Marketing Vegetables in Missouri



Figure 1. Farmers markets provide an easy, convenient way for producers to interact with people interested in fresh, local fruits and vegetables.

arketing is as important to vegetable growers as a high yield. Producing vegetable crops is often relatively easy, but finding a market or optimal combination of markets can be challenging. Low transportation costs and the ability to produce vine-ripe, fresh vegetables give Missouri vegetable growers a competitive advantage in marketing many types of vegetables. Season-extending technology, such as high tunnels, can expand the growing and marketing windows of many Missouri-grown vegetables. Missouri vegetable growers can grow varieties and types of vegetables that cannot be found on the average supermarket shelf.

Many market outlets are available to Missouri vegetable growers. These include community farmers markets, "u-pick" (pick-your-own) sales, on-farm or roadside markets, wholesale produce auctions, restaurants, institutional sales, marketing cooperatives, supermarket sales and community-supported agriculture or subscription farming.

When choosing suitable market outlets, consider factors such as the volume of produce you will be growing; the time you have available for marketing during the growing season; your willingness, time and ability to deal with customers directly; the perishability of your crops; price levels and price stability of the market; and barriers to market entry and expansion.

Revised by **David H. Trinklein**, Horticulture State Specialist, Division of Plant Sciences

Farmers markets

Farmers markets are excellent outlets for directly marketing fresh, local produce to people in the community. Farmers markets support local farmers and promote healthy eating habits while fostering community development. Farmers markets are an excellent way for consumers to connect with food providers. By interacting with growers, consumers learn how food is grown, discover new types of vegetables and even learn how the vegetables can be prepared to preserve their nutritional value. Most consumers shop at farmers markets for freshness, diversity and the opportunity to support local farmers.

Farmers markets are well suited to small, individual lots of mixed produce. Strict grading and packaging of produce are not required, and items grade two or lower can often be sold with ease. Farmers markets are relatively easy markets to access and do not require a significant amount of startup capital. Most farmers markets require vendors to grow their products within a certain distance from the market and will often have rules and regulations governing how the items are sold. A space or booth rental fee may be required to sell at the market. Most farmers markets are centrally located, open-air markets within a community, so advertising by grower-vendors is not necessary. Farmers markets are compatible with off-farm employment because most market days occur on evenings or weekends.

Because farmers markets are well suited to small volumes of produce, they may not be the sole market outlet for a large-scale vegetable grower. Obtaining a premium price for produce at a farmers market may be difficult if there is



Figure 2. Pick-your-own marketing works best with crops for which it is easy to identify harvest maturity.

competition for the same item. Farmers markets are usually seasonal and transient, often opening in April and closing by November. However, covered farmers markets may be available year-round. Farmers markets require a significant amount of time for marketing the produce and may not be an efficient use of time for all growers. Missouri has more than 100 community farmers markets. To find a farmers market in your area, consult the Missouri Farmers Market Association.

U-pick marketing

U-pick, or pick-your-own, marketing is popular for vegetables such as asparagus, green beans, peas, sweet corn, pumpkins and tomatoes (Figure 2). Most growers use u-pick to market vegetables for which pickers can easily recognize harvest maturity. Some growers open fields at the end of the harvest season to u-pick customers to clean up the fields

U-pick marketing of vegetables is not capital-intensive and works well for perishable vegetables. U-pick lowers costs for labor, transportation, packaging and marketing but requires time for supervising customers. In sparsely populated rural areas, u-pick may not be a successful market outlet. And because the grower is inviting the public onto the farm, accident liability insurance may be required.

One of the challenges with u-pick marketing is coordinating harvest frequency with customer volume.

Advertising is essential to maintain a steady flow of customers to the farm. Consideration must be paid to parking and traffic flow on the farm. Pickers must be supervised and shown the proper way to harvest each crop to maximize marketable yield without damaging the plants.

On-farm or roadside markets

Many Missouri vegetable growers sell their produce through on-farm stores or roadside stands (Figures 3 and 4). This method works particularly well in high-traffic areas. Generally, this form of marketing is not capital-intensive and is easy to access. The on-farm store can also be used to sell a variety of products — vegetables, fruits, processed vegetables and crafts — produced on the farm or from neighboring farms.

Many roadside markets are seasonal and benefit from a steady supply of quality produce. Some roadside stands purchase produce from other growers in the region to supplement or diversify their sales volume. Operation of the stand requires labor through the season, and packaging and grading requirements are stricter than at a farmers market. Rules and regulations such as health permits, weights and measures standards, parking, sales taxes, handicap access and sanitation must be considered before starting the market. The market should be clean and neat and have a variety of produce to choose from. Roadside market prices often fluctuate during the season, based on local supply.

Grower organizations

Missouri Farmers Market Association

710 S. Hickory St. Mt. Vernon, MO 65712 417-708-1909

Missouri Farmers Union

15593 Road 245 Langdon MO 64446 573-659-4787 or 660-787-0222

Missouri Organic Association 20547 Creek Road

20547 Creek Road Bunceton, MO 65237 660-427-5555 or 573-619-9139

Missouri Vegetable Growers Association

100 E. Newton St., 4th Floor Versailles, MO 65084 573-378-5358

For farmers market locations, visit http://agebb.missouri.edu/fmktdir.

Wholesale produce auctions

Missouri has four wholesale produce auctions. A produce auction is a marketing cooperative organized as a limited liability corporation or general partnership. Each auction has shareholders, usually growers, who provide startup capital for the auction. Produce auctions allow growermembers to wholesale market large volumes of produce in a centralized facility to a diverse group of buyers. Grower-members are expected to grade and package their produce in standardized containers before the auction. Each auction has specific guidelines for grading and packaging produce items. The auction often sells containers or boxes to grower-members. Growers transport the



Figure 3. Roadside stands and on-farm stores are most successful in hightraffic areas.

produce to the auction building the morning of the auction, and the auction commences by midmorning. Growers are responsible for boxing, unloading, stacking and labeling their produce items. The auction is conducted in an openair shed with wide floor space for loading and unloading produce. The produce can be auctioned in lots positioned on carts on the floor or in a drive-through for bulk wagons or trailers.

Each lot of produce has a card that identifies the type, quantity, grade and, sometimes, variety of vegetable or fruit in the lot. This card is the consignment sheet and is read aloud by the manager or auctioneer before auctioning the lot. Each tag has a number that identifies the grower. Each lot is systematically auctioned to the highest bidder. The auction is designed for wholesale marketing, but small lots of produce are sold at retail prices in a separate section of the auction. Since most buyers want larger volumes of produce, most auctions sell small lots — less than three boxes of any item — last.

Wholesale produce auctions bring buyers and sellers together for a short period of time, several times each week. Most buyers purchase for small supermarkets, roadside stands or restaurants. The auction does not perform any postharvest handling or store any produce, because every lot is sold regardless of price at the day of the auction. Most auctions have a "no no-sale" policy. However, some auctions choose to set a price floor or minimum acceptable price for each lot of produce. A commission of 9 to 12 percent is deducted from the sale price of each lot to fund operating costs of the auction and salaries of the market manager, clerks and other workers in the auction.

Produce auctions are an efficient market outlet for growers who don't have time to market their produce. Both top- and low-grade produce can be sold at the auction. Transaction costs are lowered because produce is transported to a central facility for market. Most produce auctions will only sell produce grown within a 100-mile radius of the auction facility. Produce grown outside the 100-mile radius is considered "shipped or imported produce" and is usually auctioned after local produce.

Wholesale produce auctions serving Missouri growers

Barton County Produce Auction LLC

669-A NW 30th Lane Lamar, MO 64759 417-681-0123

C-Highway Produce Auction

Short State Highway P Seymour, M0 65746 417-859-3509

Central Missouri Produce Auction Inc.

37808 Highway E Fortuna, M0 65034 660-337-6227

Clark Produce Auction LLC

1966 Highway Y Clark, MO 65243 660-264-4555

Four County Produce Auction

1162 NE 1400 Road Windsor, MO 65360 660-684-6844

Highway 60 Produce Auction LLC

Seymour, MO 65746 417-935-2791

Leadmine Produce Auction

839 State Road T Tunas, M0 65764 417-993-0086

North Missouri Produce Auction LLC

32633 State Highway F Jamesport, M0 64648 660-684-6844

For more information about wholesale produce auctions, visit http://agebb.missouri.edu/hort/auction.

Growers who wish to sell produce grown more than 100 miles away should contact the market manager before bringing produce to the auction. During the peak growing season, most produce auctions have two or three sales per week. Often, special auction events are conducted for items such as flowers, bedding plants, small animals, hay or straw, and crafts. The auction system is well suited to relatively nonperishable vegetables and fruits. Given the nature of the auction system, prices can vary, but an auction with low prices is often followed by auctions with high prices. Average seasonal prices for produce at most auctions are usually above wholesale final market prices or prices received from supermarket contracts. Growers should use the auction system throughout the growing season to get the most out of the changing prices.

Marketing cooperatives

Although wholesale produce auctions are marketing cooperatives, other forms of marketing cooperatives can be established in Missouri. Growers in a region who produce similar types of vegetables or use similar growing practices, such as organic, may consider coming together to form a cooperative. A cooperative is a business organization owned by grower-members. Cooperative ventures can be organized as partnerships, corporations, cooperatives or limited liability companies. In Kansas, for instance, eight growers formed a community-supported farm that offered a wide variety of crops and served a larger number of members than could have been done by individual producers. In northeast Iowa, a small number of growers cooperatively own a packing and grading facility and a delivery truck that serves nursing homes and other institutional customers.

Cooperative marketing can offer many benefits to growers. These include specializing in vegetable crops best suited to their soil type, labor availability and management skills; marketing a larger volume of production, which reduces the marketing cost per product and allows access to new markets, such as wholesale distributors; complementing their own skills and abilities with other necessary production, grading and marketing skills; and spreading investment costs in equipment and facilities among a larger number of producers. Most wholesale market outlets desire a consistent quality and quantity of produce. The cooperative structure allows growers to sequence their planting to maintain a steady supply of produce for each market. Using a cooperative, growers are able to label and differentiate their produce. The cooperative can help with harvesting, processing, cooling or freezing, packaging, labeling and transporting produce to market. Growers market a specific quantity of produce through the cooperative relative to how much they have invested. The cooperative has a market manager who coordinates production and seeks new markets for the cooperative. With a diligent market manager and a larger volume of produce, each grower-member spends less time marketing relative to producing the crop. The cooperative can purchase input items, such as fertilizer or seed, in bulk quantities, resulting in significantly lower prices. Labor and equipment for planting and harvesting can be pooled and shared among members of the cooperative.

Depending on its size, a cooperative can have significant capital requirements, such as packing equipment, freezing units and coolers. For the cooperative to succeed, growers must work together and put aside self-interest. A marketing agreement among members that specifies the type and volume of vegetables sold by each member must be implemented. Some cooperatives do not take possession of members' produce but serve only to connect members with buyers. Quality control is essential, and the cooperative must enforce grading and packing requirements. Growers should use the cooperative as the dominant marketing outlet for their vegetables. Growers considering any form

of cooperative entity should read *The Farmer's Legal Guide* to *Producer Marketing Associations* by Doug O'Brien and co-authors (see the *Resources* section) and should seek expert legal assistance.

Community-supported agriculture

Community-supported agriculture farms (CSAs) appeared in Missouri in the mid-1990s after being imported from Europe and Japan to the Northeast in the mid-1980s. CSAs are community farms where consumers interested in healthy, safe food enter into an economic partnership with growers seeking stable markets. Consumers pay in advance for a whole season of produce with a membership fee ranging from \$300 to \$600, depending on size of share. In return, members receive a supply of six or more varieties of vegetables on a weekly basis from roughly mid-May until October.

CSAs have traditionally had core groups of consumers who take on some tasks of planning, organizing and other labor — weeding, hoeing, harvesting, marketing, distribution, coordination — in addition to the membership fee. The benefits to growers include sharing the harvest risk with members who join knowing they may receive reduced harvests or variety depending on weather conditions or other problems. Traditional CSAs excel at creating loyal customers and friends, resulting in tremendous community partnerships.

A more common form of CSA in Missouri is subscription farming, which normally eliminates the work requirement for members. These CSAs may charge an advance fee for the entire season, or growers may opt to have a nominal membership fee with weekly or monthly invoices for the market basket provided.

In either form, the greatest benefit of CSA is the financing available from upfront membership fees, which enables the grower to buy seeds, supplies and labor.

CSAs require excellent management skills. Planning is essential to provide the expected variety and quantity of crops through a 20- to 24-week season. Growing such





Figure 4. Roadside stands and on-farm stores should be clean and neat and offer a variety of produce.

Market outlet	Farmers market	Roadside market	U-pick market	Produce auction	Market cooperative	Direct store sales	CSA	Institution sales	Restaurant sales
Suitable for large volumes of produce per grower?	No	No	Yes	Yes	Yes	Yes	No	Yes	No
Marketing time required by individual grower	High	Medium	High	Low	Low	Medium	Medium- High	Low	Medium– High
Degree of grower contact with consumers	High	High	High	Low	Low	Low	High	Low	Low
Suitable for very perishable vegetables?	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Price stability	Medium	Medium	High	Low– Medium	High	High	High	High	Medium– High

a wide variety of crops — usually 60 or more different vegetables, herbs, fruits or other crops — throughout the growing season requires knowledge of different growing techniques and carefully planned planting and harvesting, in addition to extra labor. By charging weekly or monthly fees based on the market value of vegetables provided, subscription CSAs exert less pressure on growers to supply a good variety every week than traditional CSAs. Growers considering developing a CSA should have several years of vegetable farming experience and good planning skills to manage the variety of crops, planting and harvesting schedules required to produce vegetables for 20 to 24 weeks. Growers considering a traditional CSA arrangement should also be adept at managing members' labor to make the most of the member work requirement.

Some growers form cooperative CSAs with other vegetable growers or producers of eggs, meat and honey. Such arrangements allow producers to specialize in different crops that are better suited to their land assets and management skills. Cooperative partnerships can take a great deal of time to plan and manage, but much of this can be done during the offseason. CSAs in general have medium to high marketing costs but can help stabilize farm incomes, minimize risk from specific crop failures and provide outlets for extra produce. CSAs are almost always used in conjunction with wholesale outlets or farmers markets to diversify funding sources.

Restaurant and institutional sales

Selling to chefs and institutional food services can help growers diversify their markets. The most likely market targets are independently owned and operated restaurants that frequently change menus. Many are upscale restaurants that depend on high-quality ingredients to serve a sophisticated and discerning clientele. Such restaurants tend to use a limited amount of product and have little storage space on site, which means they need multiple deliveries each week. Lower-priced or high-volume restaurants can also be potential clients, particularly for highly perishable items that suffer from long shipping

distances, such as tomatoes or strawberries. With today's food trends, many chefs feel market pressure to source locally produced, high-quality products.

Benefits of marketing to chefs include a higher wholesale price if the product is delivered to the restaurant; a larger sales volume than retail sales, resulting in lower marketing costs; a market for unique and highly perishable products; and exposure for the farm's product to a wider audience, particularly if the chef uses the farm name and product in a marketing strategy.

An intangible benefit of selling to chefs is the invaluable feedback that growers get from food professionals, who may recommend earlier harvesting or different postharvest handling or packaging. To sell to chefs, growers need to have good postharvest handling and sorting, grading and packaging capacity. Growers will also need to be able to provide a standard business invoice that can be entered into the restaurant's accounting system and, in most cases, cannot expect payment upon delivery. (The exception is if growers can receive credit card payments. Setting up such a system can have multiple advantages in working with largevolume customers.) Growers should also consider that chefs have a schedule almost opposite their own — chefs finish cleanup from dinner service after midnight — which means farmers need to be able to accept orders by email, fax or, as a last resort, an answering machine. Growers should also be able to provide advance product price lists and availability on a weekly basis.

A great way to break into restaurant sales is to offer chefs samples of products to find out if your products are high enough quality for them to use. Chefs expect products they order to be delivered as promised and need to know about crop shortages far enough in advance to order replacement products from other distributors. Never deliver to a chef during lunch or dinner service (11 a.m. to 2 p.m. and 5 to 10 p.m., respectively) or you are likely to lose the sale because of the inconvenience to the chef.

Another potential marketing outlet is institutional food services, such as campus dining, elementary and secondary school cafeterias, hospitals and nursing homes. Many of the benefits and rules about selling to chefs also apply here.

Note that most food services will require product liability insurance, standard packaging and grading, and readable invoices. Many food services use a purchase order system that can require a grower to be approved as a vendor before an order can be placed, unless the grower has a credit card system in place. Food services generally pay the standard wholesale price but are often interested in contracting for product throughout a season, which can balance out price fluctuations from week to week. In addition, to protect themselves from legal claims, many food services require that suppliers have a hazard analysis and critical control points (HACCP) safety audit system in place.

Direct store sales

Regional wholesale marketing of vegetables to chain or independent supermarkets is a viable marketing outlet for both large- and small-scale vegetable producers in Missouri. Many consumers request that their local supermarkets buy locally grown produce. To evaluate this market outlet, identify all food retailers in your area, and visit or call each store to determine if they are interested in purchasing locally grown produce.

Direct marketing to supermarkets eliminates the need for a broker and allows growers to label their produce. Large-scale producers can market large lots of produce by selling wholesale to a supermarket. Small-scale producers can fulfill the demand for niche produce items that supermarkets cannot purchase through traditional wholesale channels. Many upscale or specialty supermarkets may be looking for premium, farm-fresh produce items, such as organic, ethnic, heirloom or baby vegetables.

Harvest scheduling is crucial for marketing to supermarkets, since produce cannot be delivered to market every day. Supermarkets require a consistent supply and quality of produce. The labor or equipment to harvest produce on a timely basis must be available, and coolers may be needed to preserve postharvest quality and for short-term storage. Most supermarkets require product liability insurance, and some require growers to attend food safety training, to have a third-party auditor and to have specific requirements for harvesting, packaging and handling produce. For example, most supermarkets require the items to fit on a 40-by-48-inch pallet for ease of handling in the warehouse or store.

Some supermarkets will accept locally grown produce at the local store, and others may require the produce to be delivered to a central warehouse facility. Contact the local produce manager from the supermarket you are interested in selling to, and establish a relationship with the buyers. Buyers may wish to inspect the farm and discuss production practices used to grow the crop. Prices for produce are negotiated with each buyer, but price levels do not fluctuate significantly.

Food Safety Modernization Act (FSMA)

The FSMA was signed into law in 2011 and establishes minimum standards for food safety. It was prompted by the report of many food-borne illnesses prior to that date and represents the first major revision of food safety laws since 1938. The goal of the FSMA is to ensure a safe supply of food by shifting government emphasis from reacting to food safety incidences to preventing them. As food suppliers, vegetable growers with annual sales of more than \$25,000 are subject to the terms of the FSMA and must become familiar with it. Visit https://www.fda.gov/Food/GuidanceRegulation/FSMA for more information.

Good Agriculture Practices (GAP)

There are several types of GAP certification; all are aimed at ensuring that food producers adhere to practices consistent with the production of safe food. GAP programs usually are buyer-imposed and set standards for growers to follow. Various produce marketing outlets may require GAP certification of some sort. The FSMA is altogether separate from GAP certification and is not a substitute. Check with your marketing outlet to see if their vendors must be GAP certified. If so, your local extension specialist can provide additional information on obtaining GAP certification.

Pricing vegetables

Setting price is a critical component of successful marketing. Vegetable growers have a greater level of control than most other growers over marketable yields, input costs and price. The closer a grower is to the consumer, the more control over price the grower has. Buyers perceive price to represent value of the product. Underpricing, or pricing too low, gives the perception the product is inferior, and setting the price too high often drives customers away. Many growers make the mistake of setting the price too low at the beginning of the marketing season when competition is low and demand is high and then find it difficult to increase price later in the season. Before setting price, gauge the level of competition and the consumer demand for your product. For example, organic produce may have a stronger demand in urban areas, so prices can be set at a higher level. Also, early-season produce, such as tomatoes, has high demand with little competition in most markets, resulting in a higher price range.

There are several techniques for setting price. The most direct method is relative pricing. Relative pricing involves acquiring price information from competitors and setting your price relative to that level. Though a direct, easy way to set price, this may not be the most profitable method because individual growers have different production costs and quality. Local produce is fresh and often vine-ripe, and should therefore receive a higher price than imported produce at most supermarkets. So, the price of imported vegetables can often be used as the base price.

Cost-oriented pricing is the best method for setting price for vegetables. With cost-oriented pricing, the grower needs to know costs of production. When growers know both the fixed and variable costs of producing their vegetables, they can determine the break-even price. Fixed costs, commonly called overhead costs, are costs that do not change regardless of the level of production. Land rent, property taxes and depreciation are common fixed costs. Variable costs are input costs that vary with each production season and type of vegetable. Seed, fertilizer, boxes, fuel and labor are examples of variable costs. Variable and fixed costs added together are the total costs of production and can be averaged over the marketable yield to get an average total cost per pound, box or bushel. Break-even price is the price for a produce item at a certain level of yield where total costs are covered. This is the price floor for a grower's vegetables. Selling below this price level for a significant period of time will lower net income. However, once this price level is determined, most growers establish a price margin above this level to secure a profit.

Because most supermarkets, institutions and restaurants contract with growers, these market outlets maintain a relatively stable price through the marketing season. Wholesale produce auctions, farmers markets and roadside markets experience variable pricing based on local supply and demand.

Resources

- American Vegetable Grower. Toll-free: 800-572-7740. http://growingproduce.com
- Building a Sustainable Business: A Guide to Developing a Business Plan for Farms and Rural Businesses. 2010. Minnesota Institute for Sustainable Agriculture. http://www.misa.umn.edu/Publications/ BuildingaSustainableBusiness
- Community Supported Agriculture. Alternative Farming Systems Information Center, National Agricultural Library. http://afsic.nal.usda.gov/community-supported-agriculture-3
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- Farmers' Markets: Rules, Regulations and Opportunities. 2002. Hamilton, Neil D. National Center for Agricultural Law Research and Information Center. http://nationalaglawcenter.org/wp-content/uploads/assets/articles/hamilton_farmersmarkets.pdf

- The Farmer's Legal Guide to Producer Marketing Associations. 2005. O'Brien, D.; Hamilton, N.D.; and Luedeman, R. National Agricultural Law Center. http://nationalaglawcenter.org/wp-content/uploads/assets/articles/obrien_producermarketing_book.pdf
- Growing for Market. A newsletter and website for produce growers. Toll-free: 800-307-8949. *http://growingformarket.com*
- LocalHarvest. This website is heavily marketed to consumers and is a great place to list your farm for free. Consumers moving to new areas can find u-pick, farmers markets and CSAs through this site. http://localharvest.org
- Food Circles Networking Project is an MU Extension program that connects farmers and consumers around local food. The project offers guides to sourcing local foods and information on creating community food systems. http://foodcircles.missouri.edu
- The New Farmers' Market: Farm-Fresh Ideas for Producers, Managers and Communities. 2001. Corum, V., Rosenzweig, M. and Gibson, E. New World Publishing, Auburn, Calif.
- North American Farmers' Direct Marketing Association. http://farmersinspired.com
- Marketing Options for Commercial Vegetable Growers.
 University of Kentucky Cooperative Extension Service,
 publication ID-134. http://www.ca.uky.edu/agc/pubs/id/
 id134/id134.htm
- Missouri Vegetable and Fruit Growers Database. http://agebb.missouri.edu/hortgrow
- Missouri Produce Auction Report. http://agebb.missouri.edu/hort/auction
- National Cooperative Business Association. Information on forming a cooperative business. http://ncba.coop
- Sell What You Sow: The Grower's Guide to Successful Produce Marketing. 1994. Gibson, E. New World Publishing, Auburn, Calif.
- The Legal Guide for Direct Farm Marketing. 1999. Hamilton, N.D. Drake University Agricultural Law Center, Des Moines, Iowa.
- The Packer. A newspaper and website for commercial produce growers. Contains wholesale terminal market price information. Toll-free: 844-793-5875. http://thepacker.com
- Vegetable Growers News. Phone: 616-887-9008. http://vegetablegrowersnews.com

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