Things to Consider when Looking at Alternative Specialty Crops

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Introduction

USDA's Agricultural Marketing Service defines specialty crops as "fruits and vegetables, tree nuts, dried fruits, horticulture, and nursery crops (including floriculture)" as per Section 101 of the Specialty Crops Competitiveness Act of 2004 (7 U.S.C. 1621 note) and amended under section 10010 of the Agricultural Act of 2014, Public Law 113-79 (the Farm Bill). Examples of the more than 170 USDA-recognized specialty crops are included in Table 1. According to the 2012 U.S. Census of Agriculture, nearly 245,000 farms produced specialty crops on nearly 69.4 million acres and generated \$83.4 billion in market value of products sold (USDA, 2015a). Nearly 43% of specialty crop acreage was in orchard production (citrus, noncitrus, and tree nuts), while 29% of acreage was used to grow vegetables. Nursery, greenhouse, and floriculture crops were grown on 22% of specialty crop acreage.

Given the wide variety of US-grown specialty crops, farms are located across the country although production tends to cluster in certain geographic regions due to production and marketing considerations. For many of these crops, imports exceed exports to meet growing consumer demands. While fresh and processed fruit and vegetable US exports totaled \$8.5 billion in 2015, US imports exceeded \$20 billion, shifting the United States from a net exporter in the early 1970s to an increasingly net importer in spite of growing export volumes (Johnson, 2014). A producer's decision to produce specialty crops is motivated by numerous internal and external factors, which are captured in the SWOT diagram (Figure 1).

Background – Current Risk Assessment

Across nearly all types of specialty crop farms, about one-third of operators are women (USDA, 2015 [b]). Interestingly, 110,325 (45%) of specialty crop operators indicated that their primary occupation is NOT farming, and less than eight percent indicated that all of their income was generated from their specialty crop enterprise (USDA, 2015[c]. Yet, approximately 105,000 (43%) of specialty crop operations reported hiring farm labor, and employed 1.35 million workers in 2012 (USDA, 2015[d]). Orchards accounted for 48% of total hired laborers, while vegetable and nursery, greenhouse, and floriculture operations required 399,977 and 345,247 laborers, respectively, to produce and harvest their products.

Federal and state level support, such as the 2002 Technical Assistance for Specialty Crop (TASC) program, designed to improve producer access to global markets has resulted in increases in export values for specialty crops from \$7.3 billion in 2002 to \$21.6 billion just ten years later as shown in Figure 2 (USDA, 2013). Several southeastern US states have received TASC funding, including Florida, Georgia, South Carolina, North Carolina, and Virginia.

While the export market has grown and trade barriers continue to diminish through newly negotiated trade

Fruit and Tree Nuts	Vegetables	Culinary Herbs and Spices	Horticulture	Annual Bedding Plants	Deciduous Shrubs
Almond	Broccoli	Allspice	Honey	Begonia	Barberry
Apple	Pea	Basil	Turfgrass	Dahlia	Hibiscus
Blueberries	Okra	Cumin	Hops	Impatiens	Rose
Mango	Pumpkin	Mint	Tea leaves	Pansy	Virburnum
Pecan	Lentils	Paprika	Maple syrup	Snapdragon	Bubbliea
Olive	Watermelon	Dill		Marigold	Hydrangea

Table 1. Examples of Common USDA-Recognized Specialty Crops.

Source: USDA-AMS website (2016). Link to inclusive list: https://www.ams.usda.gov/services/grants/scbgp/specialty-crop

agreements, the complications associated with exporting fresh produce and live horticulture/floriculture products are numerous and ever-changing. A summary of the trade issues facing US specialty crop producers is included in the USDA Specialty Crop Trade Issues 2013 Annual Report to Congress and producers are encouraged to learn more about these issues prior to exploring export market opportunities.

USDA's Risk Management Agency provides interactive crop insurance program reports along with <u>maps</u> indicating where insurance products are available, by county, nationwide. Coupled with high initial establishment costs, the perennial nature of many specialty crops, and operator investment in direct marketing channels, crop insurance protection is an underutilized risk management tool across this industry. It is worth noting that while there are almost two hundred recognized specialty crops, only a few specialty crop operators have the opportunity to manage production risk exposure through crop insurance protection due to limited availability of programs.

A major source of market risk for specialty crop producers are volatile market prices coupled with wide variability in market supplies, particularly for fresh product forms or those with limited or costly storage options (sweet onions, citrus). The majority of specialty crop operations sell directly to retailers and/or the final consumer and quality expectations are stringent, forcing growers to deliver products quickly or risk losing major buyers in case of any complains about product defects. Harvest labor costs typically represent 30%-80% of annual operating costs, and in some cases where market prices are low, crops may even be left in the field to avoid these expenses. Harvest windows may extend for just 4-6 weeks, resulting in near-total crop losses should excess rain, drought, or heat occur during that timeframe. Colder weather may also push harvest times back in Southeastern regions, allowing time for Northern regions to provide larger volumes, driving grower prices down by as much as 50% within just a few days' time. There are no futures markets options available to specialty crop growers, which greatly reduces their ability to profitably mitigate their risk exposure to changes in market prices.

Opportunities and Challenges

The US Secretary of Agriculture and the US Secretary of Health and Human Services encourage increased fruit and vegetable consumption by issuing a new set of dietary goals and nutrition guidelines for Americans (hereinafter 2015 DGA). The thrust of the 2015 DGA, otherwise referred to as MyPlate, is to substantially reduce intake of calories and fats as part of the fight against obesity. This goal is accomplished by: (1) increasing vegetable and fruit consumption to the point where their portions account for half of the MyPlate consumption; (2) increasing whole grain consumption: (3) substituting fish and nuts for red meats; and (4) substituting skim milk, soymilk, yogurt,



Figure 1. SWOT Analysis of US Specialty Crop Production and Marketing.

and cottage cheese for higher fat/calorie dairy products, including full-fat milk, chocolate milk, cheese, butter, etc.

The total availability of fruit (domestic production + imports - exports) will need to increase by 127.9% to meet the 2015 DGA's recommended amount. In addition, the total availability of vegetables (domestic production + imports - exports) will need to increase by 56.5% to meet the 2015 DGA's recommended amount. This potential increase in demand would be beneficial to the fruits and vegetable industries as higher demand leads to higher prices. However, US producers need to be able to compete with imports from Mexico, Central and South America, and Canada, among others.

Potential Consequences

Organic production and other specialty designations such as functional foods and nutraceuticals represent alternative production methods and value-added market opportunities for specialty crop growers that may increase profitability. The 2015 USDA Dietary Guidelines which encourage higher consumption levels of fresh produce consumption coupled with increasing metabolic health issues facing American consumers motivate new farmers and experienced farmers looking for diversification opportunities to invest in alternative crops. The rapid increase of numbers of farmers' markets and Community Supported Agriculture (CSA) shares represent direct to consumer marketing avenues for specialty crops. Volatile market prices and fluctuating supplies represent two major sources of risk facing specialty crop producers. Exposure to new regulatory risks is presented by the Food Safety Modernization Act and instability in political circles regarding use of migrant labor to harvest specialty crops and minimum wage laws. The impact of pending labor shortages in Mexico adds further concerns to specialty crop producers who rely heavily on hired farm labor to care for and harvest crops during short market windows. With nearly half of fruit and vegetable production occurring in the western United States, continued droughts and increasing population numbers drive concerns about limited access to water for agricultural uses.

Overall, producers need a better understanding of the availability of risk management resources, such as educational programs, market/consumer research, business/ market plan development, and financial resources.

Conclusions

In conclusion, there are specific gaps in knowledge and resources that may be provided by research and extension specialists. Specialty crop growers require updated, customizable enterprise budgets in template format specific to their regional growing conditions and production methods (irrigated, high tunnel, intensive). These simplistic yet powerful tools provide new and experience growers with information about the necessary components required to produce average yields and under varying market price



Figure 2. Specialty Crops Trade By Country (USDA, 2013). Source: USDA/FAS Global Agricultural Trade System

expectations. With few exceptions, specialty crop operators need resources to improve technical knowledge about these crops and the market situation and opportunities available to them. Extension specialists receive daily requests from growers who need information on managing production risks, and, more importantly, seek a better understanding of market demand and price trends for these products. Specifically, the authors suggest development of a database of knowledge, by specialty crop type, that could be shared throughout the Southeastern region.

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