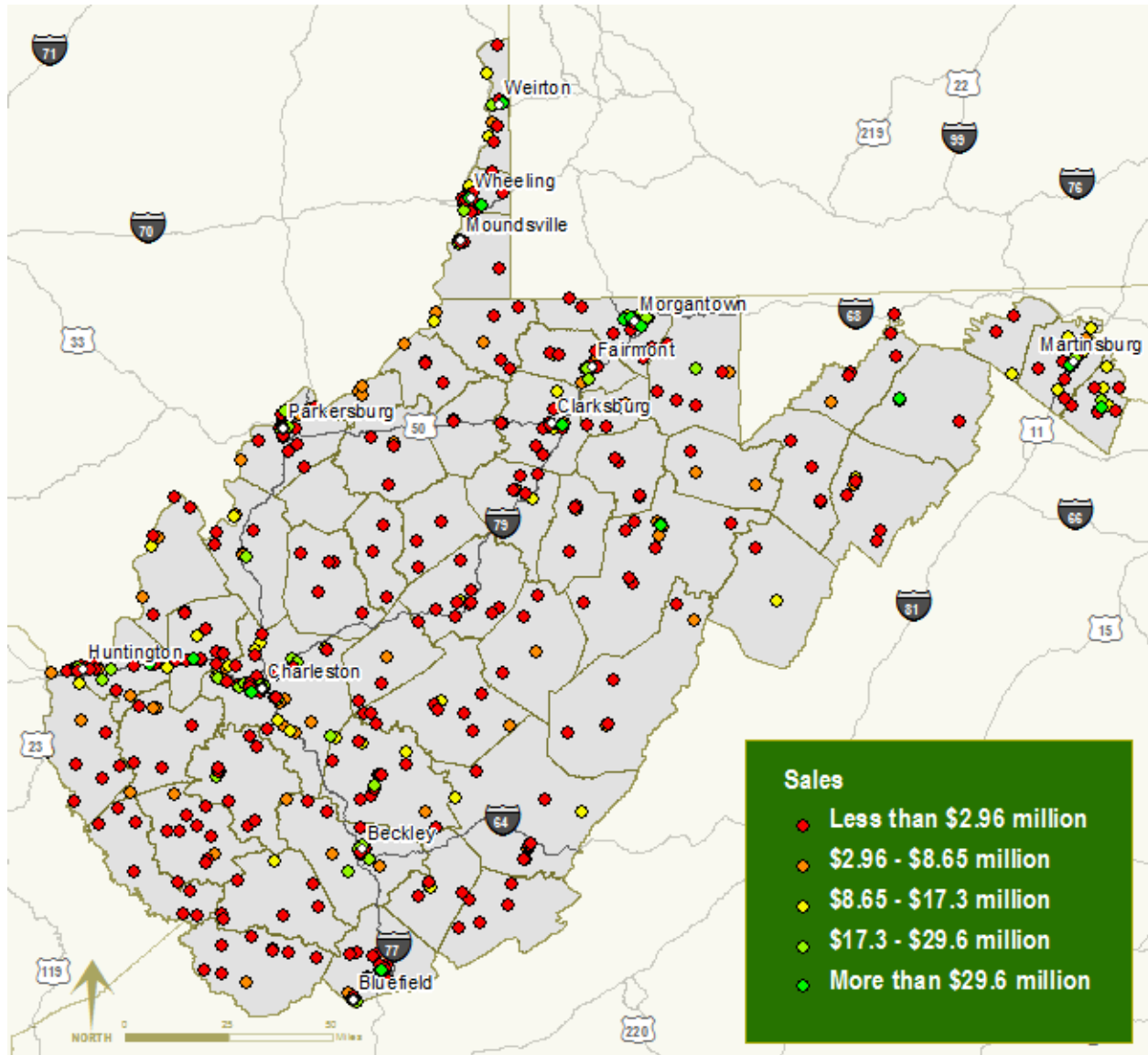
7.2 Mainstream markets

Mainstream markets include independently owned grocery stores and regional and national grocery chains. Independently owned stores may present smaller local food producers with relatively easy access to new distribution markets. Due to their smaller size, these stores will generally purchase smaller quantities than larger grocers. Since meeting minimum requirements of bigger buyers is often a barrier for small producers to access wholesale markets, these smaller stores are an attractive alternative. In addition, independently owned stores may have more flexibility in making purchasing decisions. West Virginia grocers are shown in Figure 34.

Often, large mainstream grocery chains have centralized distribution systems, which can be a barrier to access for small local producers. Aggregation and coordination with distributors to develop backhauling relationships can help producers break into these markets. As consumer demand for local food increases, it is becoming more common for national grocery chains with centralized distribution systems, including Walmart, Safeway, and Kroger, to source food from local food farms.

⁴⁴ The Wild Ramp Producer Guidelines are available at http://wildramp.org/wp-content/uploads/2012/06/producer_guidelines_june_15_2012.pdf.

Figure 34: West Virginia grocers by annual grocery sales



Source: Reference USA Database (2012).

7.2.1 *Kroger*

Kroger grocery stores are owned by the Kroger Co., one of the largest retail grocers in the country. There are 45 Kroger stores in West Virginia. (Kroger Co., 2012) West Virginia Kroger stores are serviced through a centralized distribution center located in Roanoke, Virginia. This distribution center also services 60 Kroger stores in Virginia and 16 stores in North Carolina. (Edwards, 2012; Kroger Co., 2012)

According to the Director of Produce Procurement, Kroger is actively trying to grow local food markets, including markets for fresh produce and value-added foods, such as meat products. Kroger suppliers must satisfy all federal and state requirements and produce must be packed in accordance with USDA quality standards.⁴⁵ Suppliers may be required to have GAP and GHP certification and liability insurance, depending

⁴⁵ "USDA quality standards are based on measurable attributes that describe the value and utility of the product." (USDA 2012e) For more information on USDA quality standards visit www.ams.usda.gov/AMSV1.0/standards.

on the product. Value-added producers must have a third-party food safety inspection and certification. Kroger does not currently require producers to have third-party certification for produce traceability, but is closely following the development of traceability standards under the PTI. (Edwards, 2012)

Due to its centralized distribution system and producer requirements, producers who want to market to Kroger should have sufficient product to justify transportation, packaging and labeling, and certification expenses (Kroger does not impose minimum quantity requirements). Some of its local food producers have developed networks to consolidate products for shipment to central distribution centers to reduce transportation costs. (Edwards, 2012)

Generally, prior to acceptance as a Kroger supplier, a field inspector will visit the farm to verify production practices, cooling facilities, and packaging areas. Produce needs to be cooled, or “preconditioned,” after harvest for delivery to a regional distribution center; however, pre-cooling may not be needed for direct delivery on the day the produce is harvested. Local producers may deliver products to the distribution center’s dock or directly to local stores. In order for a producer to deliver directly to local stores, the farm must be approved by a Kroger field inspector. Upon approval, the inspector notifies the Roanoke regional office that the local grower is approved. The regional office then alerts local stores to the existence of the local grower. While all price negotiations and billing are handled through the Roanoke office, local stores can buy products from these approved local growers. (Edwards, 2012)

Kroger sees some competitive advantages inherent in local products that can offset some of the efficiencies gained by large nonlocal operations. Local products may have lower freight costs, which can offset a slightly higher wholesale price. They are much fresher when delivered, which often results in reduced loss due to spoilage. Where demand is high for local products, they may command a higher price; however, remaining competitive with other retailers for similar products is the main determinant when calculating price premiums for local foods. (Edwards, 2012)

Figure 35: West Virginia products in a Kroger store in Morgantown



Photos: Cassie Peters

8. REGULATORY AND POLICY CONSIDERATIONS THAT IMPACT LOCAL FOOD SALES

As the profiles in this report demonstrate, numerous federal, state, and local regulations impact participants in local food supply chains. These regulations address, among other things, food safety issues, fair trade practices, and product traceability. Small producers in the state, particularly those selling through farmers markets and similar outlets, may be exempt from certain regulations. As small producers scale up production and access additional markets, they will have to comply with these regulations.

In addition to government regulations, producers must often meet requirements imposed upon them by aggregators, institutions, distributors, and retailers. Many of these requirements also apply to processors, aggregators, and distributors. Table 1 provides an overview of these regulations, certifications, and requirements; Table 2 indicates the supply chain participants that they may affect (refer to the Glossary for definitions of the terms contained in the following tables).

Table 1: Regulations, certifications, and requirements that impact local supply chains

	State	Federal	Other	Mandated by law	Voluntary
USDA organic certification		✓			✓
Food establishment permit	✓			✓	
Food manufacturer permit	✓			✓	
GAP certification	✓	✓	✓		✓
GHP certification	✓	✓	✓		✓
HACCP plan		✓		✓	
Liability insurance			✓		✓
PACA license		✓		✓	
3 rd party certification under the Produce Traceability Initiative (PTI)			✓		✓
Meat distributor license	✓			✓	
Value-based certifications			✓		✓

Note: This table was created using sources referenced elsewhere in this report. The category "Other" includes non-governmental organizations, industries, and buyers. Whether a regulation is mandated by law may depend on volume, type of sales, or other criteria. For example, PACA licensing requirements are mandatory, but only apply when purchases or sales exceed specified thresholds. Some mandated certifications from which a producer is exempt may be obtained voluntarily.

Table 2: Local food system participants affected by regulations, certifications, and requirements

	Producer	Processor	Aggregator	Distributor	Retail market
USDA organic certification	✓	✓	✓	✓	✓
Food establishment permit	✓	✓	✓	✓	✓
Food manufacturer permit	✓	✓	✓	✓	✓
GAP certification	✓				
GHP certification	✓	✓	✓	✓	✓
HACCP plan	✓	✓	✓	✓	✓
Liability insurance	✓	✓	✓	✓	✓
PACA license			✓	✓	✓
3 rd party certification under PTI	✓	✓	✓	✓	✓
Meat distributor license			✓	✓	

Note: This table was created using sources referenced elsewhere in this report. Which regulations, certifications, and requirements apply to a particular food supply chain actor will depend upon numerous participants, including marketing channels products are sold through, gross annual sales or purchases, size of operation, etc. For certifications or requirements that buyers may impose upon particular supply chain participants, but that are not mandated by law, this table indicates that the certification or requirement affects that supply chain participant; however it is voluntary.

Understanding and satisfying all of the above requirements can be a daunting task for small producers and other local food supply chain participants. In addition to the complexity of regulations and other requirements, compliance is often costly and can prevent small farms from accessing local and regional markets (Cantrell & Lewis 2010, p. 13). For example, traceability requirements require farmers and producers to maintain records and uniquely identify products before they move to the next participant in the supply chain. Small producers often lack the knowledge and resources required to ensure traceability, which may inhibit the growth of local food supplies (Martinez et al., 2010). Providing sound guidance on regulatory issues to producers and others moving local food from the farm to the consumer is essential to building West Virginia’s local food system.

In addition to requirements imposed by law, producers and other participants can obtain voluntary certifications to verify their production and handling practices. Voluntary certifications are often required by larger buyers; therefore, obtaining these certifications can enable producers to gain access to larger markets. Not all intermediary and mainstream buyers impose rigid requirements on producers (see Table 3 for examples of buyer requirements). Often, requirements imposed upon producers and other participants along the supply chain will depend on the product and other factors. While producers may be able to enter various markets without obtaining certifications and maintaining liability insurance coverage, producers and other supply chain participants should consider the risks inherent in engaging in commercial activity without taking precautions, including food-safety measures and protection against liability

Many voluntary certifications convey information to consumers that add value to the producer’s product. For example, consumers are often willing to pay higher prices for certified-organic products. Certifications can also make a producer’s products more marketable; while some distributors do not require their suppliers to be GAP-certified, buyers further along the supply chain may only buy products from distributors that source from GAP-certified suppliers (Fuller, 2012). WVDA offers several programs that are designed to assist producers in obtaining GAP, GHP, and organic certification and HAACP training.

Table 3: Examples of requirements imposed by intermediary and mainstream buyers

	USDA organic certification	GAP certification	GHP certification	Liability insurance	3 rd party certification under PTI
WV Department of Education					
Richwood Grill					
Tuscarora Organic Growers Cooperative, Inc.	✓				
Kilmer’s Farm Market				✓	
Corey Brothers, Inc.					
Paragon Foods		✓		✓	✓
Kroger					

Note: This table was created using sources referenced elsewhere in this report. While most buyers listed in this table do not currently *require* producers to maintain liability insurance, they all encourage producers to maintain it.

8.1 West Virginia Department of Agriculture certification programs

WVDA works with farmers and value-added producers to make the process of becoming GAP- and/or GHP-certified easy and affordable. Funding provided by the USDA Specialty Crop Block Grant program (SCBG) allows WVDA to offer a mandatory GHP/GAP certification class to West Virginia residents at a very low rate. Once a farmer or value-added producer completes the class, he or she can have an audit of the farm or facility to become GAP- and/or GHP-certified. Using SCBG funds, WVDA established a GHP/GAP cost-share program in early 2012. Under this program, a farmer is eligible to apply for and receive reimbursement of the lesser of \$750 or 75% or the cost of a *successful* audit.⁴⁶ The cost-sharing program is not restricted to farmers

⁴⁶ For more information contact Jean Smith, WVDA Director of Marketing and Development, at (304) 558-2210.

who are receiving certification for the first time; operations that already have GAP and/or GHP certification are eligible to apply for reimbursement for a future audit (audits are required annually). At this time, farmers may only receive the reimbursement once, but WVDA hopes to expand its cost-share program if additional funding becomes available. (Smith, 2012)

WVDA has also designated a portion of SCBG funds to offer West Virginia residents low-cost classes on acidified-food production (Better Process Control School), HACCP training, and Food Product Recall and Bio-Defense courses (Smith, 2012). These training classes are offered in conjunction with WVU and Virginia Polytechnic Institute and State University (Virginia Tech) and are co-sponsored by WVDA and WVU. The Better Process Control is an FDA-required course for any producer of acidified food products. Upon completion of the HACCP class, participants are HACCP-certified, which means they can write their own HACCP plans. HACCP plans are mandatory for certain items—juices, poultry, meat, and seafood—but, as food safety concerns grow, producers and other food system participants are voluntarily implementing HACCP plans. The Recall and Bio-Defense course trains producers and farmers on how to develop a recall plan, and how to assess their farm or facility for bio-security defense. Classes are currently offered approximately once per year, but it is likely they will be offered more frequently due to increasing demand.⁴⁷ (Halloran, 2012)

Figure 36: USDA organic seal



In addition to these programs and classes, WVDA has also allocated a share of its SCBG funding to offer West Virginia producers cost-sharing for organic certification. Organic certification allows a producer to label her product with the USDA organic seal (shown in Figure 36) and market her products as organic. For approximately five years, WVDA has reimbursed certified-organic producers 90% of the cost of organic certification. Since 2011, WVDA has offered producers of organic value-added products 90% reimbursement of certification costs.⁴⁸ (Halloran, 2012)

Photo: Cassie Peters

⁴⁷ For more information on HACCP classes contact Teresa Halloran, WVDA Marketing Specialist-Foods, at (304) 558-2210.

⁴⁸ For more information on organic certification cost-share programs contact Jean Smith, WVDA Director of Marketing and Development, at (304) 558-2210.

9. CONCLUSIONS AND RECOMMENDATIONS

This report is the second in a series exploring the potential for expanding West Virginia's local food system. Through literature research and extensive interviews with participants in local food supply chains, including producers, processors, aggregators, distributors, institutions, restaurant owners, and grocers, this report identified strengths and weaknesses in the state's current infrastructure and opportunities to build upon. The following key findings have emerged from this research:

- There is significant demand for local food in West Virginia, but increased production and stronger supply chains will be essential to meeting the demand
- New marketing outlets and new local food supply chains are already starting to move more local food to West Virginia consumers
- Volume buyers, including restaurants, hospitals, and schools, offer sales opportunities throughout the state
- Regulations, certifications, and requirements often impact producers' and other supply chain participants' access to distribution channels and large markets
- Expanded food processing infrastructure could help food producers produce more high-value products and access more customers year-round
- Diversified business models may enhance local food businesses' chances of success
- The development of additional online and community-based local food markets could create additional sales opportunities for local producers and increase consumer access to local foods
- The establishment of small food hubs in production centers throughout the state could increase rural producers' access to distribution channels and create economies of scale

The growing demand for local food in West Virginia presents a significant opportunity for West Virginia producers and local food entrepreneurs. Individuals, schools, hospitals, restaurants, wholesale distributors, and retail markets throughout the state are increasingly interested in sourcing more locally grown and raised products. Through the expansion of existing farms and new farmers entering the field, agricultural production for local food sales within the state is already growing. The increased number of farmers markets, online marketing opportunities, and local-food aggregators and retail markets are expanding consumer access to local food and incentivizing producers to ramp up production. Schools and hospitals throughout the state present additional opportunities for small farmers to increase sales.

Finding ways to reduce transportation costs and to create economies of scale would help rural producers successfully enter new markets. In addition, establishing small food hubs throughout the state would enable rural producers to aggregate food and transport it to larger aggregators, distributors, and population centers.

It has already been demonstrated by numerous local food producers and businesses that creative partnerships and cooperative action can benefit farmers and consumers. Fostering partnerships and strengthening networks among farmers and other groups would help build West Virginia's food system.

Ensuring that existing and new local-food businesses have access to capital is also essential to continuing to grow the state's local food system. Producers need packing sheds that will enable them to wash, sort, grade, and pack local food and gain access to new markets; refrigerators and freezers for food storage; additional processing equipment to handle increased farm production; and vehicles that can transport food across the state. Appropriately-scaled processing facilities located in production centers will also contribute to a strong West Virginia food system.

Finally, producers and other local food businesses must be able to navigate an increasingly complex regulatory environment. A guide to regulations that affect participants in the local supply chain could be developed to assist local producers in ensuring they are in compliance with applicable regulations. Educating producers about the benefits of voluntary certifications, such as GAP certification, would help them increase their market access. WVDA offers programs to help offset these costs.

The future of West Virginia's food system is promising. Consumers, institutions, and retailers are increasingly demanding more local food. Producers are expanding production. A variety of groups, including nonprofit organizations, cooperatives, and businesses, are finding ways to move food from farms to consumers. With continued expansion of production and collaboration among West Virginia's local food supply chain participants, a strong local food system can become a reality.



Photo: Cassie Peters

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West Virginia Local Food Resources

Aggregators

Co-Packers

Community Kitchens

Distributors

Meat Slaughter and Processing Facilities



Compiled by: Cassie Peters

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GLOSSARY

Aggregator: An aggregator gathers products from multiple producers and markets the products to buyers or processes them into value-added goods.

Co-packing facility: A co-packing facility manufactures and packages food products for clients for a fee. A co-packer generally uses the client's ingredients, recipe, and packaging materials. Upon completion of the manufacture and packaging of the product, the client markets the finished goods.

Community kitchen: A kitchen that is generally owned by a public entity or a community-based organization, such as a community center or technical college, and is publicly available for use by community members.

Distributor: A distributor moves goods from producers, aggregators, and/or wholesalers to buyers, including processors, institutions, restaurants, retailers, and consumers. Distributors can be local, regional, national, or international. The particular activities a distributor performs can vary greatly, from merely brokering a sale and arranging for transport to aggregating, marketing, and delivering products.

Good agricultural practices (GAP)/Good handling practices (GHP): A series of best practices designed to minimize the risk of food contamination through documentation of how food was produced, handled, and stored. Farmers and produce suppliers throughout the supply chain can obtain GAP and/or GHP certification through voluntary independent audits. For information on GAP and GHP audits and cost-share programs contact Jean Smith, Director of Marketing and Development, West Virginia Department of Agriculture, at (304) 558-2210. For general information on GHP and GAP visit www.ams.usda.gov/AMSV1.0/GAPGHPAuditVerificationProgram or see the United States Department of Agriculture's *Good Agricultural Practices and Good Handling Practices Audit Verification Program: User's Guide*, available at www.ams.usda.gov/AMSV1.0/getfile?dDocName=stelprdc5097151.

Hazard Analysis and Critical Control Point (HACCP) plan: A plan that is federally mandated for certain processors, manufacturers, distributors, and others who prepare specified foods—juices, fish and seafood, meat, and poultry—for consumption. For more information on HACCP plans contact Jean Smith, Director of Marketing and Development, West Virginia Department of Agriculture, at (304) 558-2210 or visit <http://fsrio.nal.usda.gov/haccp-0>.

Liability coverage: Insurance coverage that protects a farmer if someone is injured on a farmer's property or by a farmer's product. Farm liability insurance provides protection for liability arising out of the operations of the farm, such as bodily injury or property damage. Business liability insurance provides coverage for activities other than farming that a farmer may conduct and for liability that may be caused by the consumption of a farmer's product. (Halstead, 2012) Specifically, general liability insurance provides coverage for claims brought against a producer that are not product related; for example, a claim brought by a customer who trips over a bungee cord securing a farmer's shelter at a farmers market and suffers injury. Product liability insurance provides coverage for claims related to a producer's product; for example, a customer purchases a dozen eggs, claims the eggs made her sick, and sues the producer for food poisoning. For more information see Farmers Market Coalition, *Farmers market insurance: an introduction to policy types & common terms* at <http://farmersmarketcoalition.org/resources/resource-library/article/14-farm-business-and-marketing/465-farmers-market-insurance-tip-sheet>.



AGGREGATORS

An aggregator gathers products from multiple producers and markets the products to buyers or processes them into value-added goods. Aggregators may impose requirements on producers, including farm visits, certifications, and liability coverage; they may also have specifications regarding a producer's location (for example, an aggregator may only work with producers in specific counties or within a specified radius of the aggregator's base). Often aggregators offer their suppliers various services. For more information on these issues contact the aggregator directly.

Barbour County Community Garden Market

Philippi, WV

Contact: Reg Trefethen

(304) 457-1295

reg@heartandhandhouse.org

Monroe Farm Market

Union, WV

Contact: Jennifer Frye

(304) 646-8766

contact@monroefarmmarket.com

Fish Hawk Acres

Rock Cave, WV

Contact: Dale Hawkins, President

(304) 924-9880

fishhawkacres@gmail.com

Mountain State Naturals

Doddridge County, WV

Contact: Herk Conner

(304) 873-1652

h.connerwv@gmail.com

Kilmer's Farm Market

Inwood, WV

Contact: Derek Kilmer, Owner

(304) 263-2252

deeker8@yahoo.com

Thanks to Savanna Lyons, Program Director, West Virginia Food & Farm Coalition.

Listing does not constitute a recommendation.



COMMUNITY KITCHENS AVAILABLE TO RENT

A community kitchen is generally a kitchen that is owned by a public entity or community-based organization, such as a community center or technical college, and is publicly available for use by community members. In addition to the kitchens listed below, other community organizations may have kitchens available for residents to use for food processing. Contact a local county commission or WVU Extension office to inquire about community centers or facilities that may be available to rent. Local churches may also have facilities available.

Barbour County

Barbour County
Rt. 1 Box 396
Moatsville, WV 26405
Contact: Barbara Harvey
(304) 457-3824

Boone County

Boone-Raleigh Community Group
39037 Coal River Rd.
Whitesville, WV 25209
(304) 854-7913

Braxton County

Gassaway Community Building
P.O. Box 147
Gassaway, WV 26624
(304) 364-5111

Calhoun County

Minnora Community Center
Rt. 16, Milo Rd.
Minnora, WV 25268

Greenbrier County

White Sulphur Springs Civic Center
10 Dry Creek Rd.
White Sulphur Springs, WV 24986
Contact: Joan Gunnoe, Manager
(304) 536-2010

Harrison County

Harrison County Recreation Complex
Harrison County Parks and Recreation
43 Recreation Dr.
Clarksburg, WV 26301
(304) 624-0481

Clarksburg YWCA Cottage Industries

305 Washington Ave.
Clarksburg, WV 26301
Contact: Doris Kidd
(304) 624-6881

Jackson County

Jackson County Jr. Fair Grounds
Kitchen and Breezeway
Fair Grounds on County Farm Rd.
Cottageville, WV 25239
Contact: Pam Heis, Jackson County Commission
(304) 373-2286

Marion County

Cross Roads 4H Community Center
E. Grafton Rd.
Fairmont, WV 26554
(304) 363-9628 or (304) 363-5958

Pierpont Community and Technical College

Food Service Management Programs
1201 Locust Ave.
Room 140 Education Building
Fairmont, WV 26554
Contact: Brian Floyd, CEC-Program Coordinator
(304) 367-4405

Marshall County

The Red Barn
4th St.
Moundsville, WV 26041
Contact: Hilda Blake
(304) 845-2552

McDowell County

Ashland Company Store
TBAI Travel Beautiful Appalachia, Inc.
HC 76 Box 62
Northfork, WV 24868
Contact: Sharon Walden, Executive Director
(304) 585-7419 or (304) 862-4800

Kimball War Memorial Building

Main St.
Kimball, WV 24853
(304) 585-7789

Starland Heights Community Center

S.A.F.E., Inc.
600 West Main St.
Kimball, WV 24853
(304) 585-7950

Premier Park, Inc.

750 Stonecoal Branch Rd.
Welch, WV 24801
Contact: Lori Hill
(304) 436-2641

Mercer County

Spanishburg Community Center
P.O. Box 55
Spanishburg, WV 25922
Contact: Sue Bryant
(304) 425-1513

Mingo County

The Larry Joe Harless Community Center
202 Larry Joe Harless Dr.
Gilbert, WV 25621
(304) 664-2500

Monroe County

Wilson Mill Lodge
Rt. 219
Lindside, WV 24951
Contact: Luis Marmol
(304) 753-9032

Nicholas County

Nicholas County Memorial Park Building
Rt. 19
Summersville, WV 26651
(304) 872-3552

Raleigh County

Vass Vocational Services
703 Bluestone Rd.
Beckley, WV 25801
Contact: Sharon Hopkins
(304) 250-6060 or (304) 872-1519

Roane County

Spencer Heritage Community Building
Rt. 16
Creston, WV 26141
Contact: Bessie Belcher
(304) 354-6806

Newton Community Building

Rt. 4 Box 7 or Rt. 36
Newton, WV 25266
(304) 565-3551

Thanks to Teresa Halloran, Marketing Specialist-Foods, WVDA; Dr. Litha Sivanandan, Food Safety and Food Preservation Specialist, WVU Extension Service Families and Health Programs; and Leah Smith, Food Systems Project Coordinator AmeriCorps OSM*VISTA, West Virginia Food & Farm Coalition.

Listing does not constitute a recommendation.



CO-PACKERS

A co-packing facility manufactures and packages food products for clients for a fee. A co-packer generally uses the client's ingredients, recipe, and packaging materials. Upon completion of the manufacture and packaging of the product, the client markets the finished goods. Co-packers generally specialize in particular product types—for example, dry mixes, pickled products, or sauces. Contact co-packers directly for more information on available processing services.

Blue Smoke Salsa

Contact: Robin Hildebrand
P.O. Box 244
Ansted, WV 25812
(304) 658-3800

Gourmet Central

A Division of Diversified Nature
Associates, Inc.
47 Industrial Park Rd.
P.O. Box 984
Romney, WV 26757
(304) 822-6047

Maggie's Salsa, LLC

Contact: Maggie Cook-Garcia
1303 Turkey Rd.
Charleston, WV 25314
(304) 205-7820

Minard's Spaghetti Inn

Contact: Stan Wolf
813 East Pike St.
Clarksburg, WV 26301
(304) 623-1711

Oliverio Italian Style Peppers, Inc.

Contact: Deanna Oliverio Mason
280 N. Ohio Ave.
Clarksburg, WV 26301
(304) 622-4959

Sandy Creek Farms

Contact: Rick and Jerry Rees
Rt. 2 Box 40
Ravenswood, WV 26164
(304) 273-2569

Saseen's Restaurant, Inc.

Contact: Mark Saseen
2149 Market St.
Wheeling, WV 26003
(304) 232-3690

Sunny Hollow Farms

Contact: Jill Brookover
Rt. 1 Box 50
Auburn, WV 26325
(304) 392-2589
jill@sunnyhollowfarms.com

Tasty Blend Foods

Contact: Roy Elswick
P.O. Box E
Fraziers Bottom, WV 25082
(304) 757-0641

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DISTRIBUTORS

A distributor moves goods from producers, aggregators, and/or wholesalers to buyers, including processors, institutions, restaurants, retailers, and consumers. The following list is not a complete list of food distributors that operate in West Virginia, but of distributors that expressed specific interest in working with local food producers at the time of publication. Distributors were individually contacted by the West Virginia Food & Farm Coalition to determine their interest.

Distributors often impose requirements on their suppliers. The particular requirements indicated below are subject to change. Contact distributors directly to verify current requirements.

GAP	Good Agricultural Practices (GAP) certification required
GHP	Good Handling Practices (GHP) certification required
HACCP	Hazard Analysis and Critical Control Points (HACCP) plan required
▲	Liability insurance coverage required

Brown Food Service

P.O. Box 690
Louisa, KY 41230
Contact: Mark Qualls, VP of Procurement
(606) 638-1139
www.brownfoodservice.com

HACCP ▲

Coloma Frozen Foods

4145 Coloma Rd.
Coloma, MI 49038
Contact: Eddie Sill, Distribution Manager
(800) 642-2723
www.colomafrozen.com

HACCP ▲

Conrad Produce

Contact: Larry Conrad
(304) 525-7778

Corey Brothers, Inc.

1410 Lewis St.
Charleston, WV 25301
Contacts: Bob Corey, Barry Thomas, Bill Phelix
(304) 344-2311

Crook Brothers

250 Grey Flats Rd.
Beckley, WV 25801
Contact: Kenneth Crook, Owner
(304) 252-7711
(800) 244-9143

sales@crookbros.com
www.crookbros.com

GAP HACCP ▲

Fuller Tomato

225 7th Ave.
Huntington, WV 25701
Contact: Chad Fuller
(304) 523-1452
chadrelluf4@yahoo.com

GAP

Jacksons Meat Shop

3001 Webster Rd.
Summersville, WV 26651
Contacts: John Dizuls or Charles Jackson
(304) 872-0209
www.jacksonsmeatshop.com

Jebbias Market Wholesale Fruit

2600 Chapline St.
Wheeling, WV 26003
Contact: Paul Jebbias
(304) 233-0118

GAP GHP HACCP ▲

JL Foods

P.O. Box 8820
South Charleston, WV 25303
Contact: Jim LeFew
(304) 419-2911

jlfoods@yahoo.com



Paragon Foods

55 36th St.
Pittsburgh, PA 15201
Contact: John McClelland
(412) 621-2626 ext. 256

john.mcclelland@paragonfoods.net

www.paragonfoods.net

GAP HACCP ▲

The Produce House

600 West Pike St.
Clarksburg, WV 26301
Contact: Rosa Ann Shuttleworth, Procurement
(304) 623-5733

theproducehouse@aol.com

Tri-County Wholesale Produce

324 Frankford Rd.
Ronceverte, WV 24970
Contact: Heath
(304) 647-5249

Sysco Food Service of Virginia

5081 South Valley Pike
Harrisonburg, VA 22801
Contact: Chris Childers
(540) 432-3410




GAP GHP HACCP ▲


Thanks to Teresa Halloran, Marketing Specialist-Foods, WVDA; Daniel Eades, Extension Specialist, Community and Economic Workforce Development, WVU Extension Service; Leah Smith, Food Systems Project Coordinator AmeriCorps OSM*VISTA, West Virginia Food & Farm Coalition


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USDA-INSPECTED MEAT PLANTS


Meat processed in USDA-inspected facilities may be sold in interstate commerce (across state lines), foreign commerce, and intrastate (within the state).


	USDA-Inspected for Slaughter
	USDA-Inspected for Processing
	USDA-Inspected for Chicken Processing

A.F. Wendling, Inc.
100 Wendling Plaza
Buckhannon, WV 26201
(304) 472-5500


Ballard's Farm Sausage, Inc.
2131 Right Fork Wilson Creek Rd.
Wayne, WV 25570
(304) 272-5147


Buzz Products, Inc.
4818 Kanawha Blvd. E.
Charleston, WV 25306
(304) 925-4781



Custard Stand Food Products
364 Webster Rd.
Webster Springs, WV 26288
(304) 847-7774



Demus Italian Specialty Foods
263 Main St.
Worthington, WV 26591
(304) 287-2216


Elysian, LLC
176 Herring Rd.
Masontown, WV 26542
(304) 864-5700


Figaretti Mfg. & Dist., Inc.
420 Peters Run Rd.
Wheeling, WV 26003
(304) 242-6263


Flying W Farms, LLC
US Rt. 50 East
Burlington, WV 26710
(304) 289-3005


Greenbrier Meat Co., Inc.
Rt. 2 Box 380
Lewisburg, WV 24901
(304) 645-1710


Lone Star Western Beef, Inc.
Rt. 3 Box 5
Speedway Express
Fairmont, WV 26554
(304) 368-0691


Minard's Spaghetti Inn, Inc.

813 E. Pike St.
Clarksburg, WV 26301
(304) 623-1711



Nelson's Meat Processing, LLC

2571 Yates Crossing Rd.
Milton, WV 25541
Contact: Andy Nelson
(304) 743-5400



NYCY, LLC

471 Jefferson Cold Storage
Charles Town, WV 25414
(304) 616-7418



Peerless Meat Distributors, Inc.

960 Ragland Rd.
Beckley, WV 25801
(304) 252-4731



Pilgrim's Pride Corp. of WV

214 Main St.
Moorefield, WV 26836
(304) 538-2381



Pilgrim's Pride Corp. of WV

129 Potomac Ave.
Moorefield, WV 26836
(304) 538-7811



R. G. Gunnoe Farms, LLC

2115 Oakridge Dr.
Charleston, WV 25311
(304) 343-7686



S. S. Logan Packing Co.

120 21st St.
Huntington, WV 25703
(304) 525-7625



Shanghai Egg Rolls Co.

211 First Ave.
Beckley, WV 25801
(304) 252-4929



Spuds Bar-B-Que, Inc.

810 Maplewood Ave.
Fairlea, WV 24902
(304) 645-1020



Taylor's Meat Processing

Rt. 19 Old Beckley Rd.
Spanishburg, WV 25922
(304) 425-6569



Teets Meat Packing, LLC

Cravensdale Rd.
Elkins, WV 26241
(304) 636-9748



Top Qlty Reddi-Pak Meats, Inc.

2316 Adams Ave.

Huntington, WV 25704

(304) 429-2341



Young & Stout, Inc.

Rt. 1 Box 47

Bridgeport, WV 26330

(304) 624-5411



Thanks to Nadine Perry and the USDA's Food Safety Inspection Service. For more information, contact the USDA Help Desk at (877) 374-7435 or email InfoSource@fsis.usda.gov.

Listing does not constitute a recommendation

WVDA MEAT AND POULTRY INSPECTION DIVISION LICENSED COMMERCIAL ESTABLISHMENTS

Meat products slaughtered and processed in state-inspected commercial establishments may only be sold within West Virginia.



WVDA-Licensed for Commercial Slaughter
WVDA-Licensed for Commercial Processing

Cabell County

Andy's Custom Meats

2040 Pritchard Rd.

Ona, WV 25545

Manager: Andrew Neldon

(304)743-9455



Hampshire County – Circuit II

4G Farm & Slaughter

7.5 Mile Grassy Lick Rd.

Romney, WV 26757

Manager: Ralph R. Park

(304) 822-3693



Harrison County – Circuit II

Hyde's Meat Packing

Rt. 2, Box 70

Enterprise, WV 26568

Manager: James E. Hyde

(304) 592-1156



Kanawha County – Circuit I

Sam's Club

2500 Mountaineer Blvd.

South Charleston, WV 25303

Meat Manager: Jay Myers

(304) 746-1700 or (304) 746-1713 (fax)



Jackson County – Circuit I

Sandy Creek Farms II

1569 Silverton Rd.

Ravenswood, WV 26164

Manager: Rick Rees

(800) 487-2569 or (304) 273-0666 (fax)



Logan County – Circuit 1

RLM Butchering & Meat Processing

433 Henderson Br. Rd.

Harts, WV 25524

Manager: Warren Mullins

(304) 855-3526



Marion County – Circuit II

Sam's Club

200 Emily Dr.

Clarksburg, WV 26301

Manager: Tim Potesta

(304) 623-6410



Mason County – Circuit I

K&L Processing

907 4th St.

New Haven, WV 25265

Manager: Larry Schwartz

(304) 882-3200



Monongalia County – Circuit II

D & H Custom Meats, LLC
6378 Mason–Dixon
Blacksville, WV 26521
Manager: Dan Czako
(304) 432–8454



Sam's Club

6001 University Town Centre Dr.
Morgantown, WV 26508
Manger: Carol Lasure
(304) 598–3042



West Virginia University
Division of Animal Nutritional Science
Muscle Foods Processing Lab
P.O. Box 6108
Morgantown, WV 26506
Manager: Patrick Brett Kenney
(304) 293–1896 or (304) 293–2232 (fax)



Monroe County – Circuit I

MCTC Meats Lab
Rt. 1 Box 97
Lindside, WV 24951
Manager: Tricia P. King
(304) 753–4585



Nicholas County – Circuit I

Jackson's Meat Shop
3001 Webster Rd. Suite 100
Summersville, WV 26651
Manager: Charles & Sandra Jackson
(304) 872–0209



Pendleton County – Circuit II

Pendleton County High School Agriculture Dept.
P.O. Box 40
Franklin, WV 26807
Manager: Ronald H. Hudson, Jr.
(304) 358–7086



Preston County – Circuit II

Art's Commercial & Custom Meat Packing
149 Jackson Dr.
Tunnelton, WV 26444
Manager: Art Lipscomb
(304) 568–2352



Preston High School Animal Processing
400 Knight Dr.
Kingwood, WV 26537
Manager: Ronald Wilson
(304) 329–0400 ext. 510



Raleigh County – Circuit 1

Cook Brothers Meat Company, Inc.
851 Farley Branch Rd.
Cool Ridge, WV 25825
Manager: David F. Cook
(304) 787–3101



Sam's Club

1220 North Eisenhower Dr.
Beckley, WV 25801
Manager: Joshua Bogarat
(304) 252–6508



Shady Spring Vo–Ag Department

300 Hinton Rd.
Shady Spring, WV 25918
Manager: Joseph McDougal
(304) 256–4597 ext. 3136 or (304) 256–4711 (fax)



Randolph County – Circuit II

Campbell's Market, Inc.

Rt. 1 Files Creek Rd.

P.O. Box 280

Beverly, WV 26253

Manager: Charles Campbell

(304) 636-0860



Wood County – Circuit I

Pioneer Meat Processing, Inc.

4424 Deer Walk

Waverly, WV 26184

Manager: Jay Robertson

(304) 679-3755



Sam's Club

1100 Grand Central Ave.

Vienna, WV 26105

Manager: Brenda Ferrell

(304) 295-0280



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WVDA MEAT AND POULTRY INSPECTION DIVISION LICENSED CUSTOM ESTABLISHMENTS

WVDA-licensed custom establishments are licensed by the state, but the animals are not inspected before slaughter or during processing. Therefore, these meat products may not be “sold or offered for sale through a commercial outlet, commercial establishment distributor, or to an individual.”



WVDA-licensed for custom slaughter and processing



WVDA-licensed for custom processing only

Barbour County – Circuit II

B & L Beef

Rt. 2 Box 302

Belington, WV 26250

Manager: Bud England

(304) 823-1060



Greenbrier County – Circuit I

Bika's Slaughterhouse

Rt. 29 Springdale Rd.

Dawson, WV 25984

Manager: Robert D. Crookshanks

(304) 392-5580



Clay County – Circuit I

Bickmore Custom Meats

38 Fola Rd.

Bickmore, WV 25019

Manager: James Holcomb

(304) 587-4115



Countryside Meat Processing

1340 Old Renick Valley Rd.

Renick, WV 24966

Manager: Ervin Wagler

(304) 497-2290



Doddridge County – Circuit II

McCullough Meat Shop

Rt. 1 Box 750

Greenwood, WV 26415

Manager: Richard F. McCullough

(304) 873-1219



Harrison County – Circuit II

Vincent's Meat Market

Rt. 2 Box 335

Shinnston, WV 26431

Manager: John B. Vincent

(304) 592-1475



Gilmer County – Circuit II

The Bargain Barn

5913 WV Hwy. 5W

Glennville, WV 26351

Manager: B.G. Roberts

(304) 462-7211



Jackson County – Circuit I

Wolfe Custom Butchering

314 Evansview Rd.

Ripley, WV 25271

Manager: Wayne Wolfe

(304) 372-6025



Kanawha County – Circuit 1

Hilltop Meats
2835 Poca River Rd.
Sissonville, WV 25320
Manager: Danny Beckner
(304) 988–2000



Marshall County – Circuit II

Yoho's Slaughterhouse
Rd. 4 366 Stullis Run
Cameron, WV 26033
Manager: Charles Yoho
(304) 845–0353



Mercer County – Circuit 1

Cook's Custom Slaughtering/Processing
Rt. 4 Box 144B
Bluefield, WV 24701
Manager: Eva Johnson
(304) 589–7203



Mineral County – Circuit II

Staggs Meat Market
Rt. 1 Box 76C
Burlington, WV 26710
Manager: Randy B. Staggs
(304) 289–3329



Nicholas County – Circuit I

Canvas Custom Meats
38 Butcher Block Dr.
Nettie, WV 26681
Managers: Charles and Sandra Jackson
(304) 872–0209



Putnam County – Circuit I

Joe's Farm Meat Market
Rt. 4 Box 390
Hurricane, WV 25526
Manager: Joe Leadmon
(304) 562–6291



Randolph County – Circuit II

Buck Valley Processing
Rt. 219/250
Dailey, WV 26259
Manager: E. Scott Campbell
(304) 338–6911



Campbell's Market, Inc.
P. O. Box 280
Beverly, WV 26253
Manager: Charles Campbell
(304) 636–0860



Cole's Meat Processing
Rt. 3 Box 452
Elkins, WV 26241
Manager: William J. Cole
(304) 636–4357



Taylor County – Circuit II

Brian's Custom Meats
Rt. 1 Box 320
Thornton, WV 26440
Manager: Brian Ross
(304) 265–3070



Upshur County – Circuit II

Rock Cave, Inc.
88 Rock Cave Rd.
Rock Cave, WV 26234
Manager: Glen W. Hawkins
(304) 924–5296



Waugh's Custom Cutting
Rt. 9 Box 287
Buckhannon, WV 26201
Managers: Linda and Jerry Waugh
(304) 472–0705



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