UK COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF KENTUCKY — COLLEGE OF AGRICULTURE

Adding Value to Plant Production — An Overview

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. This fact sheet profiles value-added agriculture and describes key terms and considerations for crop producers in Kentucky interested in adding value to their crops. A list of resources is included at the end of this profile.

Defining Value-Added

An attendee at one large value-added agriculture event wryly noted that "value-added" might mean something slightly different to nearly every person in attendance. The breadth of crop production — from grains and oilseeds to fruits and vegetables; from nursery and landscape crops to herbs and wildcrafting — can also create difficulty in defining "value-added crop production." Starting with the United States Department of Agriculture (USDA) definition, then noting how the concept of a "value-chain" operates within a farm's business can help us arrive at a sound understanding of value-added crop production.

Crop Diversification & Biofuel Research Education Center

USDA Definition of Value-Added Products

According to the USDA definition, value-added agricultural products are characterized by one or more of the following criteria:[1]

- A change in the physical state or form of the product
- The production of a product in a manner that enhances its value, as demonstrated through a business plan
- The physical segregation of a commodity or product in a manner that results in the enhancement of the value of that commodity

The first definition, A CHANGE IN THE PHYSICAL STATE OF THE PRODUCT, is perhaps the most commonly perceived understanding of value-added agriculture. Making salsa from fresh vegetables, grinding corn into cornmeal, processing grapes into wine, and drying and packaging fresh herbs into a meat rub are just a few examples of how crop producers can change the physical state of their product. The goal of this transformation

is to receive a price that results in greater returns to the producer than would be received from selling a fresh/raw or commodity crop.

The second aspect of this definition is THE PRODUCTION OF A PRODUCT IN A MANNER THAT ENHANCES ITS VALUE, AS DEMONSTRATED THROUGH A BUSINESS PLAN. There are two important parts of this statement: production and business planning. Value-added crop production necessarily combines the business and marketing of crops with their production.

Organic production is often cited as an example of this aspect of value-added production. By raising crops according to an organic production system, growers may be able to enhance the value of their crops. However, organic production is by no means the only way producers can add value to their crops through a certain production manner. Specialty grains and oilseeds grown using specified production practices, varieties, or products preferred by a contractor or consumer illustrate how a production method could add value. "Green" or "sustainable" production practices that minimize pesticide use and/or focus on marketing native or non-hybrid ("heirloom") plants is another example of how crop producers might leverage distinct production methods to add value to plant production.

Finally, value-added crops may be those that have been PHYSICALLY SEGREGATED in a manner that results in enhanced value. Identity-preserved grains and oilseeds are good examples of this aspect of value-added production. Organic produce that has been field- or farm-packed following organic standards is yet another example. The producer is able to create value for crops through the very manner in which the crops are handled.

Understanding the Value Chain

Another way of defining value-added crop production is to simply state that adding value is the "process of changing or transforming a product from its original state to a more valuable state."[2] The term used to describe the movement of crops or other products from an original to a more valuable state is "value chain."

A value chain is a way of thinking about how a crop begins a value transformation after it leaves its place of production. There are four major ways that value is added to crops along the value chain:

- Product transformation
- Distribution
- Storage
- Added service

PRODUCT TRANSFORMATION describes the process of taking a crop from its raw or commodity state and transforming it into a different form. This could be as simple as tying three ornamental corn ears together for sale at a farmers market. Product transformation could also be as complex as harvesting a specific variety of wheat that is ground into flour, used to make fresh pasta, and packaged for delivery to retail stores. Packaging and/or combining a crop with other ingredients to produce a final product are common stops along this part of the value chain.

DISTRIBUTION within the value chain involves any transportation of crops to a more convenient buying location. Nursery plant sales via the Internet are one example of adding value to crop production via distribution. Transporting identity-preserved or organic grain using specific standards to a certain delivery point is another example of how distribution can add value to a

crop. Producer delivery of fresh herbs to a local restaurant is yet another example. Adding value by specialized delivery methods may be one way for producers to offset, and even surpass, the cost of transporting crops to market.

STORAGE has long been utilized by grain and oilseed growers to warehouse crops in anticipation of future price increases or while awaiting contract delivery dates. Storage is also a common "next step" for producers of fruit and vegetable crops wanting to add value to crop production. A potato or sweetpotato grower with access to storage facilities of the proper temperature and humidity could capture markets later than harvest date, including potentially lucrative holiday markets. A berry or tree fruit grower could utilize available labor to harvest fruit, and then use cold storage to keep the fruit until marketing. Storage can be an essential means for adding value to many different kinds of crops.

ADDED SERVICE refers to providing information or services that increase a crop product's value. Farmers market vendors or Community Supported Agriculture (CSA) producers might provide customers with recipes utilizing new and unfamiliar vegetables. Nutritional information about crops might be provided for direct market consumers. Many farm producers find that providing a service — especially information — about their products can be an important means of adding value to crops.

Selected Resources

Web sites

- Food Systems Innovation Center (University of Kentucky)

http://www.uky.edu/fsic/

Provides technical and business development services to facilitate the profitable production, processing, and marketing of locally produced and processed food by Kentucky-based enterprises and entrepreneurs.

- Agricultural Marketing Resource Center

http://www.agmrc.org

A national electronic resource for producers interested in value-added agriculture. Includes information on commodities, products, and industry trends; also business development information, case studies, and links to hundreds of other helpful publications.

- ATTRA / National Sustainable Agriculture Information Service

http://www.attra.org

A comprehensive Web site on sustainable agriculture production practices and marketing.

- Center for Profitable Agriculture (Tennessee)

http://cpa.utk.edu/

A source of numerous publications for value-added marketers.

Online publications

- Kentucky Food Consumers Survey (University of Kentucky)

http://www.ca.uky.edu/AgEcon/index.php?p=269

- Selected Resources for Developing Value-added Products in Kentucky (University of Kentucky, 2010)

http://www.uky.edu/Ag/cdbrec/varesources.pdf

- Adding Value to Farm Products: An Overview (ATTRA, 2006)

https://attra.ncat.org/attra-pub/summaries/summary.php?pub=270

- Adding Value Through Sustainable Agriculture Entrepreneurship: Overview and Resources (ATTRA, 2003)

https://attra.ncat.org/attra-pub/summaries/summary.php?pub=275

- Grain Processing: Adding Value To Farm Products (ATTRA, 2002) *1.1 MB file* https://attra.ncat.org/attra-pub/summaries/summary.php?pub=103
- Keys to Success in Value-Added Agriculture (ATTRA, 2001) https://attra.ncat.org/attra-pub/summaries/summary.php?pub=271
- Marketing for the Value-Added Agricultural Enterprise (University of Tennessee, 2007) http://utextension.tennessee.edu/publications/Documents/PB1699.pdf
- USDA Value-added Ag Definition (Agricultural Marketing Resource Center) http://www.agmrc.org/business_development/getting_prepared/valueadded_agriculture/articles/usda_valueadded_ag_definition.cfm
- What is Value-Added Agriculture? (Agricultural Marketing Resource Center, 2009) http://www.agmrc.org/business_development/getting_prepared/valueadded_agriculture/articles/index.cfm

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[1] USDA Value-added Ag Definition (AgMRC) http://www.agmrc.org/business_development/getting_prepared/valueadded_agriculture/articles/usda_valueadded_ag_definition.cfm

[2] Boland, Mike. "What is Value-Added Agriculture?" (AgMRC) http://www.agmrc.org/business_development/getting_prepared/valueadded_agriculture/articles/index.cfm

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Photos by R.A. Hammon, Bugwood.org (grapes, pg. 1); Steve Patton, UK Agricultural Communications Services (wine, pg. 1); Matthew Ernst, University of Kentucky (flour, pg. 2); and Brent Rowell, University of Kentucky (potatoes, pg. 3)