

Adding Value to Plant Production — A Summary of Kentucky Products

Introduction

“Value-added agriculture” is a broad term encompassing many practices that increase the value of farm products. Value-added agriculture has come to describe practices as varied as agritourism activities that provide consumers value from visiting a farm to large-scale processing endeavors that create mass-market retail food products from commodity crops.

While a complete list of value-added crop products is impractical due to the number of these products marketed from Kentucky crops, producers considering new value-added enterprises may be helped by a summary of products with similar marketing characteristics. The major types of value-added products derived from Kentucky-grown crops listed here are grouped by marketing characteristics. This profile also includes brief summaries of several Kentucky value-added producer success stories.

This fact sheet is not intended to be a comprehensive listing of Kentucky products. Products and producers cited in the text and photos are provided only as examples and no endorsement is implied. Additionally, no criticism is intended for products not named.

**Crop Diversification
& Biofuel Research
Education Center**



General Differences in Marketing Food & Non-food Crops

Producers adding value to crops may be subject to a variety of rules and regulations for the final product marketed. While these regulations can vary according to the specific crop marketed, a major determining factor is whether the final product will be intended for a food or a non-food purpose. Generally speaking, products not intended for human consumption are subject to less stringent regulations and market rules. One notable exception to this general principle would be crops used or marketed for medicinal purposes, such as some non-timber forest products. An overview of Kentucky rules and regulations for producers marketing food products may be found in the related value-added fact sheet, “An Introduction to Policies and Regulations for Kentucky Producers.”

Non-Food Crops

Marketing advantages for value-added products for non-food purposes may include: less perishable products, ease of handling bulk products,

and less regulatory compliance to the producer. Marketing challenges for these products can include proximity to market, identification of core consumers, and market development.

Field Crops (Grains, Oilseeds, Hay/Straw, Ornamentals)

Value-added possibilities for bulk grains and oilseeds often include smaller market niches and/or identity-preserved grains. Such opportunities often pay producers a premium for adhering to certain production practices and contract production in advance. Food-grade corn production (like white and blue corn), dry beans, and specialty soybeans are included in this category. Opportunities for these crops may be found in individual crop profiles in the Grain, Fiber and Oilseed Crops section of the CDBREC Web site.

Another possible market channel for grains and oilseeds, as well as some fiber crops, can be production for the biofuel or biomass market. In recent decades, biofuels have utilized more corn and soybean production and resulted in sustained quantities demanded for these crops. Proximity to an ethanol or biodiesel processing facility will be critical for producers considering these markets.

Other possibilities for adding value to crops for biomass production, including fiber crops like switchgrass, appear more dependent on developing economically feasible technologies in the future. Producer involvement from the early stages of these efforts can help define the supply chain and may create additional opportunities for crops that can be produced on more marginal land.

Some field crops can be marketed for their aesthetic value. The most popular example is probably corn shocks and straw bales used in fall decorations. Some producers have added further value to fall ornamentals by offering delivery and/or setup services to their customers. While these activities may increase a producer's potential liability and exposure to regulations, the added profitability often offsets the extra insurance and/or regulatory costs.

Another way of adding value to feed crops is to market them for a less common use. Squirrel corn is a popular offering at many farmers markets. The value received is frequently many times

greater than the commodity value of the corn. High-quality forages may be marketed to small landowners or hobby livestock farmers. Cereal straw can be sold to homeowners for landscaping or pet bedding. All of these markets can offer premium prices, but they are also dependent on developing good relationships with potential customers.

Fall ornamental production for direct markets, including pumpkins, gourds and ornamental corn, has increased in Kentucky during the last

two decades. Data from planting intention surveys funded by CDBREC, as well as data reported in the USDA Census of Agriculture, indicate that pumpkin acreage has remained steady

or declined slightly since 2000. However, this reflects a decrease in wholesale pumpkin production and an increase in the number of acres sold directly to consumers. In addition,



ornamental corn and gourd production increased to about 300 acres from 2000 to 2010. Much of this production is direct-marketed at local outlets. Some producers have found more lucrative income in direct delivery and setup of fall displays for homeowners.

Value-Added Success Story: Direct-Marketed Fall Ornamentals

Even simple direct marketing can add value beyond wholesale prices for fall ornamental production. Bill Holleran started selling pumpkins grown on his farm outside Lexington in 2000. He grows some 30 varieties of pumpkins, in addition to hard squash and gourds, on eight acres. Holleran says offering a large selection of pumpkin colors and types has helped build a steady customer base. Employed off the farm, he direct markets his crop during the week by parking a trailer filled with pumpkins priced at \$3 by his farm's entrance. Customers pay on the honor system, saving him any labor costs for selling on weekdays. He then staffs his farm stand on the weekends and offers a greater selection of pumpkins, most selling in the \$3 to \$10 range. Holleran says that mid-sized pumpkins offered in a variety of colors remain popular with his customers.



Nursery/Greenhouse, Floral/Craft & Cut Herbs

The nursery/greenhouse and floral markets are diverse and highly competitive, but they offer some possibilities for Kentucky producers wishing to add value to products. Advantages to these markets include fewer regulations than for food products and widespread consumer appeal. Disadvantages can include high establishment/production costs, as well as competition from retailers and wholesale producers.



Producers wishing to add value to ornamental crops could identify specific market niches or specialty markets to pursue. Producing a product from these crops, such as custom floral arrangements or craft items (possibly including candles, soap, and potpourri) can enable smaller growers to receive prices for crops that may result in favorable returns to land, labor, and management.

Some food crops may be marketed for non-food purposes. Herbs may be used for craft products like candles, soap, and potpourri. Additionally, some crops, like catnip, may be marketable into the pet market. While such products are typically home-based or hobby enterprises, savvy marketing can result in significant supplemental income from craft items for some farm producers.

Non-Timber Forest Products & Tree Nuts

Kentucky's native forests may offer farmers and landowners potential for developing value-added enterprises. Small-scale shiitake mushroom production, collection of forest crops for ornamentals, and Christmas tree production are all examples of successful non-timber forest enterprises in Kentucky. Some legal restrictions may apply specifically to non-timber forest products, especially those harvested for medicinal purposes.





**Value-Added Success Story:
Kight's Pecan Orchard**

In-shell marketing of tree nuts directly to consumers at retail prices is one way producers can use direct marketing to add value to non-timber forest products. Pecans, hickory nuts, and black walnuts are all gathered and sold by some Kentucky landowners. Depending on market access, these tree nuts may be sold at prices well below retail. Producers selling in-shell nuts directly to consumers could capture more value from these crops and from land that may not be ideally suited to other food crop production.

Kentucky's only commercial nut orchard, Kight's Pecan Orchard in Kevil, is an example of one farm entrepreneur who realized added value from tree nuts through direct sales to consumers. The first trees were planted in 1985 and the orchard eventually expanded to 80 acres of pecan trees. Selling the pecans in-shell, directly to consumers, allowed the enterprise to market a food crop under minimal regulation. In 2010, in-shell pecan prices experienced a substantial rise due to increased global demand for U.S. pecans. This has positive effects on both wild-harvested and cultivated pecans.

The story of the pecan orchard development is informative for those interested in developing new or value-added crop enterprises. Refer to "Profiles in Agricultural Entrepreneurship: Kight Pecan Orchard, Kevil, KY" for a complete case study.

Food Crops

Marketing value-added food products can result in a breadth of additional regulatory, production, and marketing concerns. Generally speaking, lower levels of processing result in less applicable regulation for value-added food producers. There are exceptions to this principle, such as crop products used in the process of curing meats; all meat products are separately regulated under USDA guidelines.

This section will address value-added food crops, moving from minimally processed to more extensive processing levels.

Minimally Processed Fruits & Vegetables

Good opportunities exist for adding value to some fruits and vegetables through minimal processing, especially for produce sold directly to consumers. Examples of such products may include sweet corn husked upon sale, cut herbs, dried peppers, and braided garlic. Popcorn vendors should check for guidelines from their local health department as popcorn may also be subject to less stringent regulations than other prepared foods.



A good source of information on the differences in the various processing types for Kentucky producers, particularly those selling at farmers markets, is the Kentucky Farmers Market Manual.

Certified Organic Crops

Certified organic production is another way of adding value to food crops without processing. The USDA organic certification process provides the right for producers complying with defined

standards to market their crops as “certified organic.” This label creates an added value at both wholesale and retail levels.



**Value-Added Success Story:
Casey Organics**

Casey Organics is an association of four to six certified organic growers from Casey County who sell organic vegetables to the Lexington market. Cooperation began between two farms in 2000 when they combined to deliver about \$75 of produce per week to one client. Those farms, already using organic practices, realized the potential value in becoming certified organic and completed the inspection process while helping other farms begin the process.

In 2010, sales of certified organic produce from Casey Organics accounted for a “significant” portion of sales for all the farmer-members. “Organic certification always differentiates our product,” says one farmer, “and it helps meet our customer’s requirements.”

**Processed Fruits & Vegetables
(Fresh Cut and Dehydrated)**

The fresh processing of fruits and vegetables is one of the most significant market trends in U.S. produce consumption during the



last 30 years. Due to concerns for maintaining the safety of fresh cut products, food safety regulations can apply to products such as:

- Snapped beans
- Shelled peas
- Cut melons
- Lettuce mix
- Dehydrated products (blended herbs, mushrooms)

Producers should exercise care to make sure that all safety concerns and regulations are met any time a crop is being altered. Be sure to refer to the value-added profile entitled “An Introduction to Policies and Regulations for Kentucky Producers” on the CDBREC Web site.



While lettuce is a popular fresh cut item, producers who are unable to meet the requirements for processing lettuce mix need not give up on exploring the market potential for fresh head lettuces. Greenhouse or protected production of desirable head and leaf lettuces can be direct-marketed to consumers through channels such as farmers market or community supported agriculture (CSA) subscriptions. This is an example of using a specific market channel (like a farmers market) to “add value” to a particular crop.

There are also stringent regulations about the sale and marketing of sprouts; no sprouts may be marketed from non-commercial facilities.

Prepared & Processed Foods

An endless number of value-added products could potentially be made from Kentucky crops. Advantages for marketing processed foods include the possibility of producers creating a brand for their farm’s products and capturing more of the



final food dollar. Challenges include navigating food business and regulatory channels. Processed value-added items marketed by Kentucky farm producers include:

Prepared Foods

- Jams, jellies & other preserves
- Baked goods
- Salsa
- Relishes
- Sauces
- Spreads
- Pickles

Syrups, Juices, and Honey

- Juices (cider, apple & grape juices)
- Wines
- Maple syrup
- Sorghum syrup
- Fruit syrups
- Honey

Flavored Foods

- Dairy (flavored products, ice cream, cheese)
- Bread (herbs, etc.)

Legislation specific to Kentucky, along with the addition of commercial kitchens available for use and rent at several county Extension offices, has opened the door for Kentucky crop growers to add value by processing many of their crops. Producers who identify necessary regulations upfront and enter a value-added enterprise with a defined business and marketing plan will be more prepared to address the unexpected challenges that always arise when starting a business.



In some cases, marketing a specific product may create particular conditions and/or regulatory concerns for a producer to address. Successful value-added producers in Kentucky have found that working closely with local and state health officials from the beginning is one proven principle for the road to success.

**Value-Added Success Story:
Evans Farm Orchard Fried Apple Pies**

The 175-acre Evans Farm Orchard and Cider Mill near Georgetown, Kentucky, transitioned from focusing on tobacco and beef production to starting an apple orchard in 2001. In an effort to add more value to apple production, the Evans family established cider processing and started making fried apple pies under provisions for home-based processing. As the retail operation grew, the need for a commercial kitchen became apparent—mainly to help sell the 12,000 fried apple pies the Evanses were making by 2005! That volume has since nearly doubled.

Agritourism

Agritourism and agritainment are two ways that more Kentucky producers are choosing to add value to crops. By inviting the consumer onto the place where a crop is grown, producers can add the value of a consumer experience to the price charged for a crop. This can create a significant price premium; it may even create cost savings such as those experienced when customers harvest their own crops in a Pick-Your-Own setting. However, agritourism activities require producers to assume responsibilities inherent to inviting the public onto their farm and develop a plan for managing adequate liabilities. More information about this

way of adding value to crops grown in Kentucky may be found in the CDBREC crop profile on agritourism.

**Value-Added Success Story:
Evans Farm as an Agritourism Enterprise**

Evans Farm Orchard and Cider Mill tells more than one value-added success story. As indicated above, the original idea for diversifying their cattle and tobacco farm consisted of establishing an apple orchard, followed by apple cider and fried apple pie production. From there, a full-scale agritourism enterprise developed and now consists of 30 acres of fruit and vegetable production, a retail farm market, on-farm restaurant, a petting zoo, play area, and various seasonal attractions. The Evanses credit diversification and their value-added enterprises as maintaining the family farm and letting a younger generation return to the farm. More of their story can be found on their Web site.

Selected Resources

Web sites

- Food Systems Innovation Center (University of Kentucky)
<http://www.uky.edu/fsic/>
- Agricultural Marketing Resource Center
<http://www.agmrc.org>
- ATTRA / National Sustainable Agriculture Information Service
<http://www.attra.org>
- Center for Profitable Agriculture (Tennessee)
<http://cpa.utk.edu>

Online publications

- Adding Value to Plant Production: An Introduction to Policies and Regulations for Kentucky Producers (University of Kentucky, 2011)
<http://www.uky.edu/ag/cdbrec/varegs.pdf>
- Agritourism (University of Kentucky, 2008)
<http://www.uky.edu/Ag/cdbrec/introsheets/agritourism.pdf>
- Kentucky Farmers Market Manual (Kentucky Department of Agriculture)
<http://www.kyagr.com/marketing/farmmarket/index.htm>
- Selected Resources for Developing Value-added Products in Kentucky (University of Kentucky, 2010)
<http://www.uky.edu/Ag/cdbrec/varesources.pdf>
- Adding Value Through Sustainable Agriculture Entrepreneurship: Overview and Resources (ATTRA, 2003)
<http://attra.ncat.org/attra-pub/summaries/value-addedResource.html>
- Adding Value to Farm Products: An Overview (ATTRA, 2006)
<http://www.attra.org/attra-pub/valueovr.html>
- Marketing for the Value-Added Agricultural Enterprise (University of Tennessee, 2007)
<http://utextension.tennessee.edu/publications/Documents/PB1699.pdf>

Success stories

- Evans Orchard and Cider Mill
<http://www.evansorchard.com>
- Profiles in Agricultural Entrepreneurship: Kight Pecan Orchard, Kevil, KY (University of Kentucky, 2005)
<http://www.uky.edu/Ag/cdbrec/cases/kightspecans.pdf>

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Photos by Matt Barton (pumpkins, pgs. 1 & 2), Cheryl Kaiser (corn shocks, pg. 2), Matt Ernst (soaps & catnip, pg. 3; organics, pg. 5), Christy Cassady (soup mix & fresh cut fruit, pg. 5; sorghum, pg. 6), and John Strang (pie, pg. 6), University of Kentucky; Veronique Pagnier (garlic, pg. 4) and George Chernilevsky (mushrooms, pg. 3), Wikimedia; and Brad Haire (pecans, pg. 4), University of Georgia, Bugwood.org.
