



# **Food Production and Consumption in Thurston County**

A look at the relationship of food spending and direct marketing  
to food production in Thurston County

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**September 2002**

**The Evergreen State College, Olympia Washington**

## Acknowledgements

Thank you to these people who contributed time and knowledge to the data, anecdotal information and analysis that is presented in this report.

Bob Meyer, Stoney Plains Organic Farm

Gail Feenstra, University of California Sustainable Agriculture Research and Education Program

Liza Rognas, The Evergreen State College

David Nigard, Thurston Conservation District

Jeff Gadman, Thurston County Assessor's Office

Douglas Hasslen, Washington Agricultural Statistics Service

Leslie Zenz, Kelli Sanger and Miles McEvoy, Washington State Department of Agriculture

Marcia Ostrom, Washington State University Cooperative Extension, Puyallup

Vance Corum, Washington State University Cooperative Extension, Vancouver

Don Tapio, Washington State University Cooperative Extension, Grays Harbor

For accompanying materials:

Jennifer Hayes, Thurston County Planning Office, County map of Agricultural land

Veena Tabbut, Thurston Regional Planning Department, County parcel data map

Cover art: Margaret MacSems,

And to the Kellogg Foundation for funding.

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## Introduction

This report is intended to be an initial look at food production and consumption in Thurston County with an eye toward the potential of increasing local production and direct marketing. Agricultural enterprises that are small in scale, observe ecologically sound practices<sup>1</sup>, and market the bulk of their products locally, are a benefit to the environment<sup>2</sup>, individual health<sup>3</sup>, community connections<sup>4</sup> and the regional economy<sup>5</sup>. With direct marketing as a primary strategy it is also possible for farmers to actually make a living thus providing the basis for the local food system.

Locally grown food, which is then sold directly to eaters, grocers, restaurants or institutions generally has more flavor and is more nutritious because it is fresher<sup>6</sup>. When you buy local food you cut down significantly on packaging, transportation costs, fossil fuel depletion, and carbon emissions. Consider that the average meal travels 1,518 miles from field to table<sup>7</sup>.

Local food keeps profits in the community and builds relationships between farmers who grow the food and the individuals who eat it. Food with a face, as they say. And, with direct marketing as a primary avenue for selling, a much greater share of the food dollar stays with the farmers and out of agro-industrial food complex<sup>8</sup>.

The limitations facing the development or strengthening of a local food system are multi-faceted. Key issues are land tenure and the cultural and economic issues associated with whether or not there are ready, willing and able people to do the farming. Land tenure issues are the price of land, ownership laws and public policy regarding land use and development. Even if land was not an issue, we currently do not have enough people who want to or are able to farm. The interest in farming and the number of people doing it has been dwindling for years. In 1960 the number of farms in the US was 7 million and today it is at about 2 million<sup>9</sup> and involves less than 2% of the population. The shift away from agriculture has been primarily for economic reasons but the convergence of the negative cash flow of farming and the burgeoning of the high tech age and increase in consumerism, industrialization and the American standard of living (in terms of material wealth) has fostered a massive cultural shift away from the work of the land.

The price we pay for this is most evident in our landscape. It seems that farmland is valued esthetically but it doesn't translate to preservation. People do not see the connection between suburban sprawl and the loss of idealized America<sup>10</sup>. People are moving to the suburbs because it is more like the country but it is less like the country when they get there. The loss of these lands also has meant the loss of economically viable farming in metropolitan counties where there were once ready markets for fresh

farm produce. Now, thanks to the rediscovery of fresh food and the pleasure of real food, farmers markets are back in vogue and once again a few farmers are making a living on the urban fringe<sup>11</sup>.

Can this trend continue? Do we want it to? What can we do to retain the possibility of fresh affordable food for everyone? We hope that this report will lead the way to answering these questions for the people of Thurston County.

## Methods

Much of the data necessary to make an accurate assessment of the situation is not readily available and collect it would have been out of the scope of this research. As such, the overall method applied here was to gather the statistics and information available and then to estimate what was not available. The most valuable aspects of this research were to find out what is documented, what is not and what information we still need to build a comprehensive picture of food production, consumption and opportunities for linking the two on a local level.

The figure in this report that is estimated is the gross sales of the small and direct market farmers. The estimate was developed after consulting the lead statistician of the Washington State Agricultural Census and other Washington State agriculture researchers about who is, or is not, represented in the census. Then I worked with working farmers, and other agricultural agents to arrive at a reasonable guess of the gross income from small and direct sales.

Once the economic estimates were made and added to the other available data, comparisons were drawn between countywide food production and food consumption. The food spending figures are drawn from a report by the Economic Research Service of the United States Department of Agriculture called Food Spending in American Households, 1997 - 1998<sup>12</sup>.

The comparisons were made in economic terms. Even though in agriculture quantities might be appropriate for some comparisons it is economic records that are more closely kept.

Another disparity in making comparisons comes in estimating the number of acres in agricultural production. Because the census uses a different set of information to arrive at the total acres in farms than the county assessors office there is not an obvious correlation. For this reason the discussion of a comparison between the current amounts of land in farms to the potential land in cultivation is difficult to have and so I have not included it.

## Findings

Only food items that are currently grown on a commercial scale in Thurston County were included in this comparison. The spending figures are derived from a USDA report on food expenditures and are not calibrated to Thurston County demographics or food choices. The total average food spending

amount per person in the USA in 1998 was \$1,773. Of that 62% was spent on food at home (\$1,094) and 38% away from home (\$679) (Chart 1). The amount spent on food items that we grow in Thurston County is 48% of the at home spending (\$536.48).

**Figure 1 Countywide food spending and agricultural production in Thurston County**

Food Item	% Food Spending	Individual Spending (\$)	Countywide Spending (\$)	(\$)	County Production	\$ Difference	% Difference + or -	Notes
Vegetables	17	88.56	17,712,000					Light gray cells not computed.
Fresh		58.96	11,792,000					Due to insufficient data this breakdown is not available.
Processed		29.60	5,920,000					
Fruit	8	42.76	8,552,000					Information has been combined
Fresh		36.91	7,382,000					In the next row: Fruits and
Processed		5.85	1,170,000					Vegetables.
Combined Fruits & Vegetables	25.0	131.32	26,264,000	4,7455,000	-21,809,000	17 (we grow 17% of the amount we buy)	-	- indicates that we buy more than we produce for sale in Thurston Co.. There may be room to increase local production/sales.
Dairy	26.0	140.22	28,044,000	29,056,000	+ 1,012,000	97 (we buy 97% of the amount we produce)	+	+ indicates that we produce more for sale than is eaten in Thurston Co..
Eggs	2.5	13.09	2,618,000	35,000,000	+32,382,000	8		Example of export item
Poultry	10.5	55.99	11,198,000	20,000,000	+ 8,802,000	56		
Beef	17.0	87.77	17,554,000	16,915,000	-639,000	39		
Pork	11.0	57.89	11,578,000	137,000	-11,441,000	1		Example of open regional market
Fish and Shellfish	8.0	40.20	8,040,000	45,000,000	+ 3,696,000	18		
<b>TOTAL</b>	<b>100.0</b>	<b>526.48</b>	<b>93,718,000</b>	<b>140,420,000</b>	<b>+46,702,000</b>	<b>67</b>		With respect to these food items we are an agricultural county.

The remainder of at home food spending (52% or \$567.52) is applied to items such as grains, bakery items, citrus, bananas and other tropical fruits, sweets, beverages, etc..

It should also be noted that there is more agricultural production in Thurston County than is in this comparison. 80% of agricultural income is from sales in food categories that we eat and only 20% income is from non-food items such as hay, greenhouse and nursery plants, Christmas trees, other animals such as horses, and seed stock (chart 3).

In order to estimate the economic impact of food spending in Thurston county the individual spending figure was multiplied by 200,000 residents (chart 2). Only the portion of the spending that goes toward purchasing food products, or food categories, grown in Thurston County were included in the countywide figure. So, for example, the countywide total is \$93 million but this does not include spending on tropical fruits, coffee, etc..

County production figures come from various sources. Most are derived from Table 2 of the county summaries and highlights section in the 1997 USDA Washington State Agricultural Census<sup>13</sup>. The poultry and egg figures are from a Thurston Conservation District report<sup>14</sup>, fish and shellfish are figures are found in the Thurston County comprehensive plan<sup>15</sup>, which, brings us to the fruits and vegetable figures.

After talking with several farmers and agricultural agents including the leading statistician of the 1997 agricultural census I feel confident in presenting the information that most of the fruit and vegetable growers in Thurston County, who are also small and direct marketers, are not represented in the census or any other statistical or economic report except for the Washington State Farmers' Market Association annual reports<sup>16</sup>. As I continued to talk with experienced growers, market managers, and Washington State extension agents doing research on this topic, I came up with an estimate of these small growers contribution to our food supply and economy.

According to the 1997 Washington State Agricultural Census the market value of agricultural products sold and direct sales were nearly \$4.8 billion<sup>17</sup>. Comparatively speaking these 40-50 small and direct farmers are not big players. However, on a county level on the issue of food for people they are significant. According to the estimate they produce \$3 million, or 67% of the total value (\$4.45 million) of fruit and vegetable crops produced in Thurston County. It also appears that this produce is a major portion of the locally grown produce that is *also* consumed here.

Through this comparison it appears that there is a \$21.8 million gap in the market for fruit and vegetable products here (chart 4). Another market gap is the production and sale of pork. Thurston County produces only 1% of the estimated amount bought in the county. There is \$11.4 million to be

earned by local farmers who can sell directly to this market. Beef is another, with a market gap of over \$10 million.

Thurston County also has a few strong export products, which includes shellfish, poultry, and eggs. Our dairy production is nearly equal to spending but as we all know it is not likely that the milk produced here is consumed here. This is likely to be true for all of our food production. Our berries and chicken travel away and other berries and chicken are brought in from other states and other countries.

## **Discussion**

This is the logic of global economics. And it is the logic in question. It appears that Thurston County is a place with the ability to operate on alternate terms. We have an opportunity to build and rebuild our agricultural economy for the purpose of maintaining and even increasing our quality of life. Not every region is as fortunate as we are to have as much agricultural land available as we do in such close proximity to urban centers where an eager public supports direct marketing.

Taking conscious control of our food system is a powerful opportunity to shape our landscape and our local economy. It seems that we have the basic elements available to us here to create the food system we want. There is a great deal more study that needs to be done in order to fully assess our situation: our resources and other assets, needs, desires and opportunities.

**We need to decide what we want our landscape to look and feel like and to decide what level of environmental health and stability we want to maintain.**

- What are the esthetic and environmental benefits to the public?
- What is the relationship of economics and environment in the case of local agriculture?
- Which public agencies might see and support the benefits of increasing local agriculture that is ecologically sound?

**We need to evaluate our land and land use policies.**

- How much land do we have available for food production?
- How much of it is in use and how much of it could be used for food production without adversely affecting sensitive habitat areas?
- Are our land use, tax and zoning, and growth management policies supportive of maximizing local food production?



- Do we have land tenure options that are supportive of new farmers?

**A full economic assessment is required in order to make the case for increasing local food production and the direct marketing approach.**

- What are the costs of production in Thurston County?
- How do they compare to incomes.
- Is the double gross income of direct marketing farmers a living wage?
- Where will the farmers come from?
- Is there enough economic incentive to entice new farmers into the field?
- Do we have adequate training and support services for small farmers in our county?

**We need to have a dialog about the food system with all of the stake holders**

- What interest is there from local supermarkets, restaurants and institutions for buying direct from local farms?
- Where is their incentive? What would it take?
- Do more farmers want to enter those markets?

**We need to know who “we” are and what “we” want to eat.**

- How many people in Thurston County care about a local food system?
- What do people actually eat here in Thurston County? Is it different than the national average? How much do we spend on food, really?
- How dependent are we as a whole on federal food voucher programs?
- What impact could this stream of funding have on a local food system?
- How can we make fresh local food, which is often more expensive than canned and imported food, available to everyone?

## Recommendations

In order to answer the preceding questions a number of steps need to be taken. The first is to do a more thorough investigation of our food production and consumption. The most glaring need for further data is from the small and direct farm segment. It has been recommended but several farmers that a complete **small farm survey** be taken in order to document the amount of land in cultivation, products grown, the cost of production and income from various types of direct marketing.

As a part of the background for this report a spreadsheet that can serve as a template has been made. It is a useful starting place for collecting and organizing information about small and direct market farmers in Thurston County.

For the purpose of gaining a better understanding of what we actually eat and what we spend on food in Thurston County a **survey of eaters** should be taken along with investigation into the demographics of Thurston County.

We can do all the market analysis we want but if we don't attempt to match the market opportunities to the physical realities of land in Thurston County we will not develop the most beneficial strategies to meet our goals.

Accompanying this report is an electronic file containing a parcel data map in Arcinfo. In an attempt to find out **what land is being used for current agriculture and what land could be used for future agriculture without disturbing sensitive lands, cutting forests or tearing down buildings** I recommend joining our county data with the land cover data from the Washington State Gap Analysis. It is publicly available from:  
[www.wa.gov/wdfw/wlm/gap/landcover.htm](http://www.wa.gov/wdfw/wlm/gap/landcover.htm).

In the files for this report at Evergreen there is also a large map, made by the Thurston Geodata Center, which delineates designated agricultural land and parcels in the Agriculture and Open Space Program (ag-83).

I would also recommend that a group of concerned citizens **look over the current comprehensive plan and land use policies of Thurston County and discuss the implications** of our current plans and policies as well as whether there might be changes that would better support a local food system for Thurston County.

It may be useful to do a **complete food system/food security analysis**, which would reveal what the needs, access and flow of food is in our community. The *Community Food Security Assessment Toolkit* available from Economic Research Service of the USDA.

## **Other helpful publications and information**

### **Thurston County Farm Map**

Sound Foodshed, 2002

### **Community Food Security Assessment Tool Kit**

Economic Research Service, July 2002, E-FAN 02-013

### **Our Food-Our Future: Enhancing Community Food Security Through Local Action**

Division of Nutritional Sciences Cornell Cooperative Extension, Cornell University, June 2002

### **Fertile Ground: Planning for the Madison/Dane County Food System**

Department of Urban and Regional Planning, University of Wisconsin- Madison, 1997

### **Placer County Foodshed Report**

Shawn King and Gail Feenstra, UC Sustainable Agriculture research and Education program,

University of California, Davis, October 2001

### **Creative Ways to Sell and Distribute Locally Produced Food to Schools and Cafeterias**

Kelli Sanger, Evergreen State College, Olympia, Washington, December 2001

### **Community Food Systems topic page**

<http://www.nal.usda.gov/fnic/etext/000061.html>

### **Sound FoodShed**

[www.soundfoodshed.org](http://www.soundfoodshed.org)

### **Thurston County Planning Department**

<http://www.co.thurston.wa.us/permitting/plancomm.htm>

## Endnotes

<sup>1</sup> Fredrick Kirschenmann, "Scale— Does it Matter?" *Fatal Harvest: The Tragedy of Industrial Agriculture*, ed. A.Kimbrell (Island Press, 2002), 96.

<sup>2</sup> *Food for Thought* (Environmental Defense, 2001), iii

<sup>3</sup> Andrew Kimbrell, "The Evolution of Industrial Vegetable Production" *Fatal Harvest: The Tragedy of Industrial Agriculture*, ed. A.Kimbrell (Island Press, 2002), 113

<sup>4</sup> Gail Feenstra and Steven Garret, *Growing a Community Food System*, (Western Regional Extension, 1999), 3

<sup>5</sup> Deborah Bowers and Tom Daniels, *Holding Our Ground: Protecting America's Farms and Farmland*, (Island Press, 1997), 17

<sup>6</sup> Integrity Systems Cooperative Co.and Sustainability Ventures Group, *Adding Value to Our Food System: An Economic Analysis of Sustainable Community Food Systems*, (United States Agriculture Sustainable Agriculture Research and Education Program/University of Utah,1997), 6

<sup>7</sup> Richard Pirog, Timothy Van Pelt, Kamyar Enshayan, and Ellen Cook, *Food, Fuel and Freeways*, (Leopold Center for Sustainable Agriculture, 2001), 1

<sup>8</sup> Rebecca Spector, "Fully Integrated Food Systems" *Fatal Harvest: The Tragedy of Industrial Agriculture*, ed. A.Kimbrell (Island Press, 2002), 351

<sup>9</sup> *Agricultural Resources and Environmental Indicators, 1996-97*, (USDA, Economic Research Service, July, 1999) Agricultural Handbook No. 172, 32.

<sup>10</sup> Joan Iverson Nassauer, "Agricultural Landscapes in Harmony with Nature" *Fatal Harvest: The Tragedy of Industrial Agriculture*, ed. A.Kimbrell (Island Press, 2002), 189

<sup>11</sup> LyndaV. Mapes, "Nurturing a Niche: New-generation farmers are growing markets and a way of life", Seattle Times, 15 September, 2002 Pacific Northwest Magazine. View at: <http://seattletimes.nwsourc.com/pacificnw/2002/0915/cover.html>

<sup>12</sup> Noel Blisard, *Food Spending in American Households 1997 - 1998*, (USDA Economic Research Service, June 2001), table 15, 53 for spending categories and 2 for the information on at home and away from home spending.

<sup>13</sup> *1997 Washington State Census of Agricultural*, (USDA/NASS, March, 1999), Table 2, 180

<sup>14</sup> Kirk Robinson, *Thurston's Best Kept Secret*, (Thurston Conservation District, 2001). Poultry and eggs figure.

<sup>15</sup> *Comprehensive Plan*, (Thurston County Planning Department, 1992?) Chapter 3, 7. Fish and shellfish figure.

<sup>16</sup> Washington State Farmer's Market Association Annual Report for year 2000.

<sup>17</sup> *op. cit.* 1997 Washington State Census of Agricultural, Table 2, 12

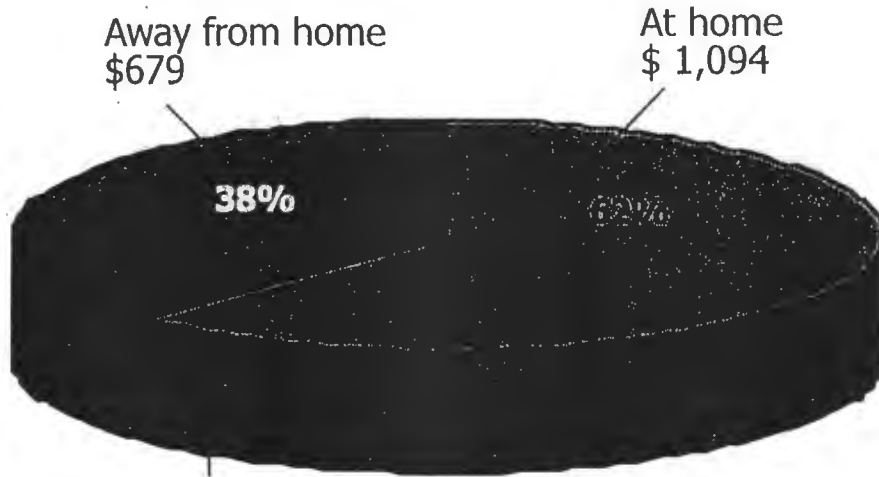
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**Appendix**

**Charts 1-4**

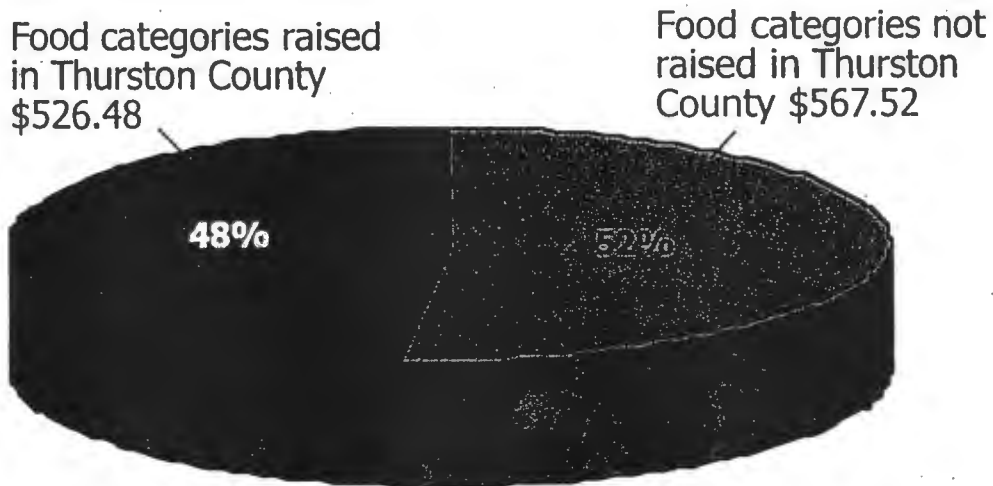
# Chart 1

## United States average food spending



**Total food spending \$ 1,773**

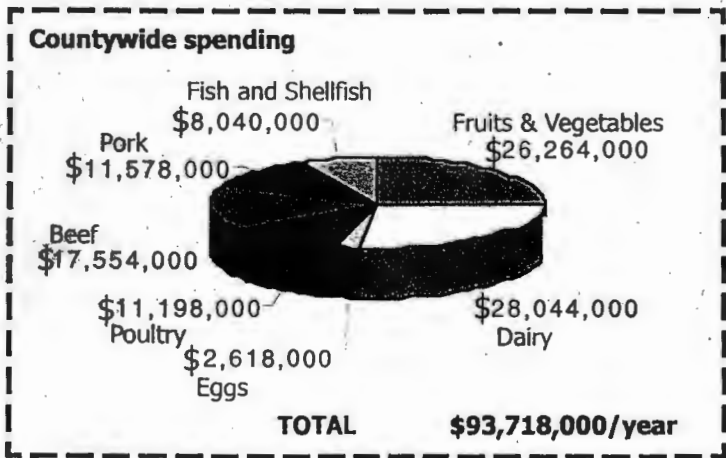
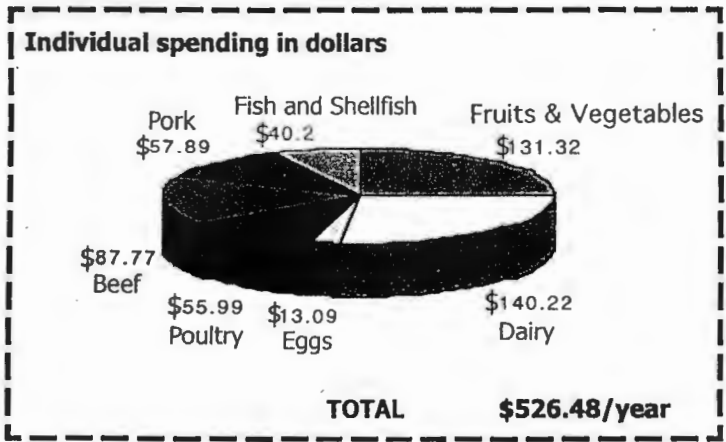
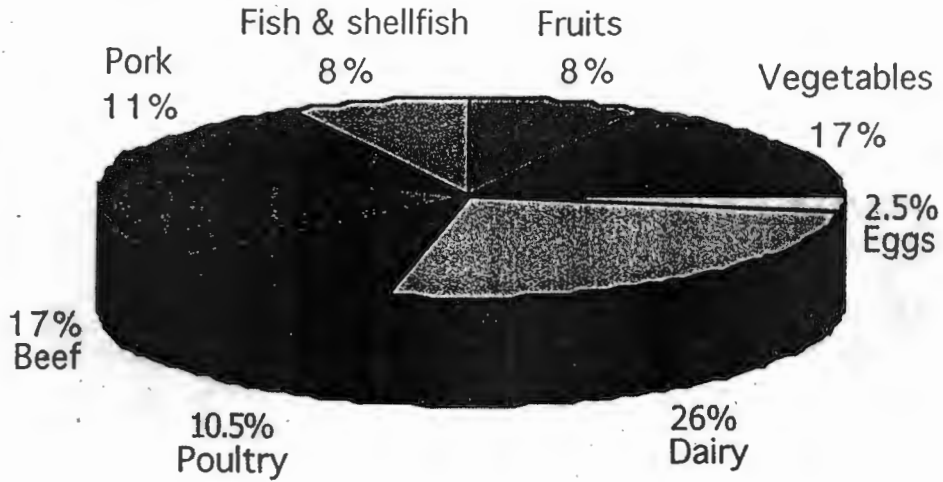
## At home spending on food categories produced in Thurston County



**Total at home food spending \$ 1,094**

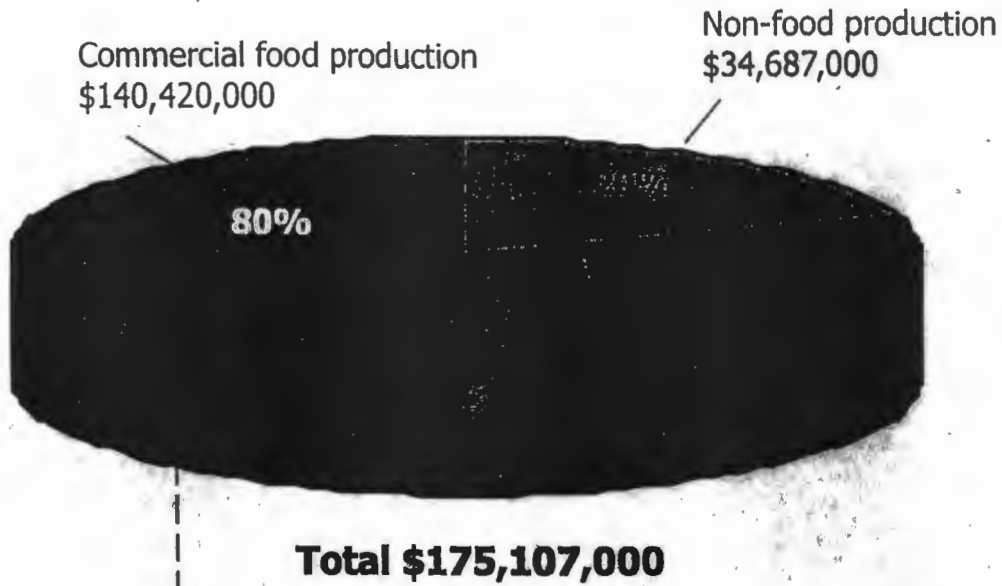
# Chart 2

## Estimated food spending on food categories produced in Thurston County

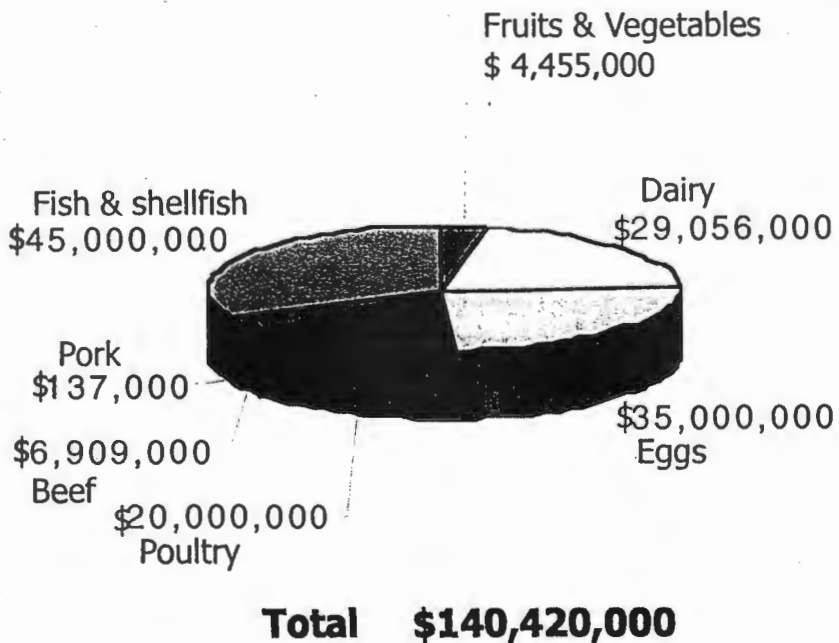


# Chart 3

## Estimated Thurston County commercial aquaculture and agriculture production



## Estimated Thurston County commercial food production

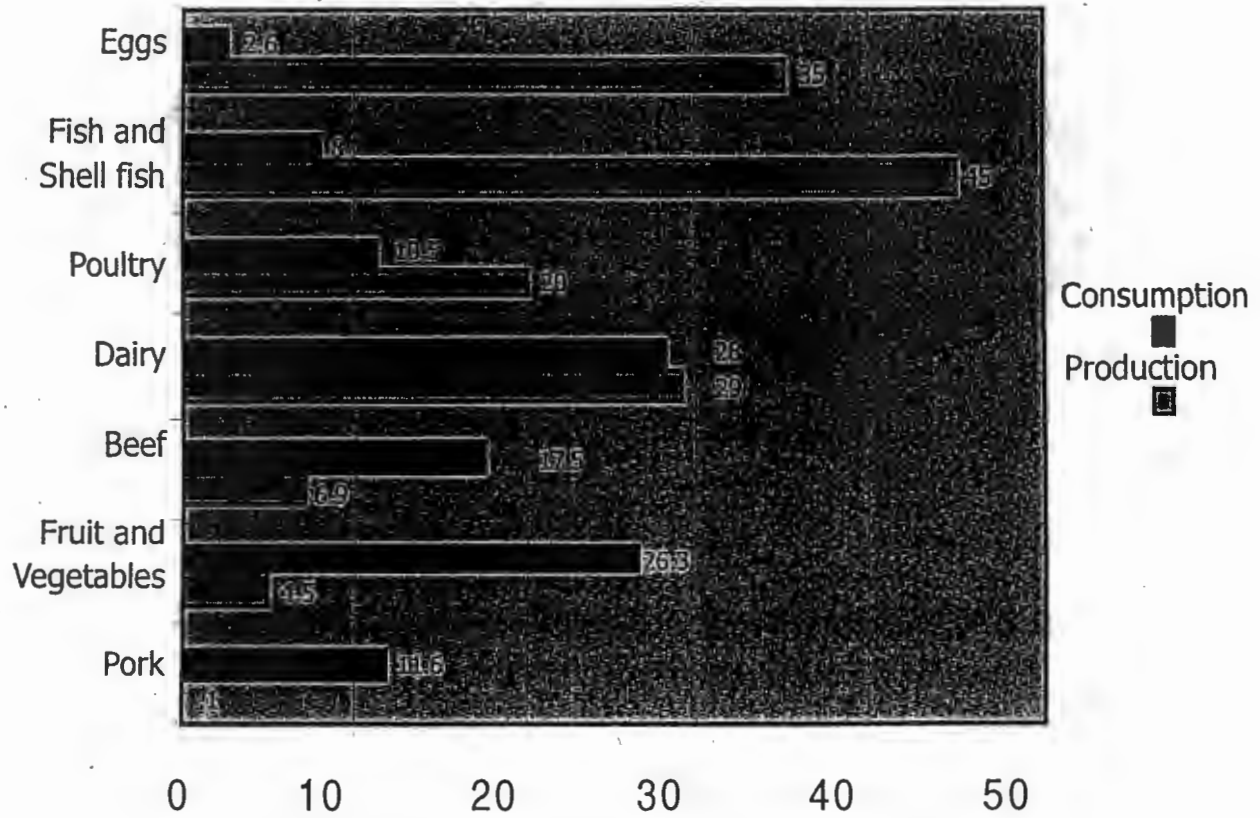




# Chart 4

## County Consumption Compared to Production

(in millions of dollars)



# Food Production and Consumption in Thurston County

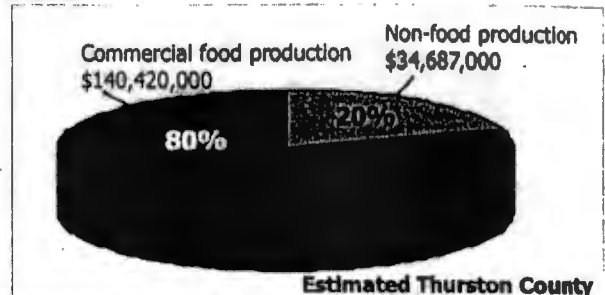
A glimpse at the relationship between food buying and agriculture

## Agriculture and food production in Thurston County

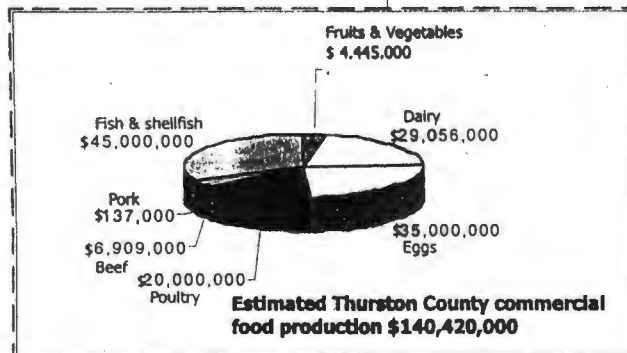
Thurston County is not considered an agricultural county by the standards of production in Washington state. However, when looking at our county production from a food security perspective we are quite agricultural. Consider that 80% of what is produced here in agriculture and aquaculture are food items that we eat. Only 20% is in products such as nursery and greenhouse crops, hay and silage or seed crop, or other livestock such as horses.

In addition to these commercial crops and the estimated values, Thurston County has many other food sources that have not been documented nor estimated. These sources include wild foods such as mushrooms, berries, game, fish and shellfish. Another food item that is collected here, primarily for export, is goosdick at about \$60 million per year. Home and

community gardens are also a part of the food system here in Thurston county but there is no data available on the amount or value of food they contribute.



Estimated Thurston County aquaculture and agriculture production \$175,107,000

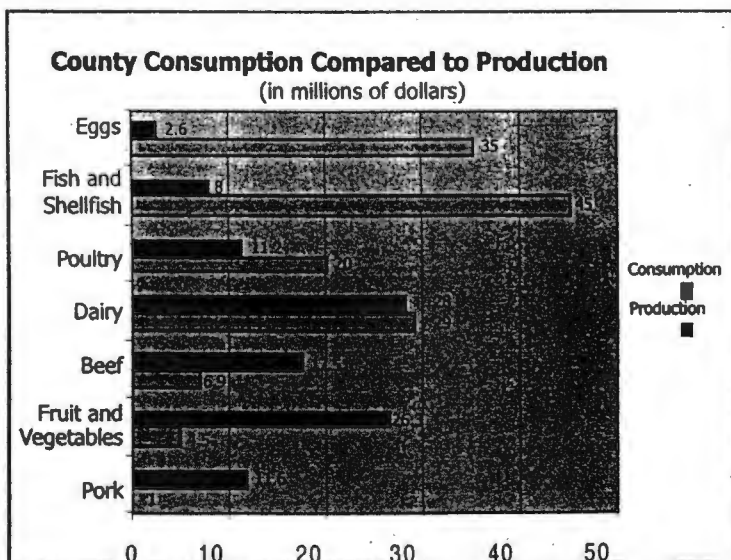


Estimated Thurston County commercial food production \$140,420,000

## Small farms grow a big percentage of local produce

Small farmers in Thurston County who grow primarily fruits and vegetables grow 67% of the local produce and they gross about twice as much as

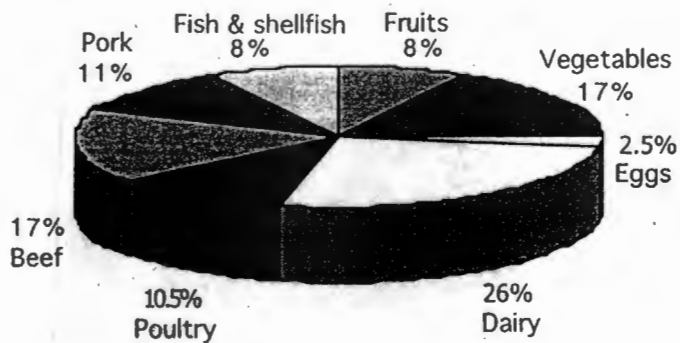
the commodity growers. Yet, only 3% of our agricultural production is in fruits and vegetables. Thurston County residents purchase an estimated \$26.26 million of fruits and vegetables (not including citrus and tropical fruit) but we only produce \$4.45 million. That means there is a difference of \$21.81 million. Some of that market could surely be filled by local agriculture if direct selling to food buyers is the main marketing strategy. Also, the pork and beef markets are much stronger than our production, there is a combined under production of \$22.9 million.



## The economics of eating

The average food spending of an American is \$1,773 per year. Of that 62% (\$1,094) is spent on food eaten at home and 48% of that (\$526.48) is spent on food categories produced in Thurston County. The average person spends the rest of her grocery dollars (\$567.52) on food items (with

**Estimated Food Spending**  
on food categories produced in Thurston County



raw ingredients) not produced in Thurston County such as bread, cereal, bakery items, coffee, soda, wine, beer, grains, oils, citrus and tropical fruits and more. Projecting the individual spending to a countywide level of at least 200,000 people we spend over \$93 million on food items that are produced in our county each year. That doesn't mean, however that Thurston County residents eat food raised in Thurston County.

### Local food is good for you, our farmers and our environment

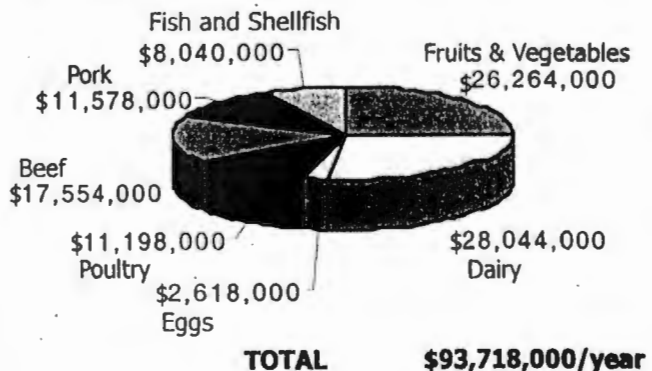
In Thurston County we have a speccail bounty. The land and climate is good for agriculture and there is still a good ratio of productive land to the number of residents in the county. With continued strong growth management policy, agricultural values reflected in land use policy, and a continued expansion of local and direct food markets where there is minimal interruption of the relationship between the farmers and the buyers (be it an individual, an institution or a grocery store) there can be a considerable benefit for the county as a whole.

We currently buy an amount of food equal to only 67% of our total agriculture and aquaculture production. An increase in local food production and consumption does not insinuate the exclusion of imports or reduction of exports of

### Individual spending



### Countywide spending



food, but it appears that we can increase our local buying if we have the land, the farmers and the local direct market(s).

Local food makes environmental and nutritional sense. If we can grow it here it means it won't be shipped as far as most of our food, which travels an average of 1,400 miles. Shipping uses dwindling natural resources, pollutes the air and diminishes the nutritional value of food by the hour.

Much of the landscape we enjoy here in Thurston County is the result of agriculture. There are physical and mental health benefits associated with having open space around us. The best way to protect this beauty and serenity is to make farming economically viable in Thurston County.

Research and report by Margaret MacSems, September 2002. This is an extract from the full report titled Food Production and Consumption in Thurston County. Data and estimates for were gathered from the 1997 Washington State Census of Agriculture, The Washington State Farmers Market Association, Thurston County Planning Department, Thurston Conservation District, Thurston County farmers, and agricultural agents. The study was funded by the Kellogg Foundation through The Evergreen State College.