

Progress report on the BIOAg Award “Development of Washington Organic Producer-Level Database on Crop Yields, Sales Value, and Price”

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Project Summary

The continued growth in the organic food market presents many Washington growers with the difficult decision of whether to switch from conventional production. While a cost and return estimate (enterprise budget) is a fundamental tool for the considering a new enterprise, information beyond a net return estimate for the “typical” producer is more crucial for organic producers. Net returns are more variable due to greater production and market risks. We initiated a project to capture yield and sales data on six organic crops from WSDA Organic Food Program records to understand the variability of these parameters and create estimates for use in budgets. This proposal requests additional funding to capture additional crops and years of data and construct an electronic database to be used for a range of research and extension purposes that aim at providing more complete information on the economic opportunities and risks from switching to organic farming.

Leverage Plan

We have had significant communication with USDA RMA and are continuing to work with them in the hope they may be able to fund future work related to this project. We are also pursuing cooperative agreements with USDA and plan to apply for additional USDA funded competitive grants.

Work Completed

Substantial additions were made to the database by completing all of the 2012 reports. We have also integrated in the “Site Acre Data” which is a separate set of data kept by WSDA that strictly records the number of acres certified organic by grower by year for the years 2005 through 2013. We have continued to build data processing infrastructure in Excel and Python to automate processing of the raw database for quantitative analysis. This significantly speeds up and reduces the chance of error in data analysis compared to relying on Excel. The library of Python code is being documented and organized to be made available to any future users of the data, including WSDA. This code performs a number of tasks including creating summary statistics along a number of dimensions, aligning data either by crop production year or sales year, producing new variables, and performing statistical analysis such as regression analysis and distribution fit tests.

We have focused on publishing a set of WSU Extension Factsheets as the initial outputs. The first report submitted on berries (Raspberry, Strawberry, Blackberry, Blueberry) has been accepted for publication. The second report submitted was an expanded analysis of blueberries, which has been resubmitted after receiving reviewer comments.

We continue to work extensively with USDA RMA to get their data on conventional blueberry production, yield, and prices to compare to organics. This information is included in both fact sheets.

Future Work

Two more factsheets are nearing completion and will be submitted in summer 2014. The first is a major vegetables report which includes snap beans, carrots, onions, green peas, potatoes, and sweet corn. The second is an analysis of entry, exit, and growth of organic farms using the site acre data covering the years 2005 to 2013. As shown below, this was a time of rapid expansion and contraction of organic acreage which provides valuable information on the farm level dynamics that drove aggregate changes in the size of the industry. We are examining the characteristics of firms that exited organic certification compared to those that did not in terms of the year they entered, their scale upon entry, diversification of crops, and region. A journal article is also being prepared based on this analysis.

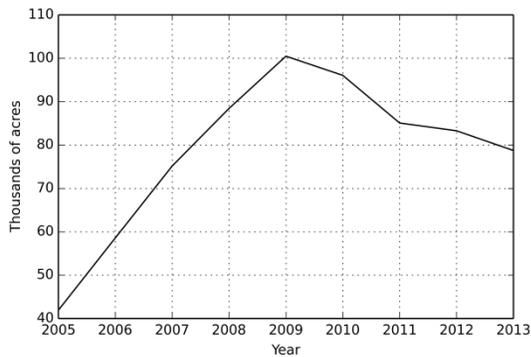


Figure 1. WSDA certified organic acres in Washington.

We have also initiated collaboration with other WSU County Extension faculty in parts of the state that specialize in the crops that we are producing factsheets for. Our first collaboration is an expanded research article on berries with faculty in Skagit County.

We also hope to initiate new collaborations and new funding through a series of seminars and meeting presentations given throughout Washington in the Fall of 2014. This includes giving talks at the county extension offices in Puyallup, Snohomish, Skagit, Prosser, and Richland. Funding for these talks is provided by Dr. Brady's extension budget.