FSMIP Final Performance Report

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Date:	**12/29/17**
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Recipient Name:	**Washington State Department of Agriculture**
Project Title:	Value Chain Strategies for Source-Identified Minimally-Processed Produce for School Markets
Grant Number:	**15-FSMIP-WA0009**
Total Awarded Budget:	**$ 62,265 (Actual Expenditure: $60,575.34)**
Total Match:	**$ 62,915 (Actual Match: $61,748.59)**

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A Study Results report with full research outcomes, key findings, analysis, and recommendations is available from Washington State Department of Agriculture by request. *Please contact smallfarms@agr.wa.gov for a copy.*

I. Problem Statement

Washington State growers frequently express interest in expanding their sales channels from direct-to consumer markets to also include higher-volume institutional markets. They also grow many products schools want. Unfortunately, local farms have not yet been able to surpass the challenges posed by insufficient infrastructure for aggregation, distribution, and, especially, processing to take full advantage of the markets for higher volume, source-identified products. Most schools and many institutional markets require produce items to be minimally processed in order to purchase them. Most farms lack access to efficient minimal processing infrastructure. Though this challenge has been identified through previous studies, little information exists on how to navigate and solve the infrastructure gap. Key needed information included understanding current processing businesses and capacity and options for building new value chain partnerships with processors to fill the infrastructure gap.

Multiple efforts underway across the state are developing new "value chains", such as food hubs and producers' cooperatives for the purpose of improving aggregation, distribution, and marketing. These emerging efforts leverage collaborative logistics to gain efficiencies in farmers' established direct-to-consumer sales channels. They also present opportunities for smaller farms to aggregate product in volumes that allow them to capture value in larger-volume sales to schools. Schools require larger volumes of product and produce that has been chopped, mixed, packaged, frozen, stored for season extension, or otherwise minimally processed. Yet many of these value chain businesses have only begun

to address the minimal processing gap between local farms and institutional buyers, with varying levels of success. Assessing these emerging "value chain businesses" to understand their needs, operations, and potential roles in filling the infrastructure gap was a core part of the project.

WSDA initiated this project along with various partners in Washington State to:

- Better understand processor needs, capacity, and limitations for working with smaller growers
- Facilitate peer to peer learning about different food hub models across the state, and their attempts at processing products for the school market
- Identify new opportunities to fill the processing infrastructure gap between food hubs, direct market farms, and school buyers
- Develop and support opportunities to fill infrastructure gaps

II. Project Approach

WSDA Regional Markets Program's study took an applied research approach to analyzing the relationships between food hubs, small farmer co-ops, farmers, processors, and school food service through information collected through a mix of surveys, in depth interviews, and case studies.

WSDA conducted applied qualitative and quantitative research to learn about traditional wholesale supply chains as well as values-based supply chains and value chain strategies. Project activities included surveying and interviewing farmers, food hubs, small farmer co-ops, and processors throughout the state. WSDA convened an advisory group of currently operating and in-development food hubs and small farmer marketing cooperatives to help WSDA understand their challenges and opportunities.

WSDA conducted interviews and developed and distributed surveys to food hubs, processors, and school districts to better understand perceptions and barriers that cause existing processing businesses to show little interest in providing services for processing, co-packing, storage, and distribution for small and mid-sized growers. WSDA surveyed over 100 processors in Washington State. A follow-up survey was sent to a subset of 40 processors that indicated interest in pursuing new relationships with school buyers or small farm suppliers. WSDA also conducted interviews with a variety of small to medium sized processors to learn more about the barriers to direct sourcing from farms and food hubs, their ability to rent out their facilities, volume requirements, and limitations to offering their services on a contract basis to farms and food hubs. WSDA also conducted a quantitative analysis of WSDA Food Processor Licenses for specific processing types in some regions of Washington State.

This project approach was designed to gather and report on data collected through the study while also facilitating new connections between participants and resources in order to support future business relationships and value chain development to serve local institutional markets.

III. Work Performed

The project was designed with an applied, action research approach. WSDA engaged directly with project participants to pilot case studies, formulate value chain strategies, and support ongoing work towards source-identified product sales to schools. The work performed was organized into two primary objectives.

Objective 1: Understand Market Sector Needs

Through surveys, interviews, and other data sources, WSDA developed an understanding of market sector needs by identifying barriers hindering value chain relationships to supply source-identified processed products to schools. WSDA convened an Advisory Group of current and in-development food hubs which provided guidance and input on research goals and questions, current sector needs, project outcomes, and activities. WSDA reviewed data from past surveys to observe trends and inform surveys and interviews initiated through this project. WSDA also reviewed a variety of previous studies and research to understand the context of current infrastructure gaps.

The majority of the project research activities consisted of surveys and interviews initiated by WSDA to better understand the barriers processing businesses face in providing services for growers, needs and barriers facing food hubs and small farmer co-ops when they purse processing services, current processing capacity, and potential opportunities for source-identified, processed product partnerships.

The findings, analysis, and study results were compiled into a final report shared with project partners to inform future value chain efforts and development.

Objective 2: Provide Systems and Services

To learn through the experience of applied activities, WSDA supported the development of new value chain strategies with information sharing, facilitation, and resource development focused on current processing capacity in Washington State.

To quantify basic processing services that were available, WSDA completed a basic asset mapping of processor capacity by conducting a 2016 Farm to School Processor Survey, a follow-up Processor Focus Group Survey, interviews and surveys with current food hubs, and an analysis of current WSDA Food Processor Licenses. With these tools in hand, WSDA was able to respond to requests for scale-appropriate processing services and develop a web-based networking opportunity for supply chain stakeholders to support value chain development.

WSDA worked to build connections between farmers, processors, and sometimes buyers to facilitated market access for emerging value chain businesses. WSDA provided information collected during the project to various stakeholders through referrals to increase awareness of existing processing infrastructure and to support new supply chain partnerships. Development of an customized Salesforce database equipped WSDA to provide better networking and referral services in support of regional links in produce value chains. In partnership with stakeholders, and complemented by other projects, WSDA conducted rural economic development trips to provide services in-person to Whatcom County, Spokane County, and Walla Walla County. WSDA also hosted a popular networking call with food hubs and processors to facilitate relationship building and explore shared strategies.

In addition, WSDA compiled a "Value Chain Processors Directory" to share information about a subset of processors responding to surveys or otherwise indicating interest in developing value chain relationships. WSDA also customized a Salesforce database and added data about available processors and other potential value chain partners to the database. At the request of project partners made the findings of this project available to farmers and processing businesses in a more effective and helpful format with development of a Toolkit that includes a variety of resources and factsheets relating to the various steps in the value chain and product development process,. Finally, WSDA compiled a final report for project partners which included analysis of different value chain models, tactics, and strategies that value chain actors can employ in developing business initiatives or source-identified products. All of these tools and reports will continue as useful resources for those working to strengthen value chain relationships between farmers, food hubs, co-ops, processors, and end customers.

IV. Results, Conclusions, and Lessons Learned

Results

The project objectives included enhancing WSDA's knowledge of available and appropriately scaled processing capacity in Washington State, identifying strategies farmers, food hubs, processors and school buyers could use to increase the availability of minimally processed produce, and supporting current or in-development value chain businesses and products. WSDA accomplished these objectives, and is working to apply these learnings through future projects and services.

Conclusions

Available Processing Capacity

The availability of appropriate processing infrastructure can vary widely depending on the region and the crop. Most food hubs interviewed struggled to find scale-appropriate equipment or businesses to provide processing services, especially for mechanized fresh cut and Individually Quick Frozen (IQF) products. In some specific regions that do have fresh cut processing equipment or businesses available, information about those services or capacity for businesses to develop new value chain relationships was lacking. Through this project, WSDA worked to provide reduce this information gap.

Emerging Value Chain Models

Three primary "value chain" models for minimally processed produce were observed:

1. **Food Hubs or Co-ops as Processors:** Some food hubs have internal capacity to purchase and/or process their own member's produce into specific products. They are still working to refine their operations, marketing, or suppliers to achieve a financially and operationally viable business models.
2. **Using Food Hubs to Market Single-Farm Processed Products:** Some food hubs do not have their own processing capacity, but may have the opportunity to increase the capacity, sales, and marketing for individual farmers within their membership who already produce their own processed product that is sold through the food hub. Many of these products already fulfill wholesale buyers' needs, and may just need additional marketing to wholesale buyers or adjustments to pack sizes and pricing.

3. **Processor partnerships:** Four out of five food hubs interviewed already sell to a small or medium sized processor. With additional time, resources, or information, food hubs and farmer co-ops could refine products with a processor to better serve K-12 school buyer needs. Relationships with new scale-matched processors may also be required, to provide infrastructure for source-identified sourcing, product development, and marketing to K-12 school buyers.

Learning from Traditional and Alternative Supply Chains

School buyers are consistently interested in accessing minimally processed produce from local farms and would be able to purchase more volume from local farms if products were minimally processed. Many processors in Washington State are consistently interested in increasing their sourcing of Washington grown produce. Strengths from traditional processors that sell to wholesale markets include customer responsiveness, competitive pricing, product line promotion, freshness, quality, and vertical integration. Value chain partnerships will need to overcome challenges with scheduling, marketing and source-identification, size, scale, and regulations affecting food processing businesses.

Food hubs and farmer co-ops are successfully engaging farmers by making sales, marketing, and distribution easier for their buyers and suppliers. Food hubs are also beginning to communicate to their farmer members about the viable market opportunity that K-12 schools and processed products offer, supporting cooperative development of marketing and supply chain strategies. Many food hubs and farmer co-ops have challenges with processing, such as quality and product development, funding and economies of scale, and lack of staff capacity that new value chain partnerships may be able to help overcome.

Need for New Infrastructure

In their efforts to meet school and institutional demand for source-identified, minimally processed product, every food hub surveyed struggled to find specialized, efficient processing facilities available in their region for certain products. They also struggled to find businesses that could provide a processing service on a contract, and that could offer cold and frozen product storage. Food hubs and direct marketing farms would be able to better serve buyer needs with increased access to processors or infrastructure, but the feasibility of new infrastructure initiatives would need to be established.

Unique partnerships between buyers seeking local, source-identified, processed products could yield major results. Buyers and food hubs could leverage buyer investment in equipment, resources, expertise, or coordinating capacity to meet buyers' needs and specifications.

Metrics

WSDA exceeded its initial project goals in these following measures.

- At least 13 new relationships were initiated through the project, with WSDA's support in networking calls, directory and toolkit development, or referrals.
- 10 new vendors, including one food hub, seven farms, and two distributors, were approved for the USDA Pilot Project for Unprocessed Fruits and Vegetables during the project period.

- $467,767 in entitlement dollars were spent through the USDA Pilot Project for Unprocessed Fruits and Vegetables during the 2015-2016 School Year.
- 30 new contacts were added to WSDA Regional Markets' Salesforce database.

V. Project Benefits

Participating businesses now better understand potential tactics for developing value chain strategies to provide more source-identified, minimally processed products to school buyers. Many food hubs and farmer co-ops were able to analyze their own processing initiatives and opportunities through the project with WSDA's support. Their products and business or processing models may see increased success due to involvement in the project. Many participating processors have more direct connections to food hubs and farmer co-ops in their area, a stated need for them to increase local and source-identified purchasing of Washington grown products.

WSDA Regional Markets Program has enhanced its ability to support value chain development in regions across Washington State through referrals and technical assistance. This capacity will benefit farmers, processors, and food producers as they enlist WSDA in supporting their access to institutional buyers.

VI. Recommendations for Future Research

Recommendations for future research and, if applicable, an outline of next steps or additional research that might advance the project goals.

Further research into scale-appropriate food science and product formulation for minimally processed products targeting small-scale local farmers, food hubs, and co-ops attempting could benefit regional value chain development. Though some on-demand expertise is available, additional resources on the food science behind fresh cut, frozen, or dried fruit and vegetable products applicable to small scale operations would support farmers and food hubs in developing high quality products.

Continued updates and detailed information about available processing infrastructure in Washington State would also benefit farmers, food hubs, and co-ops attempting to develop new source-identified, minimally processed products. Further research on multi-sector strategies, including public agencies and districts, for developing processing infrastructure to meet regional needs could also benefit local farms and economic development.

VII. Project Beneficiaries

- **Small scale farmers**: 117 small scale mixed vegetable, fruit, and other types of producers were served though the participating food hubs and farmer co-ops. 78% of the farms were less than 10 acres.
- **Processors:** 41 opted in to participate in the project via WSDA's Farm to School Processors Survey 2016. Most were small businesses with less than $50,000 in gross sales per year.
- **Food hubs and farmer co-ops:** Five value chain businesses participated intensively as project partners, and five additional emerging food hubs responded to a questionnaire.

In addition to these direct project beneficiaries, many additional stakeholders throughout the state will continue to benefit from the information and resources developed through this project. WSDA will build on this research to deliver technical assistance and guidance to emerging food hub and value chain efforts around the state with an awarded Specialty Crop Block Grant. Since initiating this project WSDA has shared information with multiple stakeholders involved in rural economic development efforts that are exploring the opportunities for economic growth related to food processing facilities and other food hub infrastructure, which could benefit some of the 2,275 direct marketing farms operating in Washington State.

VIII. Project Publications

Applied research learnings from this project was used to generate tools, factsheets, and resources for farms, food hubs, small farmer co-ops, processors, distributors, and other value chain businesses. These resources were developed with input from project participants who request information in a formats that was effective and accessible for farms and small businesses.

- Strategic Planning Tools
    - Processing Price & Volume Calculator
      A calculator for estimating various production costs, volumes, and prices to help businesses assess the viability of source-identified processed products.
    - Product & Business Planning Chart
      An exercise to businesses assess current or future product and service offerings
- Business & Production Planning Tools
    - Value Chain Processors Directory
      A list of processing businesses and commercial kitchens in Washington State, including processors that indicated interest in participating in WSDA's supply chain study. The directory is an asset map to help facilitate supply chain partnerships that support small and medium sized farms.
    - Farm to School Processed Produce Volume Estimates
      Yearly and monthly estimated purchase volumes of processed produce items for K-12 school districts in different regions in Washington State.
    - Farm to School Local Processed Price Guide
      Yearly and monthly estimated, average prices of processed products for K-12 school districts in Washington State.
    - Farm to School Processed Product Specification Chart
      An overview of product specifications for minimally processed fruits and vegetables common in food service markets

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IX. Grant funds expended this period: $9,827.91

X. Matching contributions this period:

Agency	Rate	Count	Total
WSDA Staff Match – Lisa White, Administration	$40.02	19.5	$780.35
WSDA Staff Match – Kim Eads, Program Manager	$62.38	16.5	$1,029.29
WSDA Staff Match – Laura Raymond, Project Manager	$51.66	58	$2996.28
WSDA Staff Match – Julie Johnson, Project Manager	$63.31	16	1,012.96
WSDA Staff Match – IT Program Staff and Supervisor	$63.00	194	$12,222.00
WSDA Staff Match – Chris Iberle, Project Coordinator	$38.31	14	$3,693.08
WSDA Sub-contracts Match (Salesforce licenses)			$2,496.00
		Total:	**$24,229.96**