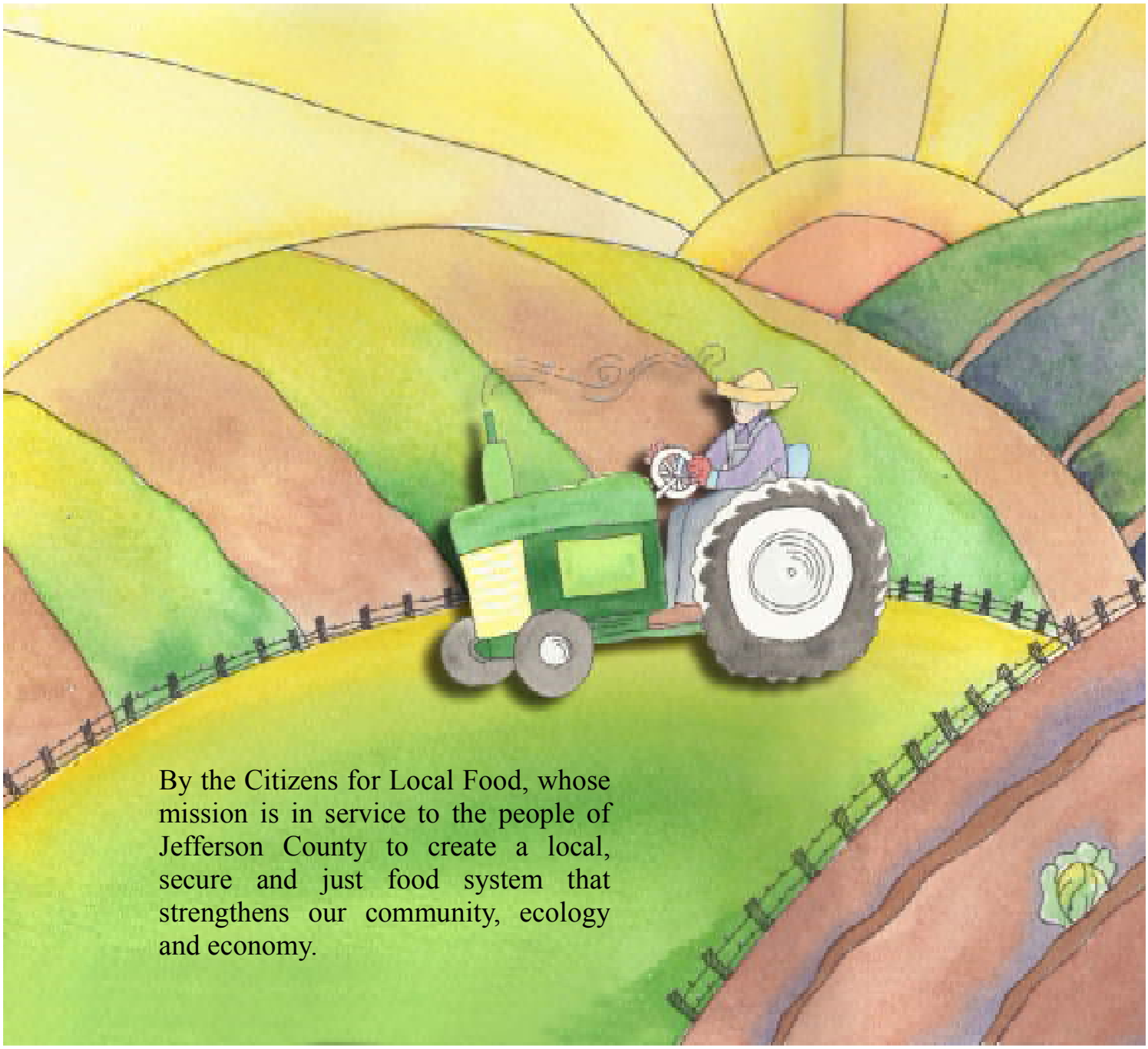
Jefferson County Farmer Survey 2012 Report



By the Citizens for Local Food, whose mission is in service to the people of Jefferson County to create a local, secure and just food system that strengthens our community, ecology and economy.

ABSTRACT

In March 2011, Katherine Baril, the recently retired Director of the Washington State University Jefferson County Extension, gave a public presentation on food and farm issues for the Jefferson County Planning Commission as part of the Commission's review of the Comprehensive Plan and Unified Development Code (UDC) and in preparation for the 2016 Periodic Update required by the State Growth Management Act. Inspired by Dr. Baril's talk and after an impromptu discussion with the audience, including many long-time advocates of local agriculture, the planning commissioners expressed their desire to consider changes to the County's comprehensive plan to help preserve farm land and to support our Jefferson County farmers.

In a moment ripe for collaboration, Citizens for Local Food (CLF) coalesced from the local agriculture supporters in attendance. CLF then began meeting for the purpose of drafting, conducting, analyzing and reporting on a comprehensive survey of our local farmers, and to deliver the results of this work to the Planning Commission to aid them in their review of the UDC.

In the nearly two years since CLF was organized we have learned a great deal about our agricultural community, not the least of which is that they are generous with what little free time they have. 71% of the 80 farmers we were able to contact took an hour and a half break from their work to be asked over one hundred questions by a CLF volunteer.

We learned that farm products vary widely, and we discovered interesting relationships between sales outlets, production type and profitability. We learned that nearly all of our farms depend on off-farm income to survive. We learned that while some farms are economically viable, no East Jefferson County farmer is getting rich (no net incomes above $85,000) and 40% of farmers who were interviewed reported that they had either no profit, or had losses.

We learned that a majority (81%) of our farmers have college or post graduate training. We learned that there is a strong leaning toward environmental stewardship in our farming community with three quarters of the farmers who reported critical areas on their farms having collectively installed nearly eighteen miles of critical area buffer protection.

We learned that the largest principle farm operator age group (65% of surveyed farmers) is over fifty years old and tends to be male while the second largest age group (20%) is in their thirties and is more likely female.

We learned that a large number would like to farm more land and that a lack of affordable, appropriate land stands in the way of greater profitability; that farmers want smart regulations and smart regulators who communicate well; and that a large majority did not know of significant regulatory exemptions, already created, by one County permitting agency designed to help our agricultural community succeed.

And we learned that as important as it is to reshape the regulatory landscape if we are to enjoy greater food security in Jefferson County, the largest obstacle to our farmer's success that we need to overcome is a lack of demand for their products. This fact will surely be a central focus for Citizens for Local Food in its next efforts in years ahead.

Executive Summary

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In March 2011, the Jefferson County Planning Commission was inspired by a presentation given by Katherine Baril (recently retired Director of WSU Jefferson County Extension) on food and farm issues. Afterwards planning commissioners expressed a desire to consider changes to the County's comprehensive plan to help preserve farm land and support local farmers. To encourage continued interest, an ad hoc committee of county citizens formed called "Citizens for Local Food (CLF)." They agreed to pursue four projects to achieve their goal: encourage adoption of a resolution supporting local food, conduct a comprehensive farm survey, complete a study entitled "Can Jefferson County Feed Itself?" and conduct community conversations about food. For the farm survey project the committee designed a detailed survey, implemented an effective process for interviewing farmers (which guaranteed anonymity of responses), analyzed the data collected and crafted a summary and report of survey results.

Survey Results

Of 87 farms identified, 80 were successfully contacted and 57 completed the survey. This response (more than 71%) was an amazing rate of return for the in-depth, 90-minute interview required. Farmers responded to this opportunity to be heard.

Who is Farming in Jefferson County?

Results showed that farmers are a well educated group, 46% graduated from college and 35% had post graduate education. The respondents ranged in age from 22 to 84 years. The majority (65%) were age 50 or older. 38% of farmers are 60 years or older, and 16% are 70 or older. More farmers over 50 are men than women and tend to have owned their farms for significantly longer periods of time. The second largest group (20%) were in their 30's and have been working on their farms for an average of less than 10 years. Women make up nearly half of this age group. One quarter of farmers surveyed were solo farmers, the majority of whom (9 of 14) were women. Twenty farms use only family labor. A grand total of 306 people work on those 57 farms surveyed: 129 family members (42%), 88 hired workers (29%), 52 workers bartering their labor (17%), and 37 farm interns (12%).

What are Our Farmers Producing?

Three major categories of farm production were identified: livestock-related (on 41% of farms, 111 acres average), crop or plant-related, i.e., berries, fruit, vegetables and garden starts (28% of farms, 9 acres average) and combination - both livestock and crops (on 32% of farms, 67 acres average). The average length of time farms have been in operation by category is livestock: 44 years, crops: 10 years, both: 22 years. The majority of farmland acreage is in livestock and livestock-related (including hay and pasture) production. Livestock farms are larger and have been in operation longer than crop-based farms. An increasing number of small farms are focusing on a variety of high-yield crops and both livestock and cropping. Almost half of farmers report that they produce value-added products (15% specialize only in value added products), and of the remaining farms not producing value added products, all are interested in or considering producing them.

Who is Buying Local Farm Products?

Markets were analyzed by category of sale: Direct: on-site farm stands and CSA programs (32%); Wholesale (22%); Retail to local grocers, i.e., PT Food Co-op, Chimacum Corner Farmstand, etc. (23%); Farmer's Markets at five locations (17%); eight local Restaurants (5%); and fairs (3%). Total product sales show 75% in Jefferson County; 25% outside, mainly in Clallam, Kitsap and King Counties. Farmers emphasized the need to grow their customer bases by better educating local people about economic, health and epicurean benefits of fresh, local, seasonal foods.

Do Our Farmers Earn Sustainable Income on Farms?

The incomes of our farmers fall into two broad groups with somewhat differing economic situations: those with less than $50,000 gross income per year and those with more than $50,000 gross income. The higher revenue group tended to be younger, hire more people, have greater investment in farm buildings and structures, and farm larger acreages. They also had median net incomes of ~$25,000, median profitability ratios of 14% and a five year trend in incomes that averages +45%. The group with revenues lower than $50,000 tended to be older, have few employees, work less hours, have less investment in farm structures and produce from smaller acreages. They also have a lower median net income of $200, a lower median profitability ratio of 8% and an average five year trend in income of -9%. The lower revenue group especially depends on non-farm employment or other sources of income: 97% would not be able to continue farming without non-farm support. In the higher revenue group 67% of the farms depend on non-farm income. In both income groups farm stability could be at significant risk if there were serious illness, significant monetary losses, loss of non-farm work, an inability to pass the farm to younger operators or catastrophic events.

What Stands in the Way of Our Farmers Making Sustainable Income?

Lack of demand was cited by 40% of farmers as the "biggest barrier." Lack of profitability was second (reported by 20%), especially from labor costs and lack of capital. Lack of affordable land was cited third most often (45% of farmers want to farm more land). Regulations rated fourth, especially public health regulations for value-added products, animal transport and local meat processing. Many asked for better clarification of regulations. Farmers identified need for: "booklets" explaining rules and tips for building housing (for interns) that would be more readily approved, with reduced "mitigations that seem inconsistent or politically based," and "encouraging staff to focus on helping farmers." Two-thirds of farmers cited cost and access to capital in general and specific costs concerns about fuel (20%) and labor. Other obstacles included water limitations.

Critical Areas: Farmers (over 56%) have critical areas on their properties. This county is blessed with a high level of voluntary stewardship among our farmers. Over three quarters of farmers with critical areas have made improvements. Farmers (88%) reported that they have installed nearly 18 miles of protective plant hedges, and pump water for livestock (with solar power), to protect streams!

What can be Done to Strengthen Local Food Production?

Farms in Jefferson County are a diverse set of enterprises with different concerns, business strategies and goals, however lack of local demand was the most cited barrier to increasing the amount of local food produced, and the greatest obstacle to individual farm success. The most desired improvements are: more direct sales at farms or CSA's (23%), increased sales at local retail outlets (23%), and increased sales at local restaurants (15%). Many farmers see increased consumer education as key to increasing demand for local food. Local consumers can support our farmers by increasing their food purchases at farm-stands, joining CSA's, looking (and asking) for local produce at retail outlets and restaurants. Farmers realize that value-added products are often more profitable. Improving regulation was often mentioned; many farmers suggested that local authorities need to "improve staff communication," and further coordinate, simplify and reduce turn-around times of permitting sequences as the best ways to improve impacts of local regulation. Farmers earning less than $50,000 can increase their profitability by increasing the intensity of their marketing practices. For farmers earning over $50,000 improved access to quality agricultural land can lead to increased profitability. Our farmers are interested in cooperative farm operations.

Section I.
Introduction

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Brief History

Jefferson County has always had a strong farming tradition which has been kept alive by various organizations working to both preserve farm land and to help keep our farmers farming.

Shortly after Katherine Baril retired as Director of the Washington State University Jefferson County Extension, she was asked to give a presentation on food and farm issues to the Jefferson County Planning Commission. That presentation, given at a public meeting on March 2, 2011, was part of the Planning Commission's review of the county's comprehensive plan and unified development code (UDC), in preparation for the 2016 periodic update required by Washington State's Growth Management Act. Following Ms. Baril's presentation, Planning Commissioners expressed their desire to recommend changes to the comprehensive plan that might help farms and farmers succeed.

As a result of planning commission interest and building on the foundation of previous efforts, Citizens for Local Food (CLF) formed as an ad-hoc, all volunteer committee to encourage the Commissioners' continued interest in and appreciation of local farming needs and issues. Group members came together from across the county and have spent many hundreds of hours in the last two years on this effort. CLF adopted the mission statement, "In service to the people of Jefferson County to create a local, secure and just food system that strengthens our community, ecology and economy" and identified four projects in the CLF action plan:

1. develop a food policy resolution
2. undertake a comprehensive survey of farms in East Jefferson County[1]
3. conduct a series of community conversations to get more people talking about food issues
4. author a study and report entitled, "Can Jefferson County Feed Itself?," based on a similar project done in Okanogan County's Methow Valley.

An Iterative Process

The Planning Commission encouraged the collaborative efforts of developing a "Food Policy Resolution" as a first step. It was quickly realized that this effort was premature without the guidance of food producers themselves and it was agreed that this effort would be tabled until such guidance was available. In light of this development, CLF saw the agriculture survey as the logical next step. The purpose of this endeavor was to draw a comprehensive picture of current farming conditions with data and analysis compiled in a report to inform and guide our county's next steps in farm preservation and farmer encouragement.

[1] For those unfamiliar with Jefferson County, geographically it stretches from the shore of the Pacific Ocean on the west to the shores of Admiralty Inlet and Hood Canal, both part of Puget Sound, on the east. Dividing Jefferson County is a huge, roadless expanse of Olympic National Forest and Olympic National Park. The east end is more populous and dubbed East Jefferson County, while the western portion is often referred to as "the West End." This survey focused entirely on the more densely populated East Jefferson County.

Anyone with a passion for CLF's mission was (and is) welcome to actively participate. As new skill sets were needed along the way, new volunteers joined the effort. A significant factor in the success of bringing the farm survey to fruition was an informal agreement amongst diverse CLF members to be unified in every decision. By this "unanticipated consensus process," members not in agreement with majority opinion either expressed willingness to live with the group decision or, if strongly objected to, the group would choose to drop the matter and pursue others.

With quality data now in hand, CLF itself might serve as an organizational platform from which a Food/ Farm Policy Council could grow and which might then develop a food policy resolution for the Planning Commission's consideration.

Who is a Farmer?

Our initial task was to develop a list of active farms in East Jefferson County starting with data from both the Jefferson County Conservation District and WSU Extension. This list was refined over time. Inactive farmers were deleted from the list, while low-profile or previously unrecognized farmers were added. For survey purposes, we decided to define a farmer as someone who had the intent of commercial farming, who had clear access to productive farmland, and had earned at least $100 from their farming efforts. Our final list was refined to include eighty-seven (87) active farms in East Jefferson County.

Some may consider this selection criterion overly inclusive since, for example, the U.S. Department of Agriculture uses a minimum income standard of $1,000 per year. Our reasoning for a less rigorous standard was that in preceding years a number of new farmers had attempted to start commercial operations and our desire was to report challenges faced by newcomers as well as those facing established farmers.

A Note about Shellfishers

Initially our intention was to include shellfish farmers in this survey. After consulting with many shellfish farmers, however, it was agreed that this important element of Jefferson County's agricultural producers would require a separate survey tailored for their unique operations and needs.

Crafting the Survey

The survey was intended to provide a strong data base from which the planning commission could develop suggestions for revisions to the comprehensive code, as well as offering data sets that would help a future food/farm policy council to establish and act on their mission.

Crafting the survey itself took a significant amount of time. As many questions were highly sensitive by their nature, we knew we would need to guarantee absolute anonymity to each farmer in order to elicit the information we needed. We wanted to be sure no single farmer's answers could ever be tied to their personal identity.

Ensuring this complete confidentiality required very specific procedures for survey conduct, tabulation and reporting. Training for volunteer interviewers and data entry help was required to accomplish this strict confidentiality. Farmers were also promised first review of data. (This presentation occurred at an event in September, 2012.)

A "draft final" survey was ready to be field tested by the end of November, 2011. It consisted of twenty (20) pages, with an additional "addendum" page. This addendum, on which farmers were asked to identify themselves (separate from the survey itself), consisted of questions that required further contact, i.e.

assessing their interest in such things as: collective storage for crops, equipment sharing, assistance needed (or offered) for marketing, etc.

Six (6) local farmers or persons closely aligned with farming were asked to participate in critiquing the survey questions which allowed us to refine the survey with additional questions, revise wording on some and remove others. We also learned that each survey would require an average of 90 to 120 minutes to complete. Given the time required by each farmer to adequately complete the survey and in order to ensure a good response, we decided that trained volunteers would meet with farmers in person to conduct the surveys.

Survey Response Rate

Of the eighty seven (87) farmers whom we identified as belonging in the sample, eighty (80) eventually responded to a phone call. Of these, 57 completed the survey, for a response rate of 71%. This response is an impressive rate of return for what farmers were told would be an hour and a half, in-person interview. We believe it represents our farmers' strong desire for their voices to be heard and their stories told.

Funding

No government funds were used in completing this survey or report. The Jefferson County Pomona Grange (comprised of Chimacum, Quimper and Rhododendron Granges), Local 20/20, and CLF committee member donations covered all expenses, which amounted to less than $500.00.

Section II.
Who is Farming in Jefferson County?

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This section will describe: who is living on East Jefferson County's farms, where those farms are located, how they are owned, and what the housing conditions are. We will also explore who works on the farms, and some of the problems farmers encounter in finding and providing for workers.

It should be noted that we only interviewed one person to represent each farm, and asked that the principal operator complete the interview, even though up to five other family members might be active in the farm operation. So, while the data may not accurately reflect the total numbers of men and women actually working on our farms, it does reflect ownership.

Who Lives on the Farm?

The respondents range in age from 22 to 89. Overall, the sample included 23 women, nearly half of the total (42%, Figure 2.1). The majority of our farmers (65%) are between the ages of 50 and 79. More farmers over the age of 50 are men (61%), and tend to have owned their farms for a longer period of time (Figure 2.2), especially in the 60-69 year age bracket . The second large group of farmers (20%) is in their 30's; women make up nearly half of this age group. This younger group of our farmers has been working on their farms for an average of less than10 years.

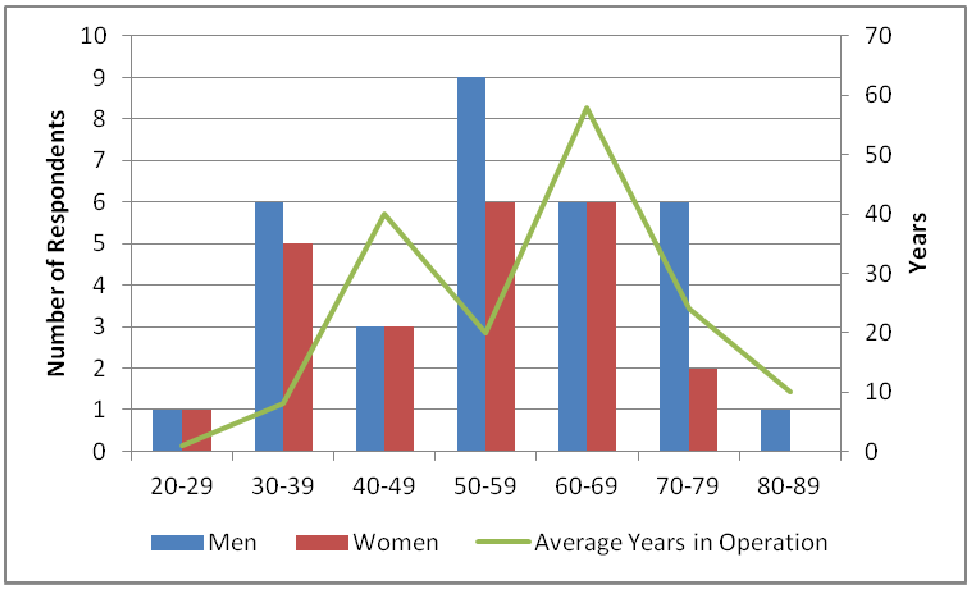
Figure 2.1 Range of Farmer's Ages Showing Breakdown by Gender and Average Years of Operation of Farms

Age Range	All Farmers		Men		Women		Average Years in Operation
	Count	Percent	Count	Percent	Count	Percent	
20-29	2	4%	1	2%	1	2%	<1
30-39	11	20%	6	11%	5	9%	8
40-49	6	11%	3	5%	3	5%	40
50-59	15	27%	9	16%	6	11%	20
60-69	12	22%	6	11%	6	11%	58
70-79	8	15%	6	11%	2	4%	24
80-89	1	2%	1	2%	0	0%	10
Total	55	100%	32	58%	23	42%	

Two of 57 respondents did not report ages.

One curious aspect of the age range data was the paucity of farmers in their 40's - note the significant dip in the chart for that age range - although these farmers have also owned their farms for a longer period of time (Figure 2.2).

Figure 2.2 Distribution of Age and Gender Relative to Years in Operation



One of the more interesting details in our data is the academic achievement of the group. All 57 respondents answered this question, and 81% have college or post-graduate training (Figure 2.3). By and large, our farmers are a well-informed, sophisticated group.

Figure 2.3 Highest Educational Degree of Primary Survey Respondent

Highest Education Level	Count	Percent
< 12th Grade	1	2%
High School	10	18%
College/Vocational	26	46%
Post-Graduate	20	35%
Total	57	100%

Where Are the Farms?

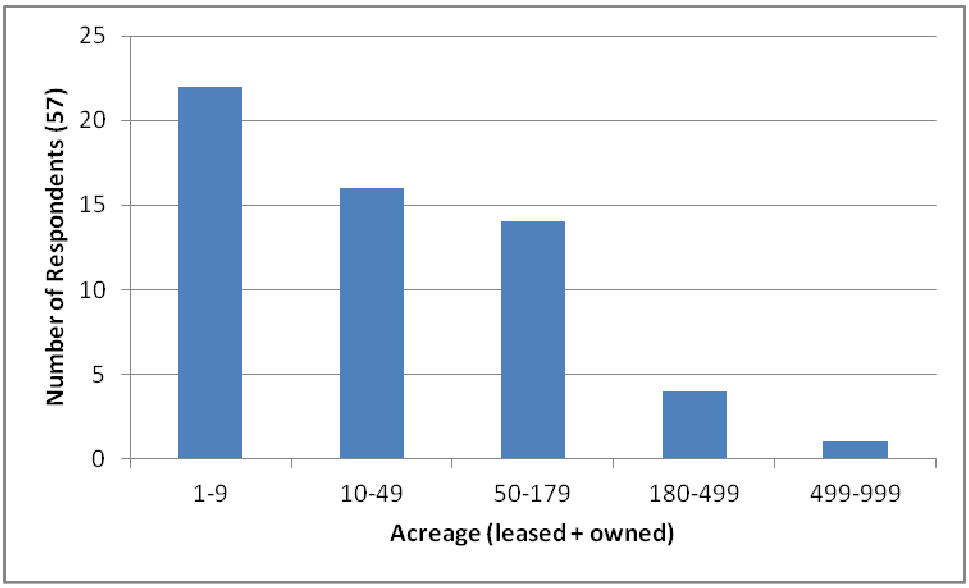
Of the 57 farms surveyed, the largest single group is in Chimacum and Center Valleys, along Chimacum Creek and its tributaries (Figure 2.4). Overall, the majority of our farms, nearly two-thirds (64%), are located in "South County," Chimacum, Quilcene, Brinnon, Port Ludlow, and Coyle. (The West End was not surveyed.)

Figure 2.4 Location of Farms

Location	Count	Percent
Brinnon/Quilcene	11	19%
Chimacum/Center Valley	20	35%
Port Townsend	7	12%
Marrowstone	5	9%
Discovery Bay/Cape George	5	9%
Port Ludlow/Coyle	5	9%
Other	4	7%
Total	57	100%

The average farm size is 67 acres, but there is a very large size range (Figure 2.5). Exactly two-thirds of farms are less than 50 acres, while 22 of those (39%) are under 10 acres. The size of farm varied by the type of produce (Section 3) as well as other factors.

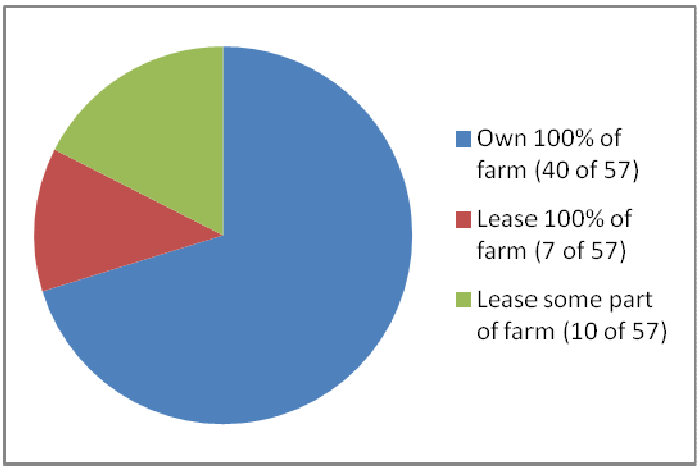
Figure 2.5 Range of Acreage of Farms



Do Farmers Own or Lease Their Land?

Farm ownership is mixed, with most farmers (70%) owning 100% of their land, and only a few (7) who lease 100% of the land they farm (Figure 2.6). Twenty-five farmers (45%) said they would like to farm more land.

Figure 2.6 Distribution of Farmers Who Own and Lease Land



What Are the Housing Conditions on the Farm?

Living conditions on farms appear to be generally adequate. Four of five farmers responding to this question (80%) reported that they have adequate housing for their families (Figure 2.7). Ten farms currently provide housing for workers, while 18 farmers said that they would like to provide housing for workers in the future. Fewer farmers reported providing accommodations for guests.

Figure 2.7 Results of Housing-Related Survey Questions

Housing Summary	Count	Percent	Total Answered
Farmers with Adequate Housing	44	80%	55
Currently Provide Housing for Workers	10	19%	52
Would like to Provide Housing for Workers	18	38%	47
Currently Provide Guest Accommodations	2	4%	54
Would like to Provide Accommodations for Guests	11	23%	47

9 people mentioned that cost of housing was a problem.

Who Works on the Farm?

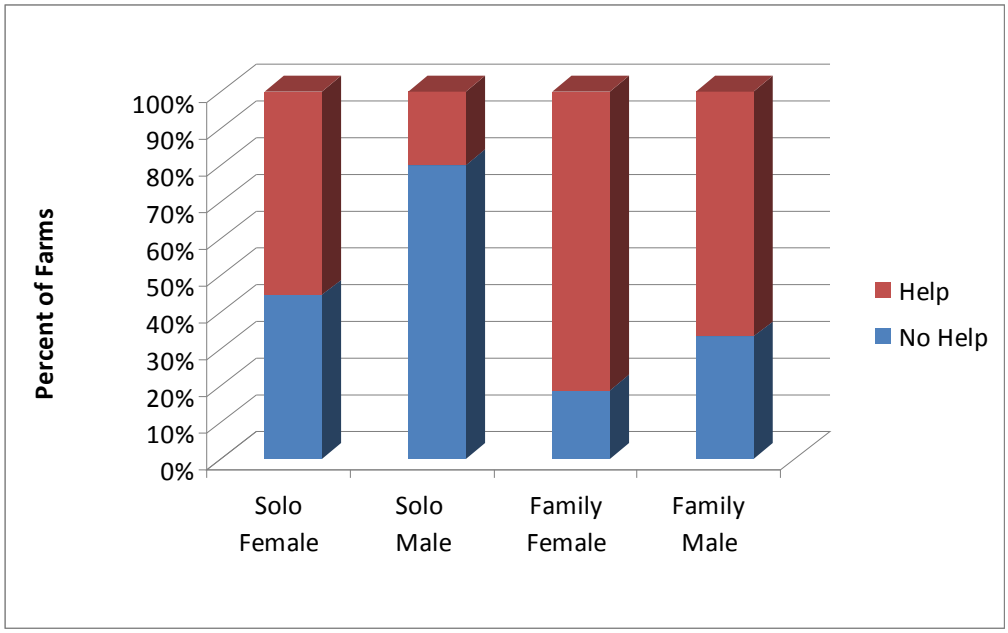
One quarter of the 57 farmers are solo farmers (Figure 2.8). Interestingly, nine of these solo farmers are women. Forty-three farms have two or more family members active in farming, with seventeen having three or more family members involved (30% of the total family farms). Of these family-involved family farms, a much higher proportion are operated by men.

Figure 2.8 Total Numbers of Workers for Solo and Multi-Family Owned Farms

Category	Sole Owners			Multi-Family Owned			Grand Total
Gender	Total	Male	Female	Total	Male	Female	
Count of Survey Respondents	14	5	9	43	27	16	57
Sum of Family Workers	14	5	9	115	70	45	129
Sum of Hired Workers	4	1	3	84	47	37	88
Sum of Interns	1	0	1	36	11	25	37
Sum of Barter Workers	4	0	4	48	33	15	52
Total Workers	23	6	17	283	161	122	306

A closer look at the data shows that four of nine solo women operators utilize help on their farm, while only one of four solo men farmers do so. Of the family farms headed by women, eleven of sixteen utilize non-family workers, while twenty of the twenty-seven male-headed family farms utilize non-family workers.

Figure 2.9 Use of Farm Labor



One might conclude that solo male farmers tend to "go it alone," while solo female farmers are nearly twice as likely as men to employ assistance. It would be interesting to see in what ways this trend influences their productivity and profitability.

Where do these farmers get their help? Twenty farms use only family labor. Of the remaining farms, twenty-two hire workers, seventeen use workers who barter their time for products, and nine have farm interns. (Some farms use more than one kind of additional labor.)

Stated another way, a grand total of 306 people work on the 57 farms surveyed (Figure 2.8). Broken down by category, 129 workers are family members (42%), 88 workers are hired hands (29%), 52 workers are bartering their labor (17%), and 37 workers are farm interns (12%).

What Labor Issues do Farmers Face?

Farmers shared their concerns and problems in finding and maintaining an adequate supply of labor in a number of open-ended questions. Some of the things they told us are:

- It's difficult to pay a fair wage.
- It's difficult to train for level of organic activity required.
- I can't afford more help.
- I need young, strong labor to build infrastructure.
- Need to take on more labor and offer a place to grow their own food.
- Need more berry pickers during the season.
- WWOOFers are often not motivated. (Willing Workers on Organic Farms)
- There are lots of health code issues with the county.
- The county has made it difficult to have housing.
- There's a problem with regulations forbidding child labor.
- Good strong local workers are hard to find.
- We need more housing to grow the intern program.

Summary

There is a scattering of farms in Port Townsend, on Marrowstone Island, and on both sides of Discovery Bay with the majority of East Jefferson County farms in what is referred to as "south county," that is, Chimacum and south. Most of our farms are relatively small by state and national standards, less than 50 acres, with a significant number less than 10 acres. Most farmers own the land they farm, and some lease additional land. Many would like to farm more land than they do.

Housing is adequate for a large majority of farm families though some cited housing costs as an issue, and many said they would like to provide housing for workers. The majority of farms have more than one worker, including family members, hired hands, persons who barter their labor, and farm interns (in order of frequency). Farmers face a number of labor problems, including unavailability of suitable local help, various county codes, and lack of adequate affordable housing on the farm or in the area.

Our farmers tend to be older and male and are operating family farms that have been active for a long time. However, a significant younger group, beginning their farming in the last ten years, is emerging, and they are more likely to be female. This trend offers those with an interest in preserving farm land by preserving farmers with great opportunities in finding innovative ways to transition farms from one generation to the next.

Section III.
What are They Producing?

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Two of every five farms in our survey produce livestock and livestock-related products including hay and pasture. Approximately half of the remaining farms produce crops and crop-related products, and the other half produce a combination of the two. Livestock farms are larger (more acreage), and generally have been in operation longer than crop-based farms. Both livestock-based and crop-based farms sell value-added products, although twice as many farms that include crops in their production mix have a value-added component.

What We Asked

We asked the farmers what they produce and how much of each product per year. We listed a variety of options, including a special category for value-added products, and also had an 'Other" category.

Farmers reported the amount produced in a wide variety of units. For example, 20 farmers reported that they produce hay in varying units i.e. bales, tons, acres, pounds, and dollars. Therefore, we were not able to summarize, by product, how much was produced.

Based on guidance from the U.S. Agricultural Census, we grouped the results by the categories of Livestock and Crops. Five categories were created for each reported product:

- Livestock and livestock-related
- Livestock-based value-added
- Crop and crop-related
- Crop-based value-added
- Miscellaneous value-added

The definition of a value-added product[2] (VAP) is "a change in the physical state or form of the product (such as milling wheat into flour or making strawberries into jam)...; the production of a product in a manner that enhances its value...; or the physical segregation of an agricultural commodity or product in a manner that results in the enhancement of the value of that commodity or product." So for example, our categorization classified fiber, fleece and wool as livestock-related products, but "knitted products" as a crop-based VAP.

We also asked farmers if all or a portion of their farm produced VAPs, and if so, what percentage of their products was value-added. Other value-added production questions included: what types of processing facilities would they need for their current or planned operations; what is the approximate annual gross dollar value of their value-added production; and if they were not already producing value-added products, if they were interested in learning more about VAPs. Finally, we asked if they had any comments about regulatory changes needed to make VAP production possible.

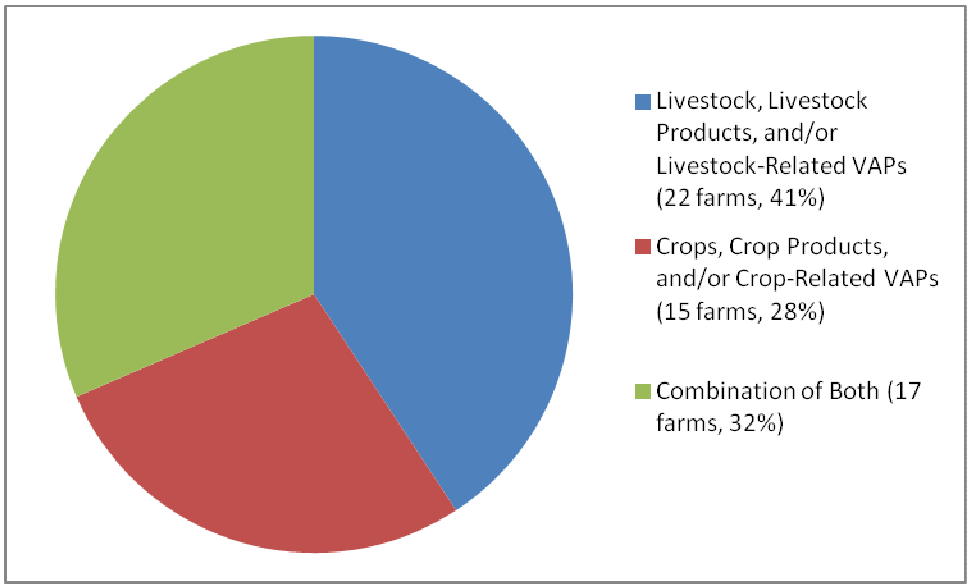
What Farmers Said

The largest group of surveyed farms produce primarily livestock, livestock products, and/or livestock VAPs (41%, Figure 3.1). We included farms that produce mostly livestock in addition to hay or pasture as belonging in the livestock category. The most commonly reported livestock-related product (other than hay) was beef (14 farms), followed closely by eggs (13 farms), and poultry (12 farms).

[2] http://www.agmrc.org/business_development/getting_prepared/valueadded_agriculture/articles/usda-value-added-ag-definition

The same number of farms reported producing pigs (9 farms) and sheep (9 farms). There is some overlap in categories for example: 7 farms reported producing fiber; 5 farms reported producing 'dairy;' and five farms reported goats as products. Cheese was the most commonly reported livestock-based value-added product (3 farms). Other livestock-related VAPS included soap, yarn, and knitted products.

Figure 3.1 Distribution of Farms that Produce Livestock, Crops, or Combination of Both



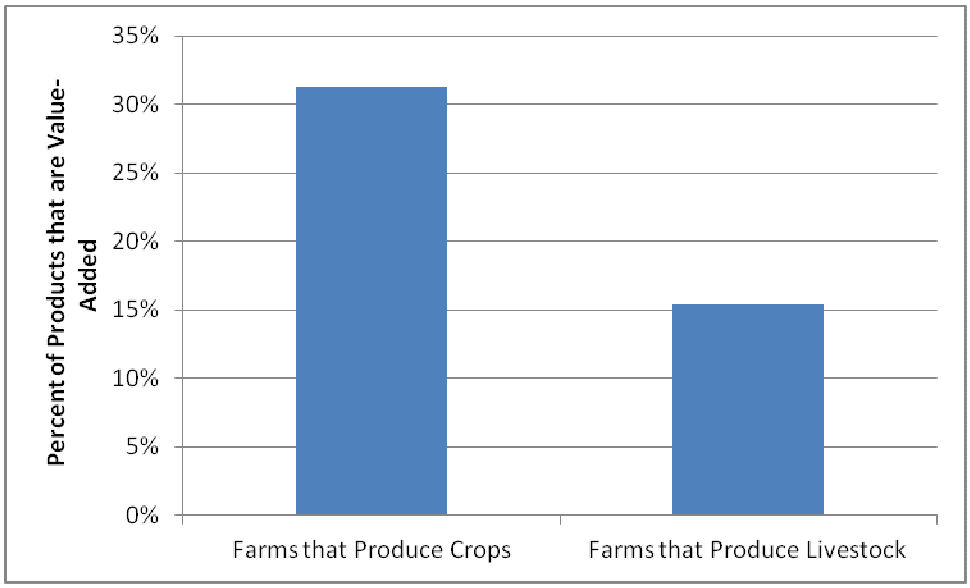
Slightly more farms reported producing both livestock- and crop-based products (32%) relative to those reporting crops alone (28%, Figure 3.1). The most commonly reported crop-based products include: berries (31 farms), fruit (30 farms), vegetables (23 farms), and garden products such as plant starts (16 farms). Almost all reported value-added products were crop-based (16 farms), including a wide variety of products (jams, cider, salsa, vinegar, wreaths, kefir, spice-based products). The production of honey was reported by three farms.

Value-Added Production

When farmers were asked if they produced VAPs, almost half said they did (26 of 53 farms). In fact, eight of those farms reported that 100% of their products were value-added. However, farmers reporting 100% VAPs included in their list of products: apples, cattle, eggs, goats, hay, pasture, vegetables, etc. So, the definition of value-added may vary or have been used differently by each respondent.

We calculated the percent of VAPs produced by farms using our classifications described above, by comparing the number of products that are value-added relative to the total number of reported products. Of the farms that produce crops (32 farms), 10 of them included value-added products in their product strategy (31%, Figure 3.2). For those farms that produce livestock (39 farms), 6 farms report value-added products (excluding hay and pasture; 15%). Note that the farms that produce both livestock and crops are included in the calculations presented.

Figure 3.2 Percent of Products that are Value-Added Relative to the Total Number of Reported Products for Crop and Livestock-Based Farms



When asked about equipment facilities, the farms that currently produce VAPs most commonly reported kitchens (six people mentioned commercial or certified kitchens); butchering/slaughtering/poultry processing (4 farmers); and storage facilities (3). Of the 27 farms that reported they did not currently produce VAPs (51%), 11 farms said they were considering or interested in value-added production. Types of processing facilities needed included certified kitchens and USDA-approved meat-processing facilities. Regulatory issues are important to farmers for VAP production. Some farmers (both those who currently produce VAPs and those who don't) raised issues about:

- Restricted regulations for slaughtering
- Being able to use home kitchens for small batch production
- Uncertainty about cottage law, certified kitchens, and small-scale production
- Raw milk
- WSDA certification allowing meat sales, not just USDA
- Zoning

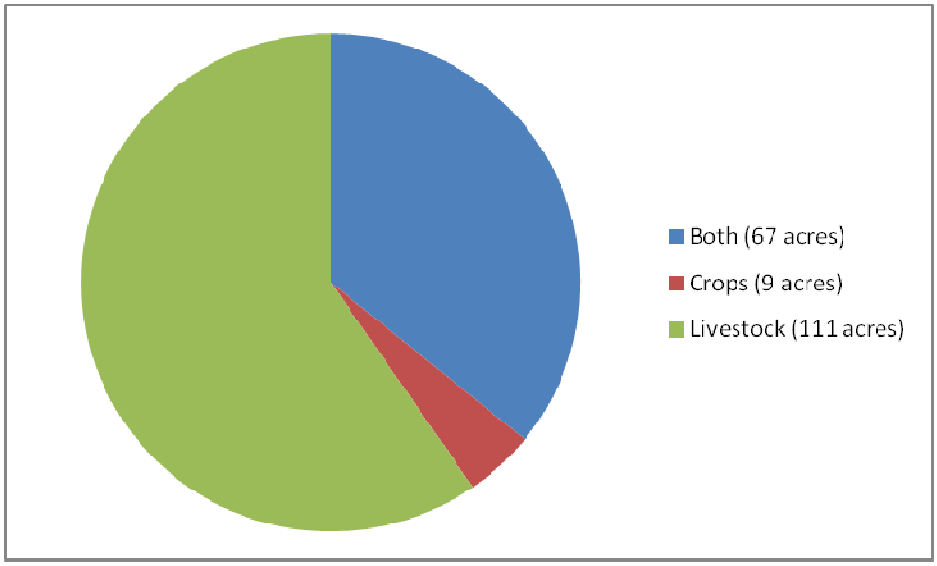
And one farmer said, "Our level of production will likely fall under cottage foods act regulations for which we are thankful."

Production Strategies

We were interested in comparing the livestock vs. crop-based product strategies with other information we received from the farmers. Although no age-based associations were correlated with product strategies, there was a slightly higher association of females with livestock-based operations (55% of livestock only farms were associated with a female who took the survey), while only one-third of the crop-only farms were associated with a female farmer.

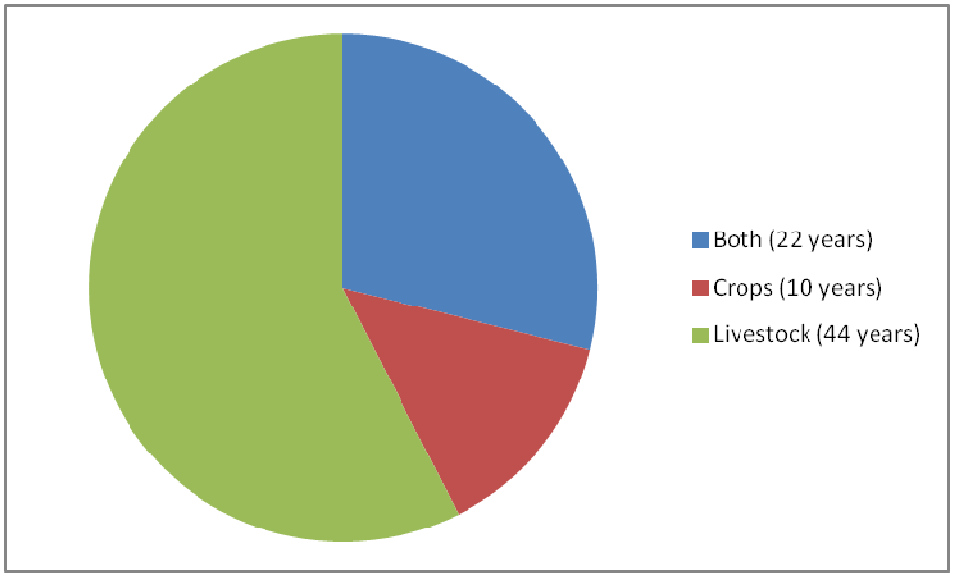
Not unexpectedly, livestock-based operations are associated with much larger numbers of acres (Figure 3.3), with the average farm size for livestock-only farms at 111 acres. The average size for crop-only farms is 9 acres (Figure 3.3).

Figure 3.3 Average Farm Size, in Acres, for Livestock-Based, Crop-Based and Combination Farms



Livestock-based operations also are associated with farms that have been in operation for a longer period of time (Figure 3.4). Livestock farms, on average, have been in operation for four times as long as long as crop-based (only) farms.

Figure 3.4 Average Number of Years that Crop-Based, Livestock-Based and Combination Farms Have Been in Operation



Summary

In summary, 41% of the farms in our survey produce livestock and livestock-related products including hay and pasture. Approximately one-third of the remaining farms produce either crops and crop-related products, or a combination of both. Livestock farms are larger on average, and overall have been in operation longer than crop-based farms. Both livestock-based and crop-based farms sell value-added products. As a fraction of the total product mix, twice as many crop-based farms sell value-added products as livestock-based farms.

Section IV.
Who is Buying What Our Farmers Produce?

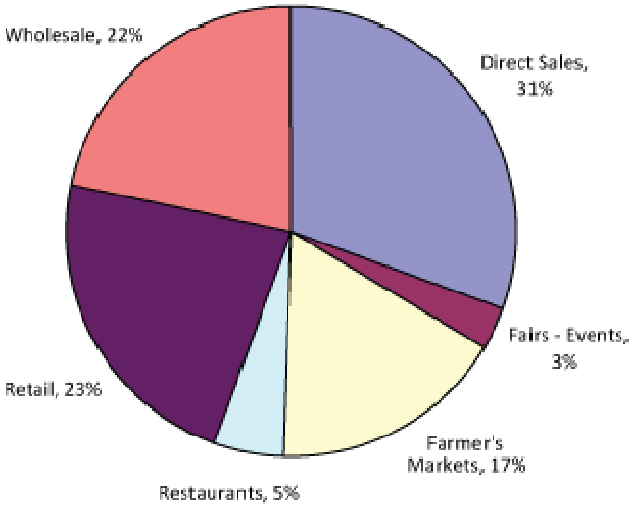
Section IV. Who is Buying What Our Farmers Produce?

After taking a good look at what our farmers are producing, the ten questions we next asked were designed to find out who purchases what they produce. Farmers shared freely with us and in order to gain an understanding of this large set of data we organized it into "dominant markets" or the types of sales reported; by percentage of sales dollars by county, and farms that grouped into similar sales strategies. The market and marketing strategy information shows that our farmers work very hard to sell their products. Some of the details may be surprising and point to possible future market endeavors.

Types of Sales

The main types of Jefferson County farm sales reported in this survey were analyzed by grouping them into their dominant markets i.e. their main sales outlets. These sales outlets clustered into six different groups depicted as the percentage of total sales dollars on the pie chart below:

Figure 4.1 Dominant sales outlets for Jefferson County farmers



Numbers reflect the percentage of all reported sales dollars from 46 farms, totaling $1,974,369.

Types of Direct Sales included:

- On-site farm stands
- Internet sales
- CSA programs
- Sales from tourism and class visitors
- Sales to individuals and other farms
- On-farm feed sales
- Back-of-truck sales

Types of Wholesale Outlets identified:

- Animal and meat brokers
- Seed distributors
- Schools
- Landscapers

Retail Markets Listed:

- Local groceries: Chimacum Corner Farmstand, PT Food Co-op
- Other Jefferson County outlets: Cenex, Key City Seafood, Uptown Nutrition, World Peace Produce
- Neighboring county outlets: Dungeness Creamery, Nash's Farm Store, Peninsula Foods, PCC, Red Rooster Grocery and Sunny Farms[3]

Farmer's Markets:

- Port Townsend
- Chimacum
- Port Ludlow
- Quilcene
- Silverdale

Restaurants Purchasing Local Farm Produce:
Farmers listed eight local restaurants that purchase produce along with some local caterers. Those restaurants include (in alphabetical order): Ajax Café, Better Living Thru Coffee, Bon Appétit, Burrito Shop, Farm's Reach Cafe, Renaissance Café, Snug Harbor, Sweet Laurette's and The Public House.

Fairs and Special Events:
Farmers listed eight different fairs, shows, conferences or special events at which they attended.

Figure 4.2 Percentage of Sales Dollars by County and by Sales Outlet Type

Sales Outlet Type	Dollars	Clallam	Island	Jefferson	County King	Kitsap	Other	Total
		Percent of reported sales dollars						
Direct Sales	607,750	0.00	0.00	30.22	0.00	0.00	0.56	31%
Fairs - Events	58,395	0.00	0.05	0.81	0.09	0.04	1.96	3%
Farmer's Markets	345,635	0.00	0.00	16.30	0.65	0.40	0.00	17%
Restaurants	93,864	0.03	0.00	4.73	0.00	0.00	0.00	5%
Retail	444,574	2.61	0.00	18.33	0.12	0.08	1.37	23%
Wholesale	427,150	0.00	0.00	2.82	0.00	0.00	18.82	22%
Total	1,974,369	2.64%	0.05%	73.21%	0.86%	0.53%	22.71%	100%

Numbers reflect the percentage of all reported sales dollars from 46 farms totaling $1,974,369. Not all farms interviewed reported both gross income and sales outlet percentages. The numbers may differ slightly here from the following sections due to different total numbers of farms.

The majority of sales dollars are generated within Jefferson County (73%). Wholesale sales to brokers and distributors with product moving out of the local area make up the bulk of the remaining sales dollars (18%). Retail sales in Clallam County, distant trade fairs and shows and farmer's market sales in King and Kitsap Counties are other major sources of sales dollars.

[3] The named outlets are comprehensive from our survey results. Additional outlets may do business with farms that did not participate in the survey process.

Sales Strategy Groups

The second type of analysis of farmers' marketing data studied two questions:

1) Did the farm's specialize their marketing? or
2) Were the farms generalists, marketing anywhere and everywhere?

Three sales strategy groups emerged as depicted in Figure 4.3.

Figure 4.3 Sales Outlet Strategies

Sales Strategy	Count	Percent	Sales Outlet Type						Jefferson County Sales
			Direct Sales	Fairs - Events	Farmer's Markets	Restaurants	Retail	Wholesale	
			Average percent of sales						Percent
Direct Sales Specialist	20	40%	79%	0%	4%	0%	2%	15%	84%
Farmer's Market Specialist	9	18%	12%	2%	70%	1%	7%	8%	76%
Retail-Diverse Generalist	21	42%	20%	7%	13%	9%	42%	10%	83%
Total	50	100%	42%	3%	19%	4%	19%	12%	82%

For sales strategy grouping we used a statistical procedure called 'hierarchical clustering' to place farms into groups based on quantitative distribution of their sales at different outlet types. This program calculates how similar farms are in the blend of market outlets they use. If two farms share exactly the same mix of sales outlets and the same percentages of sales, then they will be 100% similar. If they don't share any outlets they will be 0% similar. Then the program grouped farms together based on their similarity in sales outlet use. We limited the final number of groups to those with more than 6 members. We then calculated the average percent sales at different outlet types and average percent Jefferson County sales that characterized each group. The total percentages of outlet sales are based on just the percentages of sales by each farm, not the percentage of sales dollars as in Figure 4.1.

The farms' marketing strategies clustered into three groups:

1) Specializing in Direct Sales (40%): Direct, wholesale or unclassified direct sales such as on-site farm stands, CSA's, internet, back of truck, or private sales make up on average 79% of the sales of this group.

2) Specializing in Farmers Markets (18%): Farmer's markets make on average 70% of the sale of this group.

3) Retail-Diverse Generalists (42%) The generalists had a broader list of types of outlets in including restaurants, fairs, events and wholesale with retail representing on average 42% of their sales.

When considering just the percentage of each farm's sales (not accounting for the total dollars involved) Jefferson County sales make up 82% of all sales. The Farmer's Market group has more sales on average in adjacent counties, mainly Kitsap and King Counties. Local Jefferson County sales make up 82% of all sales but just 73% of the sales dollars (see Figure 4.2). Likewise, direct sales make up, on average, 42% of all sales in by our farmers. However, direct sales account for only 31% of sales dollars (see Figure 4.2). On the other hand wholesale sales make up only 12% of sales by our farmers but contribute to over 18% of total sales dollars. Increasing sales to wholesalers - perhaps out-of-county - may help increase the revenues of farms specializing in direct, local sales.

Many comments were collected in the survey from farmers about their marketing issues, including:

- "Price comparisons needed with other commercial outlets, so people can see that cost is not so different. Can we do this periodically to further profitability of local farmers?"
- "No room for growth at current farmers market location; current director is not focusing on growth because there is no more room—need for market board to talk to city officials about another location."
- "Need to get away from issues of control, i.e. $250 farm stand permit. They want to control parking, other farm issues. Why can't farmers sell off their property?"
- "Unclear rules and regs - county says one thing, state says another. Different personnel at county have different answers to the same question."
- "Restaurants prefer to deal with only one farmer to insure consistent supply."

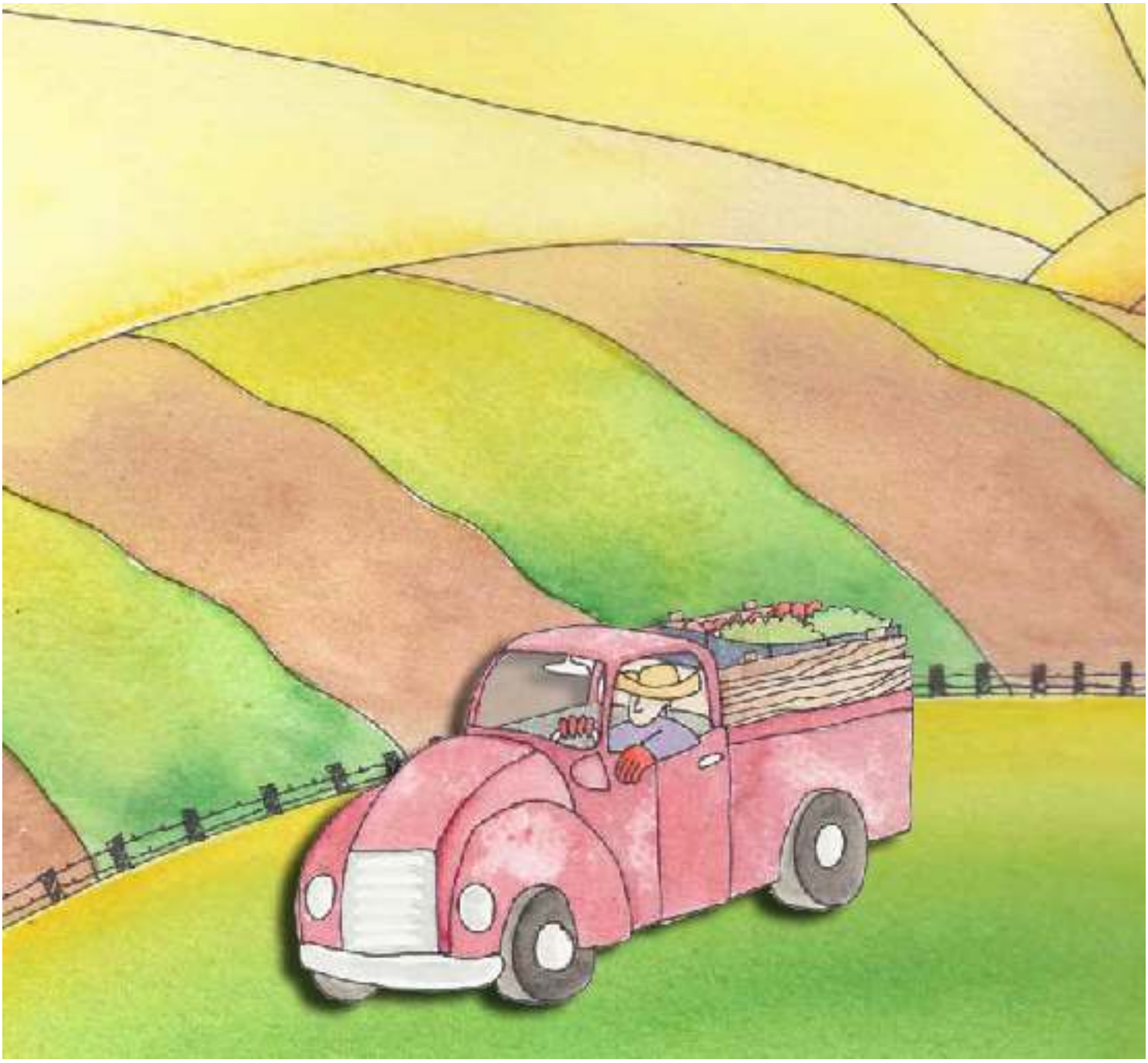
Summary

Given the importance that marketing plays in profitability and sustainability of farm operations (analyzed in great detail later in this report), these marketing facts and figures tell an important story. They show that many of our farmers are working hard to develop as many sales outlets as they can, to stay in business.

Local farmers have identified the need to grow their customer base and to educate them about the benefits of good, locally grown food. They would like help in determining exactly what the price differences are between trucked-in industrial produce and their locally grown meats, vegetables and locally produced value-added products.

And they would like fairly written and administered permit rules. City and county agencies can help support our farmers in many ways and specific steps need to be identified and implemented to keep our farm economy healthy and growing. Growth of our local food system depends on encouragement from our local governments, institutional food buyers, all grocery outlets and individual consumers. It will take "the whole village" to raise a viable new and sustainable food source from here for everyone.

Section V.
Do Our Farmers Make a Sustainable Living?



Section V. Do Our Farmers Make a Sustainable Living?

Overview

In this section we will discuss how much revenue farms take in, how much income they see after expenses, what percentage of their revenue they keep after expenses, and some of the many factors that may influence the economic stability of farms over the longer term.

Money is a sensitive issue for many people to discuss. Due to a variety of reasons, not all of the 57 farmers who were interviewed reported all the data necessary for every analysis in this section. Therefore, the number of farms that reported usable data is stated for each of the analyses described below. However, we believe that the information obtained from these farmers is likely to be a good representation of all the farms in East Jefferson County.

In this section we discuss income in three different ways:

- **Gross Income** is the total revenue of the farm and consists of all the money the farm operation takes in but doesn't account for in-kind trades and barter.
- **Net Income** is the money left over for the farmer after farm operation expenses and wages are paid for hired help.
- **Profitability** is the percentage of the Gross Income that is left over as Net Income. It is calculated as 100% times Net Income divided by Gross Income.

We recognize that many of the personal, emotional and financial benefits and costs of farming are not accounted for with these economic measures. But they do provide an important view into local farms as businesses.

Farmers' Incomes

Gross Incomes

A broad range of gross income (total income before subtracting expenses) was reported for the most recent 12-month period by 52 farms. Gross incomes of less than $ 3,000 were reported by 11 farms (21% of the sample). At the highest end of the spectrum, 8 farms (15% of the sample) reported grossing $100,000 or more. None of our farmers reported gross incomes above $340,000. Income categories reported are listed below:

- 2 farms (4%) grossed $0
- 9 farms (17%) grossed from $1 to $3,000
- 11 farms (21%) grossed from $3,000 to $10,000
- 7 farms (14%) grossed from $10,000 to $20,000.
- 10 farms (19%) grossed from $20,000 to $50,000.
- 5 farms (10%) grossed from $50,000 to $100,000,
- 8 farms (15%) grossed $100,000 or more

As can be seen from Figure 5.1A, gross income is highly skewed toward lower values. An overall average of gross income misleadingly melds together the large number of farms with lower gross income from a smaller number of farms with higher revenues. The calculated average (or mean) gross income was "$44,441." The average value of gross incomes is shown by vertical lines labeled "A" in Figures 5.1A and 5.1B.

A more representative (but less often used) summary indicator for this type of skewed distribution is the median value which shows that half of the gross income values are greater than their median values, and half are less. The gross income median value is indicated by vertical lines labeled "M" in the graphs. Half of the farmers sampled (26 farms) had gross incomes of less than $18,500, and the other half had larger gross incomes.

So, for more detailed analysis we have separated two groups of farmers:

Group A - larger number of farms with generally lower gross incomes (less than $50,000). See Figure 5.1A and 5.1B below

Group B – smaller number of farms with generally higher gross incomes (more than $50,000).

As will be seen in Figure 5.4A below, these two groups of farms have some significantly different descriptive and economic characteristics.

Figure 5.1A Overall Distribution of Gross Income

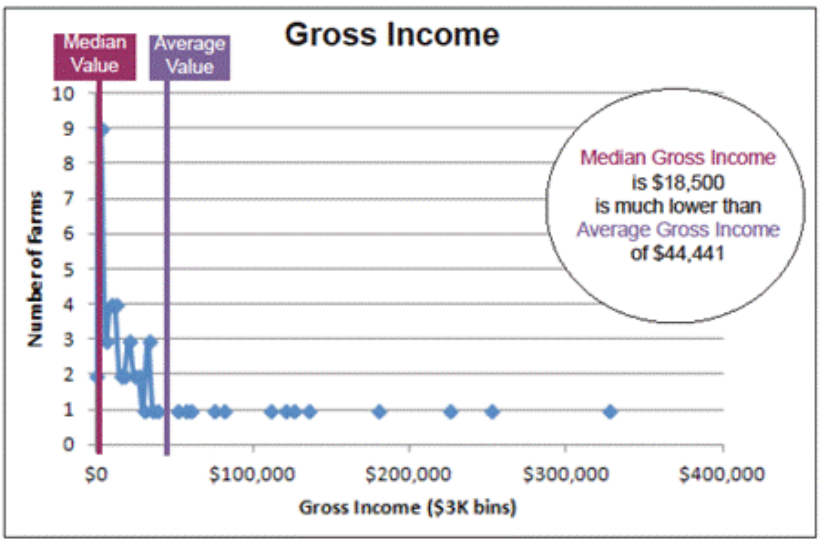
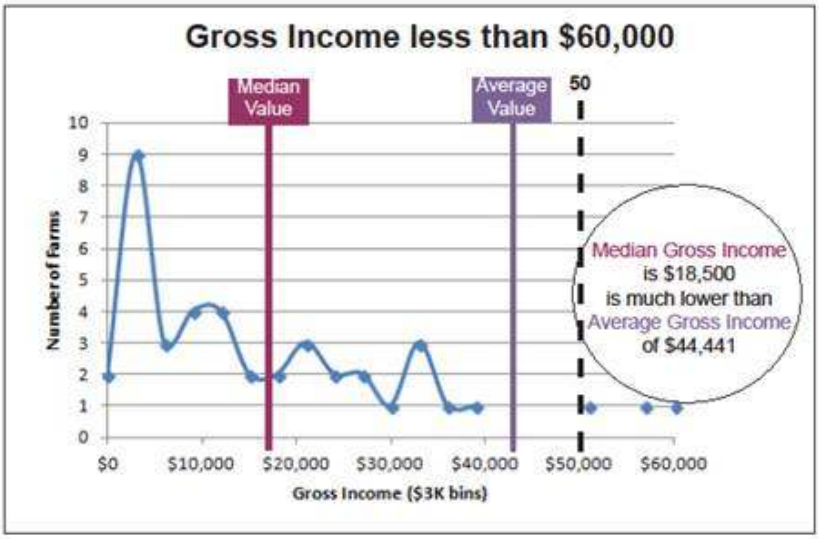


Figure 5.1B Distribution of Gross Incomes Less Than $60,000



In Figures 5.1A and B the horizontal axis is a linear scale divided into sequential bins of $3000 of gross income. The bins are labeled every $10,000. The number of farms that have gross incomes that fall within each $3000 income bin is plotted on the vertical axis. The vertical line (A) is the average gross income value. The vertical line (M) is the median gross income value. Figure 5.1A and 5.1B show different ranges of distribution of gross incomes to enlarge details of the lower end of the range. The figures are based on responses from 52 farms.

Net Incomes

Again, the range of net income (total income after subtracting all expenses) reported was broad. Net incomes of less than $ 2,500 were reported by 20 farms (40% of the sample). At the highest end of the spectrum, 3 farms (6%) reported netting between $50,000 and $85,000. Net income categories reported are listed below:

- 18% (9 Farms) had losses
- 22% (11 Farms) Netted $0 to $2,500
- 14% (7 Farms) Netted $2,500 to $10,000
- 16% (8 Farms) Netted $10,000 to $20,000
- 24% (13 Farms) Netted $20,000 to $40,000
- 6% (3 Farms) Netted $50,000 to $85,000
- None of the farmers reported net incomes above $85,000.

As can be seen in Figure 5.2A, the distribution of net income was also skewed toward lower values like gross income. The calculated average net income was "$8,592." However, half of the farmers had net incomes of less than $1,800.

Figure 5.2A Overall Distribution of Net Income

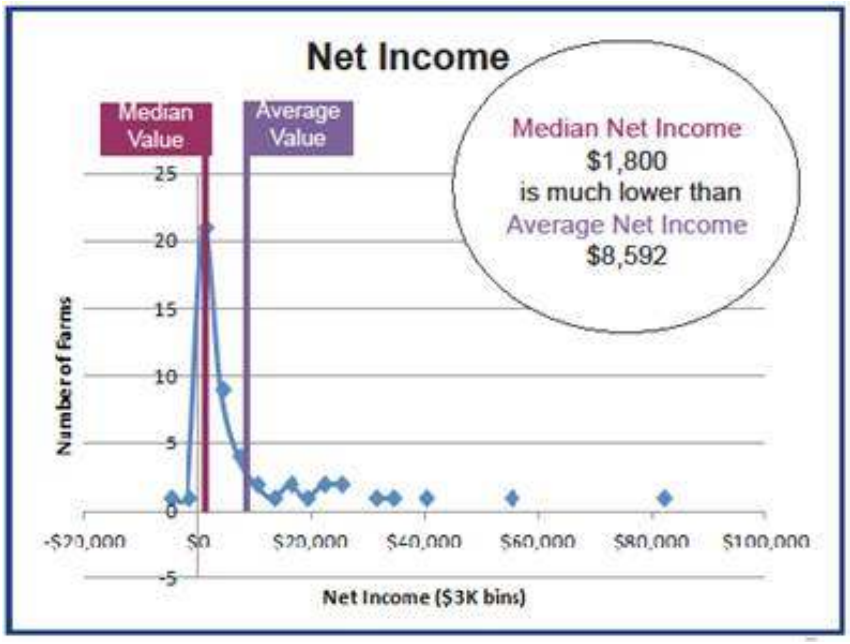
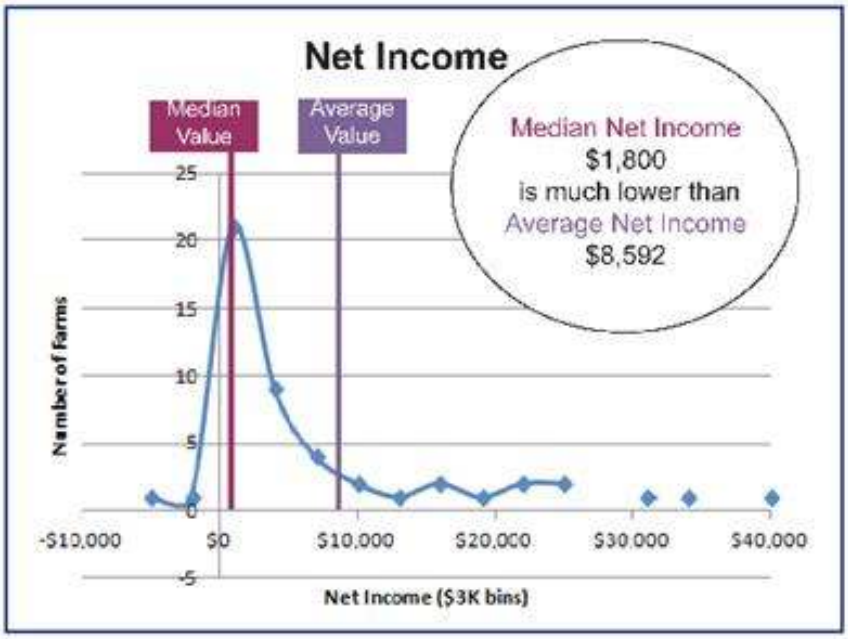


Figure 5.2B Distribution of Net Income Less than $40,000



In Figures 5.2A and B the horizontal axis is a linear scale divided into sequential bins of $3000 of net income. The bins are labeled every $10,000. The number of farms that have net incomes that fall within each $3000 income bin is plotted on the vertical axis. The vertical line "A" is the average net income value. The vertical line "M" is the median net income value. Figures 5.2A and 5.2B show different ranges of the distribution of net incomes to enlarge details of the lower end of the range. The figures are based on responses from 51 farms.

Profitability

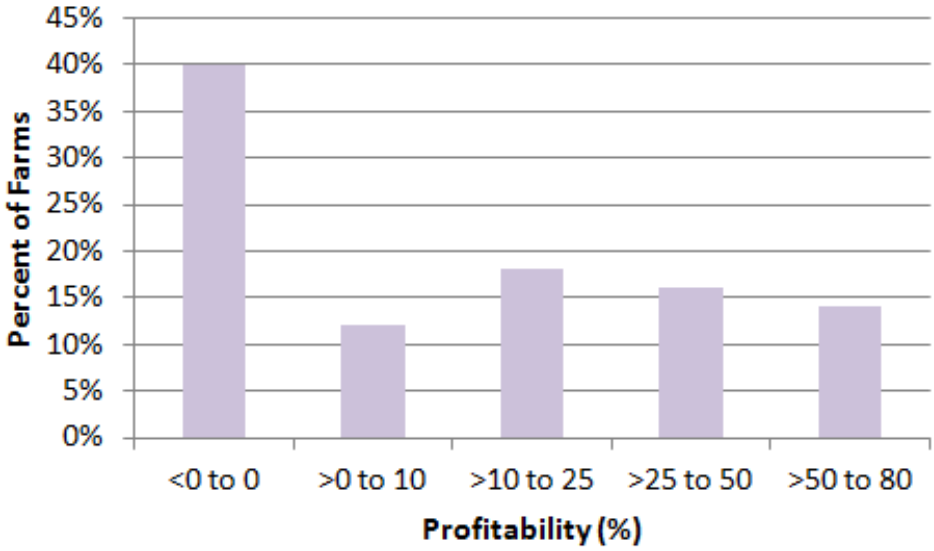
Another way of evaluating farmers' incomes is to examine profitability of farms.

Profitability (or profit margin) is defined as the percentage of gross income (or revenue) that is generated as profit (after expenses).

- 20 Farms (40%) reported no net income or losses
- 7 Farms (13%) reported profitability of 1% to 10%.
- 9 Farms (18%) reported profitability of 11% to 25%.
- 8 Farms (15%) reported profitability of 26% to 50%.
- 7 Farms (14%) reported profitability of 51% to 80%

40% of 51 Jefferson County farmers reported that they either had no profit or had losses in terms of net income. More than half of the farmers (53%) reported 10% or less profitability.

Figure 5.3 Profitability



The vertical axis is a linear scale of the percentages of farms that have profit margins that fall within each of the percent profitability intervals. The horizontal scale (horizontal axis) is a linear scale which is divided into sequential percent profitability intervals. The figure is based on responses from 51 farms.

Two Different Income Groups

The incomes of our farmers fall into to broad groups with somewhat differing economic situations: those with less than $50,000 in revenue per year (Group A) and those with more than $50,000 in revenue (Group B). The two differing income groups also are different in many other aspects summarized in Figure 5.4 below.

Group A tends to be older, have few employees, work less hours, have less investment in farm structures and produce from smaller acreages. They also tend to produce Animal products and specialize in direct sales to customers. Group A farms have a lower median net income of $200, a lower median profitability ratio of 8% and an average five year trend in income of -9%. On Group A farms for every $9.04 of sales they generate someone on that farm worked for about 1 hour and 41 minutes. ($9.04 is the 2012 Minimum Hourly Wage for Washington State.)

Group B farmers tend to be younger, have a larger representation of men, hire more people, have greater investment in farm buildings and structures, and farm larger acreages. These farms tend to produce mixed crop and animal products and have the generalist-retail sales strategy. Group B farms also have larger median net incomes of ~$25,000, median profitability ratios of 14% and a five year trend in incomes that averages +45%. On Group B farms, for every $9.04 of sales they generate, someone on that farm worked for about 32 minutes. They tend to be doing better by the numbers but as one farmer said "its not enough to support a family."

Figure 5.4 Differences Between Farms in the Two Income Categories

	Gross Income Less than $50,000	***Gross Income Greater than $50,000***
How many farms?		
	37	13
Who are they?		
percent older than 60	43%	31%
percent younger than 40	27%	23%
percent female	49%	31%
How intensively are they farming?		
median total hours of labor per year	979 hours	6200 hours
average number of hired workers	1	2
median actively farmed acres	22 acres	102 acres
median square footage of barns, buildings, hoophouses, greenhouses.	2000 square-feet	6800 square-feet
What are they producing?		
products	Animal (48%) Crops (31%), Mix(20%)	Mix (50%) Animal (33%), Crop (17%)
average percent value-added	22%	17%
How are they marketing?		
sales outlet specialization	Direct (46%) Retail (37%), F. Market (17%)	Retail (63%) F. Market (18%), Direct (18%)
average number of marketing practices	5	7
What is their economic return?		
median net income	$200	$25,000
median profit margin	8%	14%
average 5-year trend in income	-9%	+45%
Are their farms economically stable?		
percent that lease some of land	24%	62%
percent that lease all of land	14%	15%
percent that have non-farm income	97%	69%
percent that rely on non-farm income to farm	97%	48%
percent that have zero net income from farming	49%	8%
How much work goes into local products?		
On average, for a $9.04 sale someone on these farms worked for . . .	1 hour 41 minutes	32 minutes

All calculations were based on the 50 farms that reported both gross and net income. They may be slightly different than other similar calculations with a different number of farms. Net income calculations based on 35 farms for the <$50,000 Group and 12 farms for the >$50,000 Group. Definitions of product group are given in Section III and explanations of sales outlet specializations are given in Section IV.

Summary

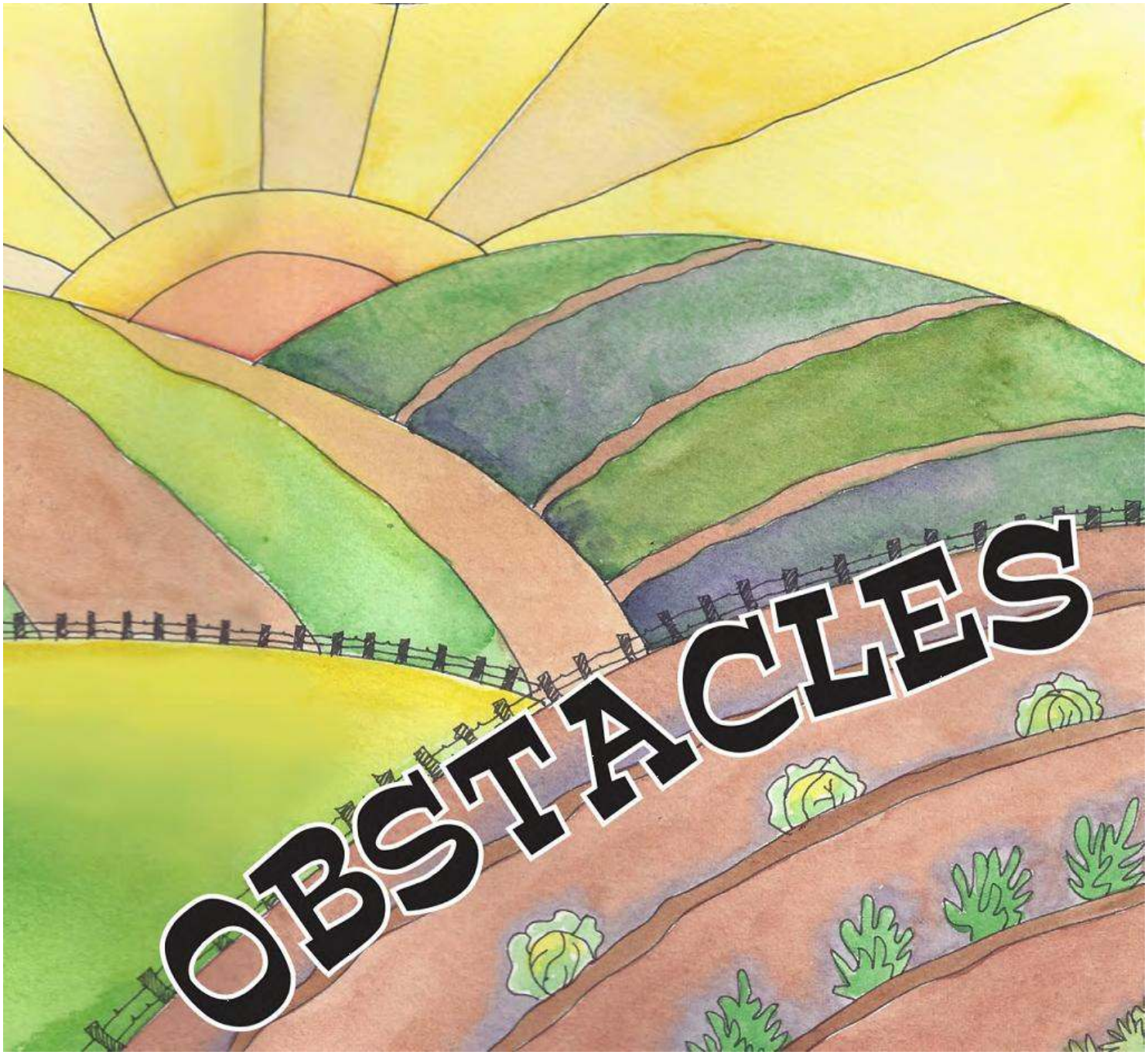
Do Jefferson County farmers make a sustainable living working on the farm?

Unfortunately, that is a complex question to answer because people farm for a variety of purposes and with a variety of business plans and financial situations. We have learned that it is rare for a family in Jefferson County to become wealthy from farming. Half of our farmers had gross incomes from farming of less than $18,500, and 40% of them reported either no profit or losses in net farm income. Only two farms reported a net profit greater than $40,000, and more than half (53%) reported profitability of 10% or less.

The incomes of our farmers fall into to broad groups with somewhat differing economic situations: those with less than $50,000 in revenue per year and those with more than $50,000 in revenue. The larger revenue group tended to be younger, hire more people, have greater investment in farm buildings and structures, and farm larger acreages. They also had median net incomes of ~$25,000, median profitability ratios of 14% and a five year trend in incomes that averages +45%. The group with revenues lower than $50,000 tended to be older, have few employees, work less hours, have less investment in farm structures and produce from smaller acreages. They also have a lower median net income of $200, a lower median profitability ratio of 8% and an average five year trend in income of -9%.

The two groups also differ in factors that may influence long term farm stability. The lower revenue group especially depends on non-farm employment or other sources income: 97% would not be able to continue farming without non-farm support. In the larger revenue group 67% of the farms depend on non-farm income. In Jefferson County the success of the farm economy is linked to the prosperity of the larger community. In both income groups farm stability could be at significant risk if there were serious illness, significant monetary losses, loss of non-farm work, an inability to pass the farm to younger operators or catastrophic events. Yet, despite all of the above issues, our farmers generally remain positively motivated, with 45% expressing that they would like to farm more land.

Section VI.
What Stands in the Way of Our Farmers Making a Sustainable Living?



Section VI. What Stands in the Way of Our Farmers Making a Sustainable Living?

Two questions were asked of our farmers:

"What are the barriers to selling more products in Jefferson County?"
"What are the primary obstacles to making your farming operation more successful?"

The assumption was that these questions would elicit two distinct responses, but we found that the obstacles to greater success were very similar to barriers to greater food sales in Jefferson County.

Barriers to Selling More Products in Jefferson County

Figure 6.1 Barriers to Selling More Products

What are the largest barriers to selling more producst in Jefferson County?	Count	Percent
Lack of Demand	18	38%
Low Profitability	8	17%
Affordability of Land	7	15%
Regulations	6	12%
Lack of Capital	5	10%
Lack of Infrastructure	5	10%
Distance	5	10%
Labor	5	10%
Personal issues (age, childcare, health)	4	8%
Poor farm production	4	8%
Lack of cooperation	2	4%
None	2	4%

Percentages based on 48 farms that answered the question. Multiple answers were possible.

1) Lack of Demand
"Lack of demand" was cited by 38% of those who answered as the biggest barrier to selling more products in Jefferson County. Possible reasons given for this lack of demand were:

- A saturated market for local food
- The need for better educated consumers
- Consumer misperceptions about the value of local food

2) Low Profitability
The second most common barrier, cited by 17% of farmers, was "low profitability." Labor costs and access to capital were listed as contributing to lower profitability. Difficulty in paying better wages was cited as a barrier to hiring more labor as well, further diminishing profitability.

3) Affordability of Land

Lack of affordable land was the next most cited barrier to increased local sales. One respondent said, "We would like to be farming a larger area, but have not been able to find the right arrangement." Limited access to affordable land is a substantial problem given that 45% the farmers who responded said that they would like to be farming more land.

4) Regulations

"Regulations" were the fourth most commonly cited barrier to more local sales. Public health regulations for value-added products, animal transport and local meat processing are seen as particularly problematic. While many areas of regulation were cited as problematic, no farmer suggested a totally deregulated food system. Instead, there were many calls for improvements to the way regulations and fees are established and administered, such as:

- "How about booklets with rules so the farmers don't feel like they are treading through quicksand"
- "Mitigations seem inconsistent or politically based"
- "It is difficult for interns to find legal housing, so regulations should be relaxed to make housing easier to access. It would be nice to know housing was more easily approved"
- "Quit adding on fee structures/requirements. Fees are untenable. Example: More than $200 in
- fees was charged to switch from electric to gas heat in a greenhouse"
- "More clarity within each department, i.e., different answers depending on who you talk with"
- "Make staff's focus be on helping the farmer"

We were also surprised to see that many farmers did not know of the efforts made by Jefferson County government to make the permit process easier for farmers to build agriculture-related, non-occupied structures. We informed farmers about the exemption for permitting such structures created in 2004, and found that only 37% (19 of 52) knew that Department of Community Development staff had developed this new standard.

Obstacles to Success

Below is a wordcloud of all the text in the farmer's answers to the question, "What are the primary obstacles to making your farming operation more successful?" The size of the word is proportional to how often it was used across surveys. As with the responses to the question about barriers to larger local sales, many of the same words appear in the wordcloud, for example: "regulations," "consumer," "demand" and "land." Other interesting words like "sovereignty" and "babysitting" also appear.

Figure 6.2 Obstacles Wordcloud

As shown in Figure 6.3, "lack of demand" is once again cited as the largest obstacle to greater success while both "regulations" and the affordability of land also appear again in farmer's responses.

Figure 6.3 Obstacles to Profitability

What are the primary obstacles to making your farm more profitable?	Count	Percent
Lack of Demand	20	38%
Regulations	16	30%
Lack of Capital	14	26%
Personal issues (age, childcare, health)	12	23%
Fuel Costs	11	21%
Labor	9	17%
Affordability of Land	8	15%
Lack of Infrastructure	8	15%
Water limitations	7	13%
Cost of supplies	5	9%
Prices too low (profitability)	5	9%
Poor farm production	4	8%
Distribution of products	1	2%
Lack of cooperation	1	2%

Percentages based on 53 farms that answered the question. Multiple answers were possible.

The scarcity of affordable land and regulations were recurring barriers and/or obstacles farmers cited. With the low supply of affordable land, and considering the narrow or non-existent profit margin of so many of the farmers, it was interesting to note the level of voluntary critical area protection in place.

The majority of the surveyed farmers (56%) have critical areas on their property. Over three-quarters (77%) of those with critical areas reported that they have made improvements to protect those areas with

an average buffer depth of just over forty seven (47) feet. 88% of those farmers with critical areas have installed fencing, another 17% have used trees or reforestation plans for protection and nearly one third (29%) have built bridges. End for end, the plantings and fencing that the surveyed farmers have voluntarily installed has created almost 18 linear miles of critical area protection, or nearly the distance from the County Courthouse in Port Townsend to the intersection of Beaver Valley Rd. and Highway 104.

Figure 6.4 Voluntary Critical Area Protection

% of Critical Areas Protected	61%
Total Linear Feet of Protection	92,580 feet
Total Miles of Protection	18 miles
Avg. Linear Feet of Protection per Farm	3,858 feet
Avg. Depth of Buffer	47.26 feet

Figure 6.5 Improvements Made to Protect Critical Areas

	Yes		***No***	
	Count	Percent	Count	Percent
Do you have critical areas such as wetlands, streams or lakes on your property?	31	56.4%	24	43.6%
Have improvements ever been made to your land to protect critical areas?	24	77.4%	7	22.6%

Type of critical area protection improvements made	Count	Percent		
Fencing	21	88%		
Trees/Reforestation	4	17%		
Planting of natives	1	4%		
Blueberry Control	1	4%		
Seasonal Controls	2	8%		
Bridges	7	29%		
Culverts	1	4%		
Stock Tanks	7	29%		
Manure Storage	1	4%		
Pond	1	4%		
Solar Pump to Reservoir	1	4%		

Figure 6.5 is based on responses we collected from 55 farms. Improvement type percentages and estimates of critical areas protection are based on the 24 farms that answered yes to both questions at the top of the table.

We were excited to find this level of voluntary stewardship among our farmers. We are far less optimistic about the potential consequence of increased buffers given the likely effect reported by farmers on an expansion of no-touch buffers. Eight farmers said that such an expansion would put them out of business. Another five farmers said that their productive land would be cut at least in half, as one farmer said, "Another reason to not farm; three creeks run through the property." Another farmer was more succinct in describing the likely effect of increased buffer depths on their farm, "It would kill it."

We encourage those agencies with purview over critical area protection to review the county's current water quality in light of the measures our farmers have voluntarily taken. We would also ask that consideration be given to whether additional buffer depth (over the average reported depth of just over forty seven feet) would improve water quality and at what cost to Jefferson County's food economy and security.

A Word about Water

We made every effort to gather as much data as possible about the use of water in farm operations. Despite these efforts we found that we were ill prepared to ask questions during our interviews in a manner as sophisticated as the complicated issue of water use demands. The complexity and wide variability of regulations (unlimited City water use vs. metered use vs. exempt wells, for example) conspired against our earnest efforts to compile credible data on present agricultural water use and future need.

Because the data we did gather is at best incomplete and therefore unsuitable for policy development, we have chosen not to include it in this report. From our experience with the complexity of water use issues, we suggest that this area of concern would be one that a future Food/Farm Policy Council (which must include excellent representation from the food producer community) would do well to study and make recommendations on.

Summary

The most commonly cited problem reported by our farmers is a lack of local demand for their products. For any group interested in the preservation of farms (through the preservation of farmers), expanding the markets, here and elsewhere, for locally produced food would appear to be an effort of high importance. Making the permit process easily understood and developing better communication between farmers and permitting agency staff would likely benefit both the regulator and the regulated. Innovative land use and ownership strategies may need to be tried if farmers are to access the affordable land that a high percentage said that they desire. Lastly, we hope that those crafting regulations concerning critical area protection give serious consideration to the current water quality levels of our streams with a less than 50-foot average buffer depth, as reported. By not mistaking a prescriptive set-back distance as the goal and instead staying focused on the real goal of high water quality, we may avoid the loss of productive farms and of diminishing Jefferson County's food security.

Section VII.
What Can be Done to Strengthen Local Food Production?

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Food producers in Jefferson County represent a diverse set of enterprises with different sets of concerns and different business strategies and goals. Despite the diversity of farms, four main areas of concern emerged repeatedly:

1) Lack of demand by an educated consumer base
2) Poor profitability
3) Need for smarter regulations
4) Need for better access to affordable, quality agricultural land.

The farmers who were interviewed had a good sense of how these issues are all interrelated. We will discuss how the community can better support local food production by looking at how sales can be increased, how profitability can be increased and how farmers think the community can further organize to strengthen local food production.

Increasing Local Sales

Lack of local demand was the most cited barrier to increasing the amount of local food produced and the greatest detriment to individual farm success. Being business-people, the farmers we talked to also have a good idea where they would like to see sales increases.

Figure 7.1 Desired Sales Increases

Sales Outlet	Count	Percent
Direct	11	23%
Retail	11	23%
All Outlets	9	19%
None Desired	7	15%
Restaurants	7	15%
Farmer's Markets	5	11%
Wholesale Distributors	3	6%
Local Sales	3	6%
Out-of-County Sales	2	4%
Fairs and events	1	2%

Percentages based on 47 farms that answered the question. Multiple answers were possible.

The greatest desired sales increases are direct sales at the farm or with CSA programs (23%), increased sales at local retail outlets (23%) and increased sales at local restaurants (15%). Local consumers can support farmers with increased sales by joining CSA programs, looking for local produce at local retail outlets and by asking for local choices at restaurants where they eat. Restaurant managers could also engage further in dialogue with the farming community about how to better promote local menu options and how to meet meal price expectations with local food.

Local food producers are also looking to expand into the value-added product market. Remember from the Products Section that almost half of local food producers sell value-added products and, of the rest, 41% are interested in developing value-added products. Value-added is an area in which smart, local regulations can facilitate increased sales of local food. Farmers had many constructive suggestions for making the permitting process better.

Figure 7.2 Suggestions for Making the Permit Process Better

	Count	Percent
Improve Staff Effectiveness	8	40%
Better Communication, Clarification	6	30%
Relax Regulations	4	20%
More Consistency	3	15%
No Problems	2	10%
Better Access to Staff	1	5%

Percentages based on 20 farms that answered the question. Multiple answers were possible.

Many farmers suggest that simply "making the permit process more effective" and having local authorities "improve staff communication" are the best ways to improve local regulations. Local regulatory staff can do a lot to further coordinate their efforts and communicate details of the current regulations in a clear way that is consistent among staff members.

Farmers also had many suggestions for specific regulatory issues that need attention and potential amendment. Supporting the development of a "portable slaughterhouse" or other local meat processing business and "lowering fees and reviewing zoning laws" for value-added production will all help increase local production and local sales. One common suggestion is to develop an alternative "cottage industry" or "home processing" set of regulations that better accommodate the diversity of small-scale producers we have in Jefferson County.

Finally, many farmers see increased consumer education as key to increasing demand for local food. When asked about barriers to more local food sales, some farmers had the following to say:

- "Need more efforts at encouraging local buying. Need more efforts at joint marketing."
- "Education of the county population that there is a value to producing and consuming local food. It is better for their health and community health!"
- "Education of consumers and (greater) consumer consciousness about value. Fast food provides quick fix."
- "Having an educated consumer base who understands the real cost of food and becomes willing to pay the true cost of production, enabling the local food economy to be economically sustainable."

Many local businesses, business development organizations and local sustainability activist groups are working to increase awareness about the value of locally produced food. Continuing and expanding the community conversation about local food could help grow sales and increase the viability of local agricultural businesses.

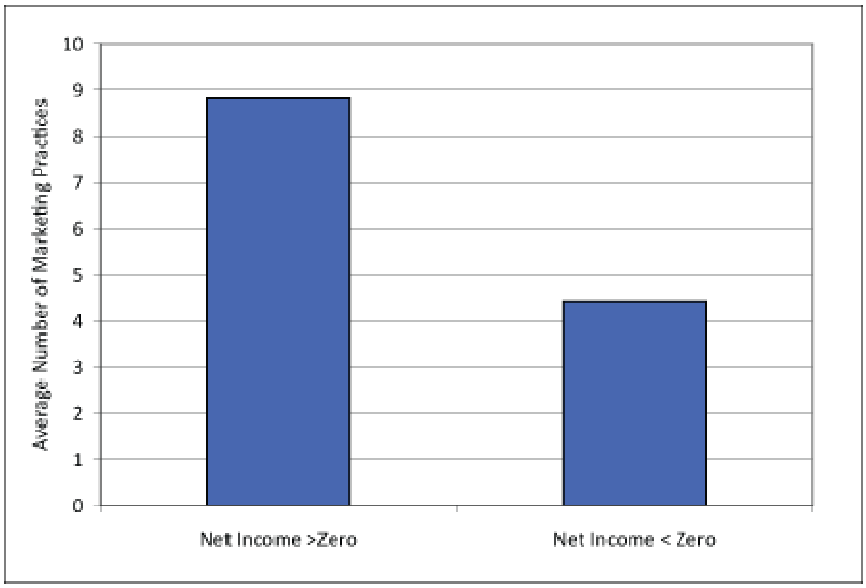
Increasing Farm Profitability

Profitability was listed as a major barrier to increased sales of local food in Jefferson County. We also showed in the Economic Sustainability Section that many of the farms we surveyed had zero or negative net income. With our very detailed survey of local farms, we had the opportunity to look at a broader picture across many farms and discover trends that may not be apparent when looking just at individual businesses. Diving into what makes Jefferson County farms profitable shows that there are two key ingredients for success:

1) Promotions and marketing
2) Appropriate land

First we explored what separates the farms with a positive net income from those not making any net income. We used a data exploration software program (classification and regression trees) to look at many of the potential factors that might reveal a difference between the two groups of farms. We noticed that almost all the farms in our survey with a gross income over $50,000 had some positive net income. When looking at farms grossing less than $50,000, we found that profitable farms engaged in twice as many marketing practices as farms with no net income.

Figure 7.3 Profitable farms grossing <$50,000 have twice as many marketing practices

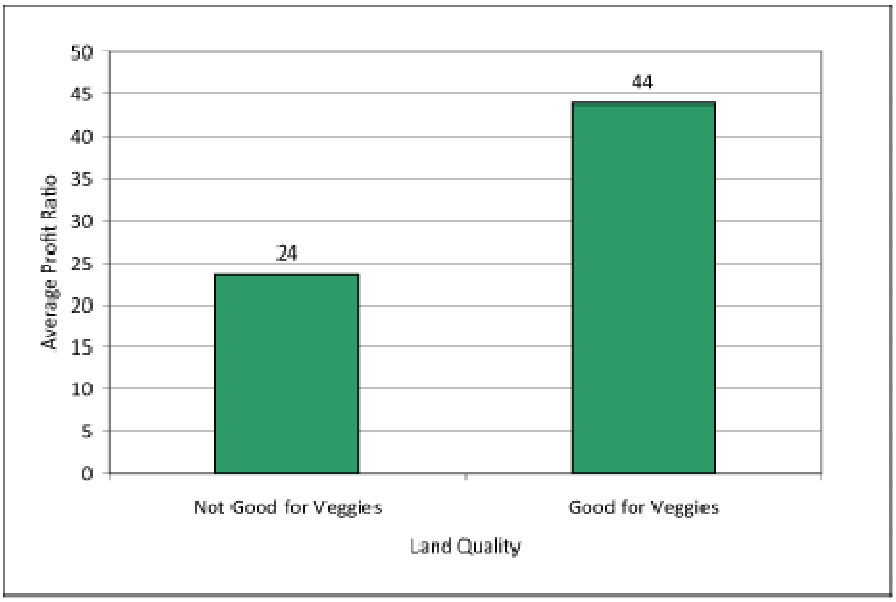


Classification and Regression Trees (CART) find distinctive groups within a dataset by repeatedly splitting the data using a simple rule based on a single explanatory variable chosen from the list of all potential variables. In our first data exploration we model the binary Variable Net Income >0 vs. Net Income =0 using the following potential explanatory variables: Total Gross Income, the Market Specialization Group (Direct, Market, Retail-Diverse), the Class of Products Sold (Animal, Plant, Mixed), the Percent Value-Added, Number of Years in Operation, Percent Local Sales, the Number of Marketing Techniques reported, Total Acres in Production, Total Hours of Labor in all worker groups, Total Square Footage of barns, outbuildings and hoop houses, farmer's assessment of Land Quality (whether land is considered good for vegetable production), and the answer to the question, "Would more water cause you to expand?" The variables were chosen based on farmer feedback to the presentation of the data on September 24, 2012. The analysis is based on 43 farms.

We asked farms to list all their current marketing practices including websites, news releases, brochures, visual branding, social networking, festival participation, farm tours and whether they are being promoted at farmer's markets, hotels and restaurants. Profitable farms had, on average, between 8 and 9 different marketing practices while farms with no net income had, on average, between 4 and 5 marketing practices. For small gross income farms substantially increasing their exposure and communications with the public through marketing and networking can increase profitability. Many organizations in the community are helping farmers improve their promotions and business practices. Our survey reinforces the importance of this work as farm operations grow.

Next we looked at all the farms with positive net incomes to see which ones had higher profitability ratios. We found that higher quality agricultural land supports more profitable businesses. Our interviews did not focus extensively on assessing the soils or suitableness of the land for food production. We did ask farmers to list, in their opinion, what products are best suited for their land including pasture, forestry, berries, orchards and vegetables. Vegetables typically are the most demanding of soil nutrients so they serve as a stand-in for land that is of higher agricultural quality. We found that farms thought of by their owners as "good for vegetable production" had profitability ratios twice as high as farms that were considered inadequate for vegetable production. This was true regardless of the actual products being raised.

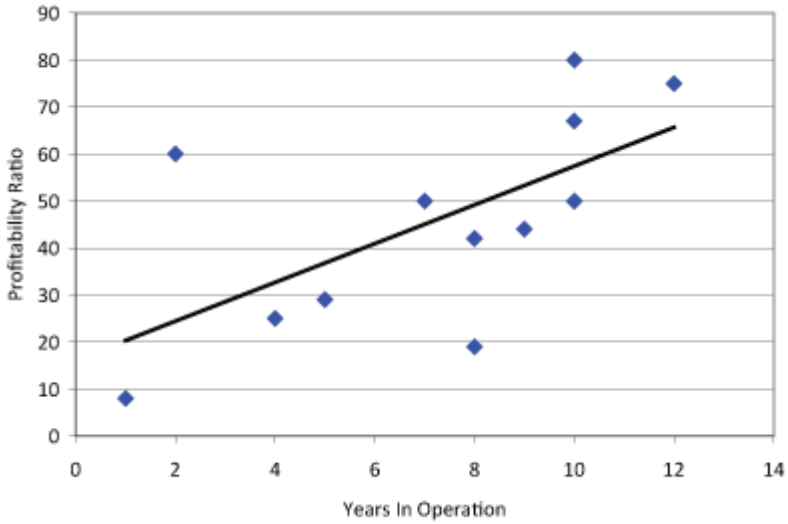
Figure 7.4 Farms on Better Quality Soils Have Higher Profitability Ratios



In second data exploration we used CART to model the continuous numerical variable 100*net income/ gross income for all the farms where net income > 0. We call this measure "profitability." We used the same set of explanatory variables listed for Figure 7.3. Again, the variables were chosen based on farmer feedback to presentation of the data on September 24, 2012. The analysis is based on 26 farms.

Beyond that, on better quality soils, profitability increases with the age of the farm for the first ten years. New farm operations are starting up and if they are paired with good soils they begin to prosper. The effort already started in the County to pair new farmers with quality agricultural properties and to facilitate transfer of productive land to new operators as older farmers retire is of the utmost importance.

Figure 7.5 Good Soils Increases Farm Profitability Over Time



Graph based on 12 farms that are <12 years old and on land considered by the farmer to be "suitable for vegetables."

The survey results regarding profitability provide an incentive for stakeholders in the County to think more deeply about agricultural land-use policy. As one farmer put it, "we need affordable *and appropriate* land." Our results only serve to emphasize this point. It is well known to farmers and soil conservation professionals which soils provide the highest benefit for specific crops. Future agricultural zoning, land-use decisions and property development must take the importance of soil quality and crop suitability into account. High quality agricultural soils cannot be allowed to go out of production or be destroyed for other purposes if we want local food production to thrive.

Community Action

Farmers suggested a wide variety of solutions that can be facilitated by the greater community. Farmers also showed a willingness to gather together and make solutions happen for themselves. With each survey we gave the farmer a non-anonymous "addendum", a sign-up sheet where they could indicate if they were willing to participate in cooperative arrangements with other farmers. The results show an amazing willingness of our local farming community to assist each other to make their farms thrive. Out of the 57 total surveys the following percentages of farmers were interested in co-operative arrangements:

- 31% value added production
- 24% distribution
- 36% transportation
- 21% by-product redistribution
- 17% co-operative land ownership
- 34% be a member of a "food council"

Almost one third of the farmers are willing to participate in a theoretical "Food Policy Council." They also had many ideas for what such a Policy Council should do, as compiled in Figure 7.6. Over half (52%) felt the role of the council should be to advocate for farmers while a quarter (25%) felt the primary mission should be to educate consumers.

Figure 7.6 Food Policy Council To-Do List

1. advocate for farmers (52%)
2. educate consumers (25%)
3. understand full scope of regulatory process
4. facilitate a farmer's bank
5. increase awareness of true cost of food production
6. promote food sovereignty, independence and security
7. create a clearinghouse of land availability
8. re-name it "Farm Policy Council"
9. change regulations
10. create collaborative environment, schools
11. facilitate low income housing
12. promote local food producers
13. create a system of water rights transfer

Based on input from 52 farms.

Farmers' opinions about the value of a "Food Policy Council" were mixed. Many of those who did not support such a council pointed to past failures of other councils or agencies to assist farmers. Perhaps not surprisingly then, when asked whether they themselves would be willing to be part of a Food Policy Council, 34% of the interviewed farmers were willing to donate their very limited free time to such a council. Several insisted that the "council" consist of all volunteers primarily drawn from the farming community. As one farmer said, "Any 'food policy council' needs to form from the farmers: from the soil up." Given the broad scope of the solutions needed to be developed to strengthen Jefferson County food production, there are many local stakeholders who will want to participate. The process by which any Food Policy Council forms will be very important. The farming community wants to be involved and directing the process from the beginning.

Where Do We Go From Here?

Citizens for Local Food was committed to giving voice to the farmers of Jefferson County and we hope that this report has lent them that dignity. We also hope that from this effort a resilient local food system may begin to emerge.

We believe that the data we have assembled is compelling enough that it stands on its own without the need for recommendations from our volunteer, ad hoc committee. However, having spent some small time in the company of our farming community in their fields, under their fruit trees, in their goat barns or at their kitchen tables, and after hundreds of hours poring over the results of these conversations and distilling it all down into this report, we feel confident that we can lend a few thoughts on what it will take to build "a local, secure and just food system that strengthens our community, ecology and economy."

We will need energized local government agencies to examine ways they can encourage agricultural sector growth by working side by side with farmers on developing smart regulations that consider the scale of local agricultural operations.

We will need more collaboration among our farmers in many aspects of their operations, from production to processing to marketing and distribution if we are to prevent rising fuel costs from deflating profits.

We will need courageous elected officials who will insist that Federal and State regulations are appropriate for our farmers.

We will need to build on the example of so many of our farmers in the wise stewardship of our working agricultural landscapes, adjacent lands and critical areas.

We will need to "pave" the pathway to regulatory compliance with smarter, Jefferson County-specific regulations that are more transparent and efficient for our time-strapped farmers.

We will need a higher percentage of residents, restaurants, groceries and institutional food services appreciating the efforts of our farmers who provide an excellent variety of healthy local food at fair prices and supporting those efforts by purchasing local food.

We will need to explore the potential of a Jefferson County Farm/Food Policy Council that has fair and effective representation from all sectors of the food system to craft sound policy.

We hope that CLF can provide an egalitarian, "pan-political" organizational platform on which a larger group of local food advocates can build upon our efforts just as this report was built on the efforts of those before us.

Volunteers

Volunteers

Designing and conducting the 2012 Jefferson County Agriculture Survey, analyzing the results and compiling a report on the findings required the labor of many volunteers. They are, in alphabetical order:

Judith Alexander
Dick Bergeron
Judi Bird
Lys Burden
Michelle Burr
Al Cairns
Camille Cody
Candice Cosler
Carol Cummins
Richard Dandridge
Dennis Daneau
Rick Doherty
Mindy Dwyer
Marnie Frederickson
Linda Herzog
Diane Johnson
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Glen Koch
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Laura Lewis
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Al Latham
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