

Chapter 4

Agriculture: Yesterday and Today - How has it Changed?

To get a sense of the current state of agriculture in Whatcom County, we must look at how local agriculture has developed historically. Current use of agricultural land is determined by a number of issues, from the base ecological capacity of soils and climate to the market potential of products that can be produced here. Examining these factors helps us to understand the relative health of the agricultural industry and the economic and geophysical role that it plays in the lives and culture of Whatcom County residents. This chapter examines uses of agricultural land for crops, both historical and current, demographic shifts within the farming community, and Whatcom County organizations and programs that support agriculture.

History of Agriculture in Whatcom County

Agriculture has been a major part of the economy of Whatcom County since before 1900. In the 1860s and 1870s, much of the forested land was cleared and burned for subsistence farming. Soils in Whatcom County have always been high quality, allowing the area to support consistent agricultural production. At some times in history, such as before 1900 and during the Depression, so much food was produced in Whatcom County that even the poorest residents did not go hungry.

Many types of crops have been grown in Whatcom County over the past 150 years, and the importance of each of these crops has changed over time. Farm goods, including seed crops (wheat, corn), potatoes, sugar beets, green beans, and peas were traded locally. Transportation advances changed agricultural production in the second half of the 19th century. Refrigerated train cars, developed in the late 1890s, allowed an increased range of products, including eggs, meat, and milk, to be shipped farther afield, mainly to west coast markets such as Oregon and California.

Much information about the history of agriculture in Whatcom County was supplied by Troy Luginbill from the Lynden Pioneer Museum. Statistical agricultural data is available from the Census of Agriculture; information collected that is comparable to 2007 data is available from 1959.

Poultry and Dairy

In 1902, a dairy processing plant started in Lynden and produced milk, butter, ice cream, and dried milk. By 1910, most dairy processing in the County was done off-farm.

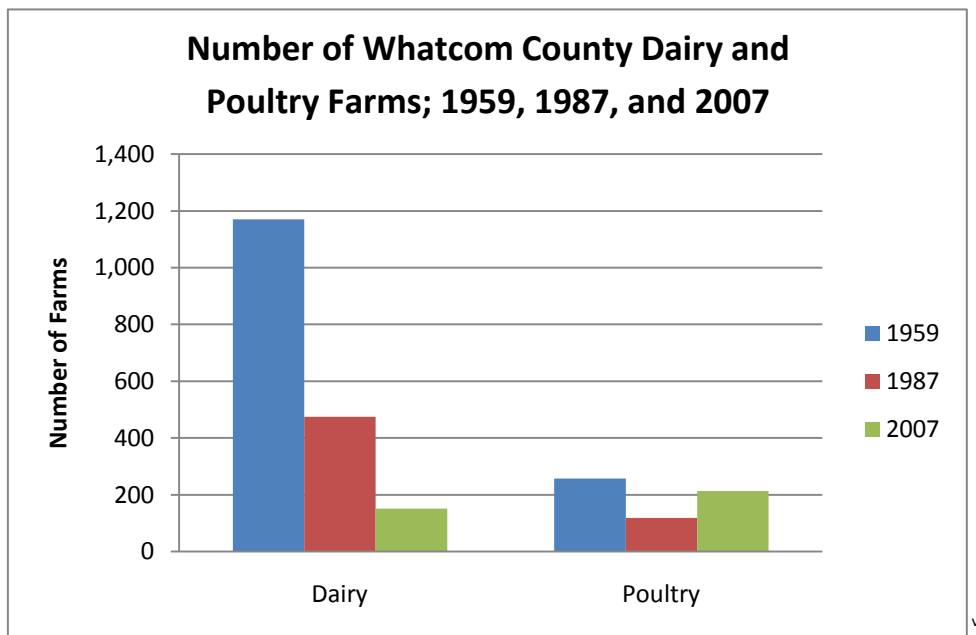
An agricultural and economic boom occurred during World War II. Dried milk from the Lynden cooperative dairy processing plant (today part of the Darigold Cooperative) went to the war effort, as did condensed milk from a Carnation dairy plant in Everson. Poultry and egg production increased, encouraged by facilities in Seattle and San Diego, where dried eggs were processed, again for shipping overseas.

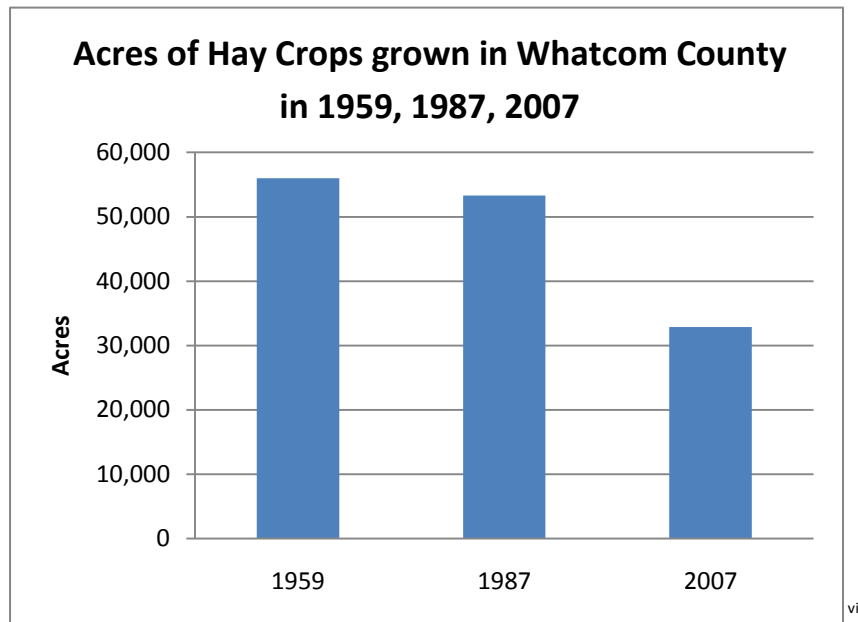
In the 1950s, dairy, poultry, and egg production made up about 90% of agriculture in Whatcom County. At the peak of egg production, over 3 million eggs per day were shipped from Whatcom County to areas all over the nation. Poultry production was so extensive in the County that “Lynden Chicken Noodle Soup” became a popular canned item, sold nationwide.

With lower-cost competition from other areas of the country, the County’s poultry industry collapsed in the 1960s. The dairy industry filled the gap, with about 90% of farms in Whatcom County becoming dairy producers. By the 1970s, the cooperative plant in Lynden limited itself to processing dried milk. Until 2003, it was the largest dried milk plant in the world, currently producing over 1.2 billion pounds of powdered milk annually.ⁱ Dairy farms are decreasing in number and profitability is difficult; the number of dairy farms dropped from 151 in 2007 to 128 farms in 2009.ⁱⁱ This is not unique to Whatcom County. According to the United States Department of Agriculture, “the price U.S. dairy producers received for milk marketed in the summer of 2009 was about half of what it cost them to produce milk.”ⁱⁱⁱ

Whatcom County ranks as the #2 dairy producing county in Washington and is among the top 6% of dairy-producing counties in the United States.^{iv}

Dairying in the County has traditionally been accompanied by the production of timothy clover, silage, and other feed crops. Acreage of hay crops reflects that of livestock farms in the area; those numbers decreased between 1959 and 2007, with a steep decrease after the late 1980s.^v



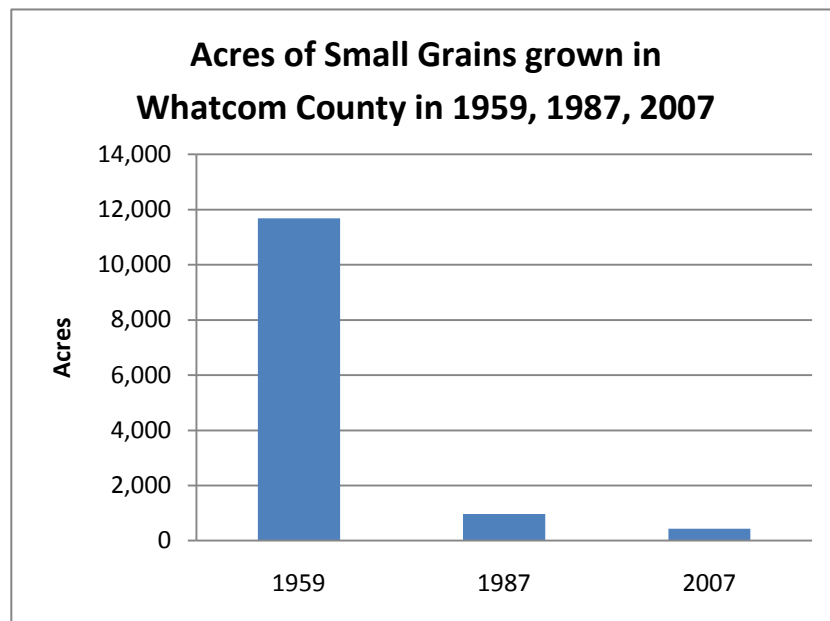


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Small Grains

Small grain crops are those such as wheat to be processed as flour and other products for human consumption. These crops were a common element of subsistence farming during the early part of the 20th century.

In the early 1900s large tracts of Whatcom County land supported the growth of small grains. More than 14,000 acres of grains, such as oats, barley, wheat, and rye, were grown in the 1920s; this number decreased to just over 7,000 acres in 1963. As of 2007, negligible acreage was devoted to any grain other than winter wheat, which was grown on 430 acres.^{viii} While small grains today account for little acreage or annual production, new interest has arisen in producing these crops in our region. A breeding program for small grains in Western Washington is a new addition to the WSU Mount Vernon Research and Extension Center.^{ix}

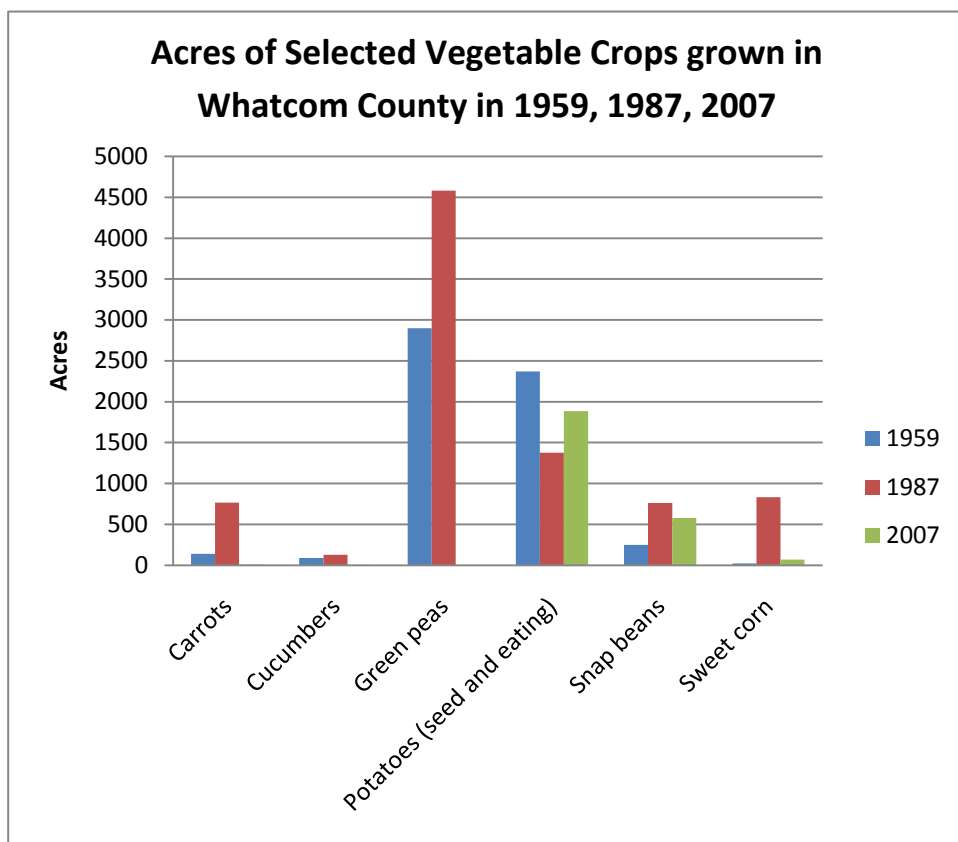


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Vegetable Crops

Historically, a wide variety of vegetable crops have been grown in Whatcom County, including green peas for processing, sweet corn, snap beans, pickle cucumbers, carrots, and seed and eating potatoes. Processing facilities for fruits and vegetables were available for freezing and canning summer grown vegetables. These facilities have moved to areas with a more consistent harvest of summer vegetables, so vegetable acreages have also decreased.

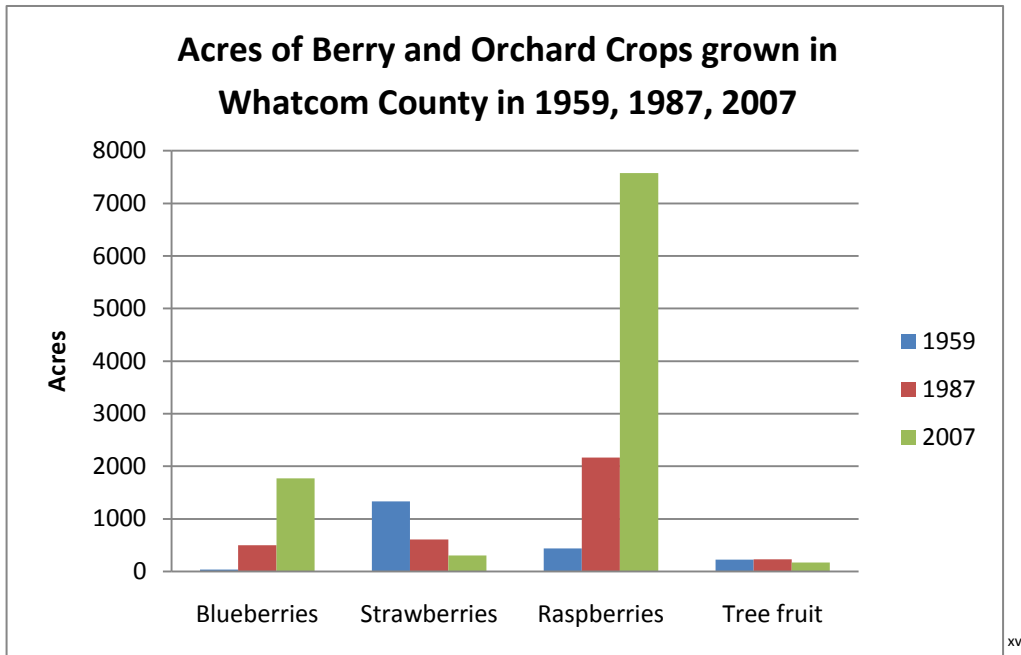
Whatcom County produces an abundance of seed potatoes (potatoes for planting to produce eating potatoes) and it is considered a Seed Potato Isolation District by Washington code.^{xi} The production of this high quality crop requires conditions that are free from pests and diseases as much as possible. Production of eating potatoes is restricted to areas less than 1 acre in size; this protects the seed potato industry from insect pests and soil borne diseases. This industry is still strong in Whatcom County.



Fruit Crops

Berries are currently and have historically been a staple of agriculture in Whatcom County. Strawberries were the first known commercially grown berry crop, in the late 1800s or early 1900s, when growers probably cultivated wild varieties. Strawberry acreages have decreased since the 1950s, but raspberry and blueberry acreages have increased. All types of berries are grown primarily for processing, with several processing facilities operating in Whatcom County. Two mechanical harvester companies have facilities located in Whatcom County; they manufacture harvesters for raspberries and blueberries, as well as for crops grown globally, such as coffee, corn, and olives.^{xiii, xiv}

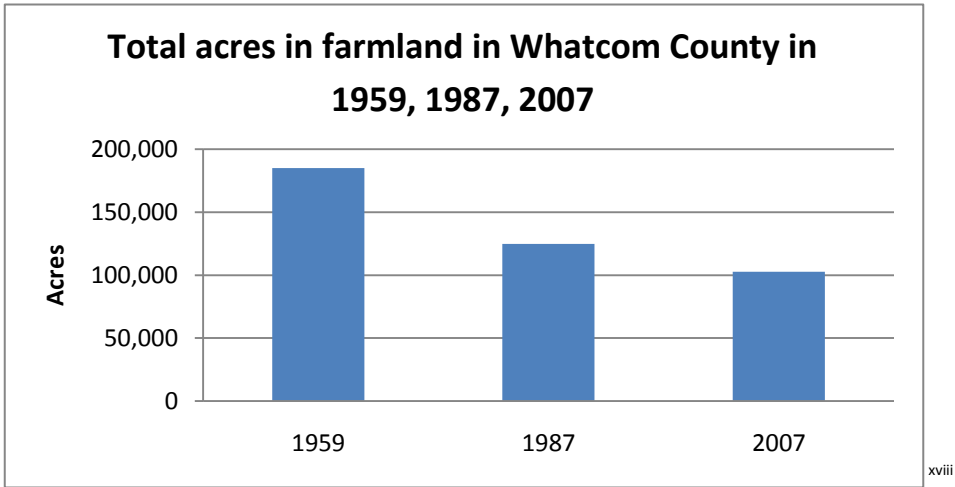
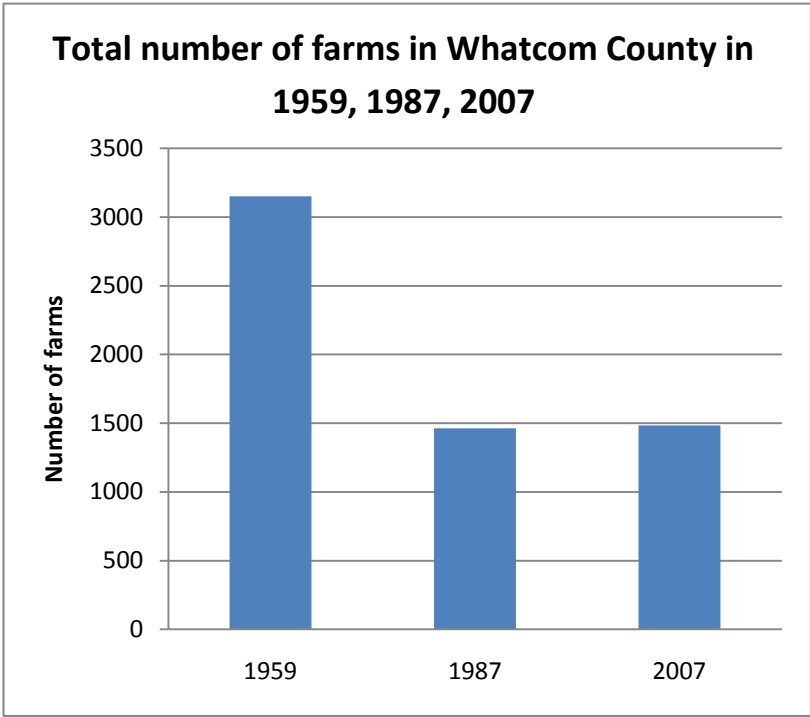
Fruit trees are not a large component of agriculture in Whatcom County, but such orchards do add to the County's range of production. The majority of orchard crops grown are apples, but smaller acreages of pears, grapes, cherries, peaches, plums, hazelnuts, and walnuts have been grown throughout the County's history.

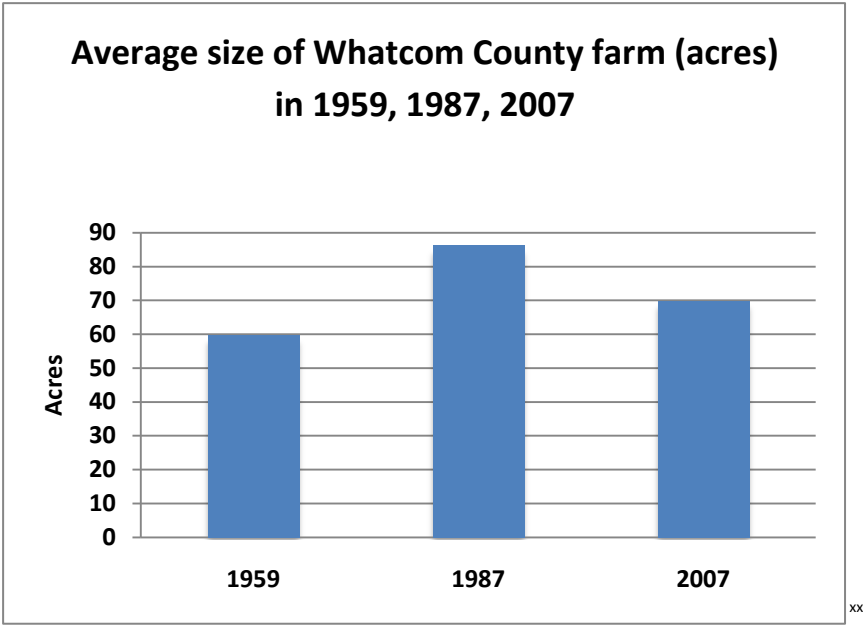
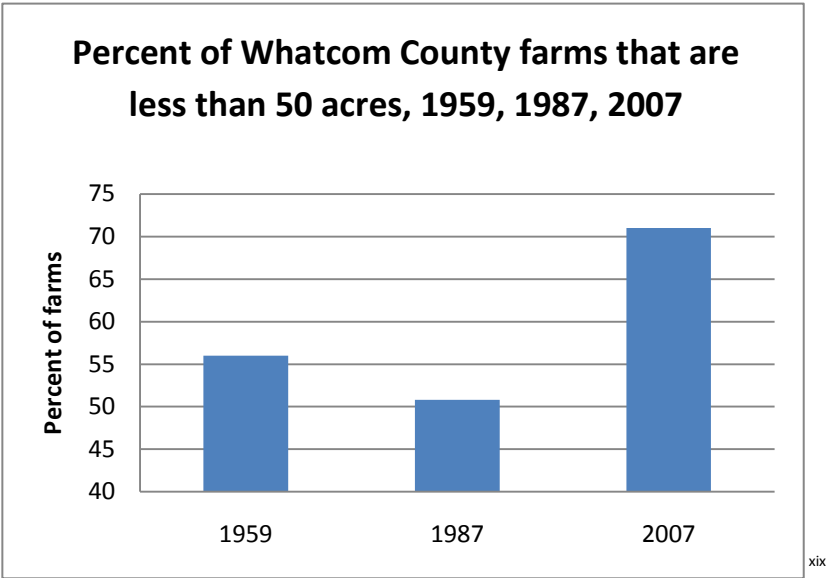


Change of Farm Scale and Ownership

Whatcom County's agricultural landscape and economy have changed significantly since farms began to increase production in the early 1900s. Recent agricultural census data shows that change continues.

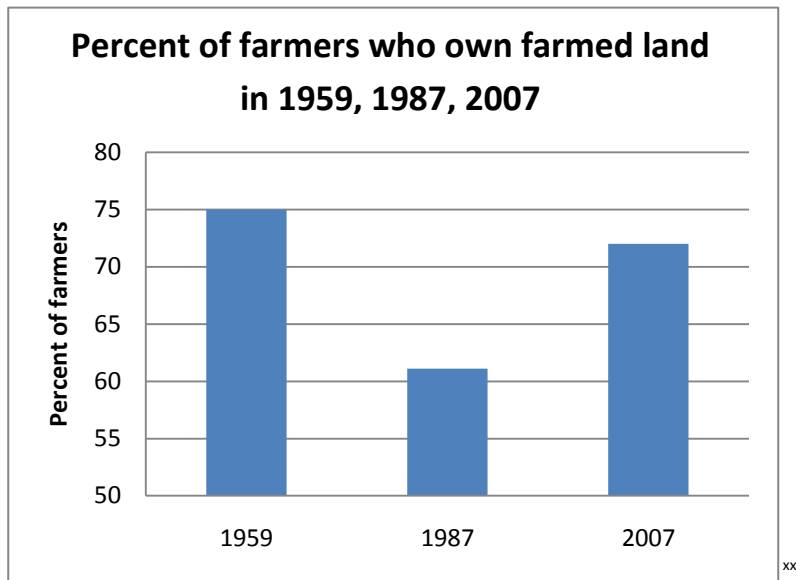
A few major markers illustrate trends in this evolution. Since 1950, Whatcom County's total number of farms has decreased, as has its total acreage in agriculture. From a high of nearly 210,000 acres in 1950, farmland dropped to just over 100,000 acres by 2007.^{xvi} The average size of farms has increased over this period. Since 1950, a limited number of farms have grown much larger, mid-sized farms have all but disappeared, and the County has seen a growth in the number of small farms.





While agriculture has been a major economic feature of Whatcom County for decades, many farm families earn income off the farm. Even in the 1950s, when records about on-farm income were first kept, over one-half of farm families gained more income from off-farm work than they received from on-farm production, and nearly 60% of the principal farmers within a farm family worked off the farm as well. In 2007, 72% of farmers worked off the farm, and 55% of farm families earned their primary income from off-farm sources.^{xxi}

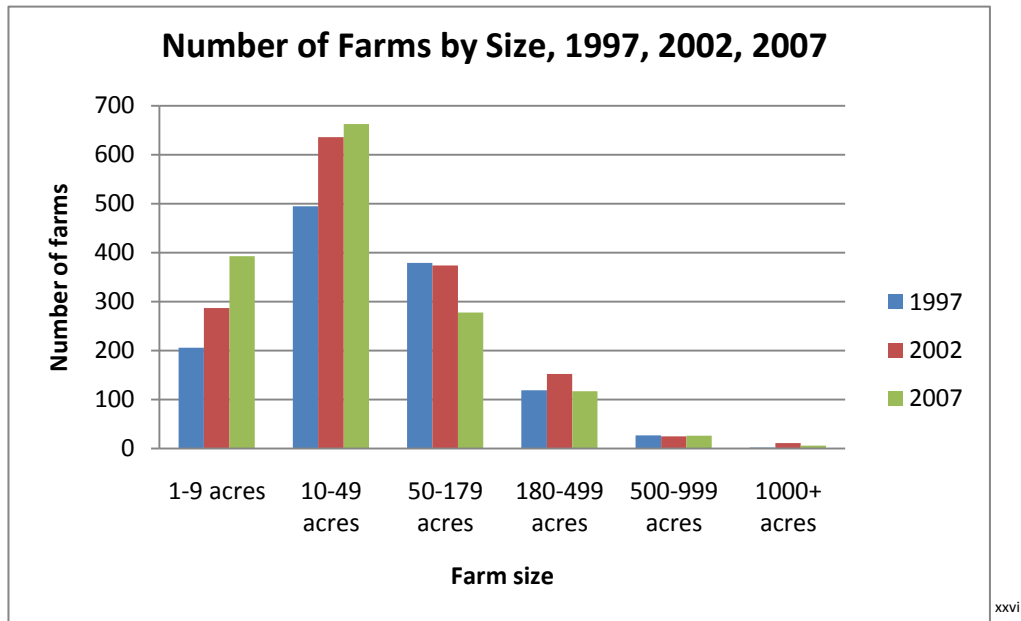
Land tenure (owning land that is farmed) has increased since 1987, but is slightly less than in 1959. Land tenure can indicate the stability of a farm and the farmer’s ability to continue farming.



Current Agricultural Demographics in Whatcom County

As of the 2007 Agricultural Census, Whatcom County's farm products had a market value of over \$326 million, placing the County first out of 17 counties in Western Washington. Dairy and powdered milk products accounted for \$186,491,000 (57%) of market value; fruits, nuts, and berries accounted for \$66,788,000 (21%). Other important industries include cattle and calves (7%), nursery growers (5%), poultry and eggs (4%), and vegetables (3%), including seed potatoes.^{xxiv}

The number of farms stayed fairly consistent from 2002 (1,485 farms) to 2007 (1,483 farms), but the average farm size decreased from 100 acres to 69 acres. In 2007, farm size ranged from less than 10 acres to more than 1000 acres. Most farms fell within the 10-49 acre range; the median farm size was 20 acres.^{xxv}



Agricultural Tourism and New Markets

Some farms in Whatcom County have added value to their businesses by hosting agricultural tourism. Examples of this sort of venture range from apple farms with self-guided tours to pumpkin festivals to animal petting areas to u-pick operations. At least 14 farms in Whatcom County fit within an agricultural tourism category, with more offering activities each year.^{xxvii}

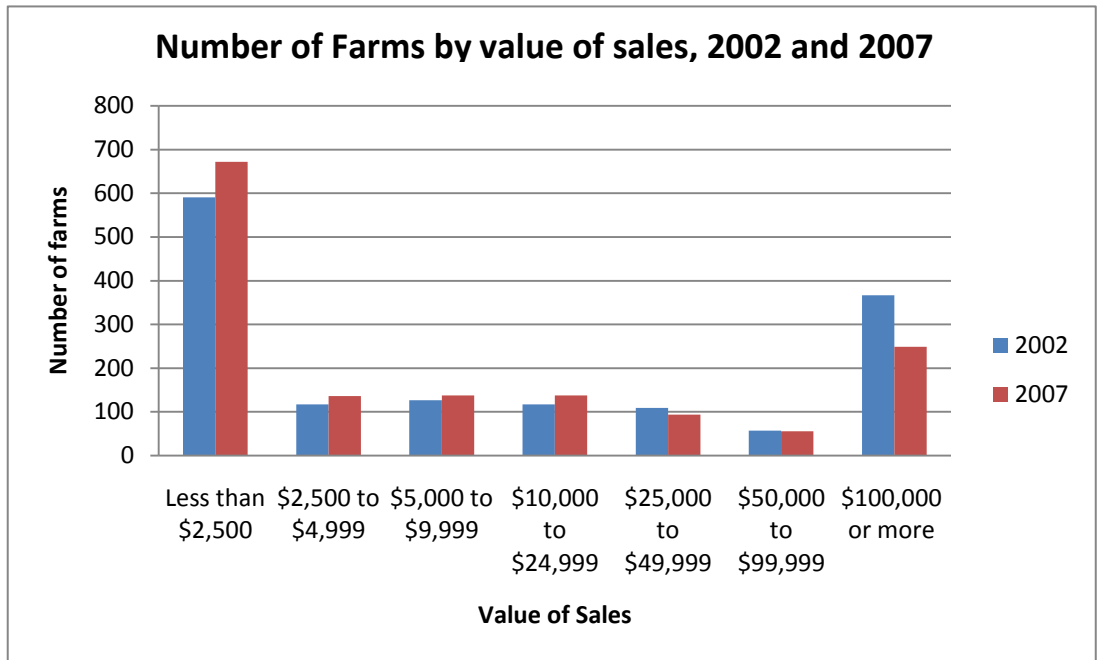
Sustainability certifications have been embraced by some farms to differentiate them within the marketplace. In 2007, 74 farms grew products organically on 2,659 acres, with over \$4 million in sales; 36 farms growing organically had sales over \$5,000, and 31 had sales below that level.^{xxviii} Other sustainable practices used by farmers in Whatcom County include energy production on the farm (24 farms), rotation or management-intensive grazing (379 farms), and other conservation methods (396 farms).^{xxix}

Direct marketing of farm products increased in Whatcom County from 2002 to 2007. In 2002, 190 farms sold less than \$2 million of product direct-to-consumer; in 2007, 273 farms sold almost \$4 million worth of product directly to consumers. In 2007, 22 farms marketed products through Community Supported Agriculture (CSA) programs and 89 farms produced and sold value-added products.^{xxx}

Farm Income

Of farms in Whatcom County, 37% had net financial gains in 2007 compared with 50% in 2002. The number of farms receiving government payments other than CREP (Conservation Reserve Enhancement Programs) increased

over those 5 years—164 in 2002 and 198 in 2007—but the average amount these farms received was much lower in 2007 (\$4,504 in 2007 vs. \$23,451 in 2002).^{xxxii}



The largest category of farms in both 2002 and 2007 was farms with sales below \$2,500; this encompasses many very small farms in the County, including those operated as hobby type farms. The number of farms with sales between \$2,500 and \$24,999 increased from 2002 to 2007, and the number of farms earning over \$100,000 decreased in that period. These figures parallel the increase in quantity of small-scale farms, which may not make large amounts of income, and the decrease in the value of sales from dairy farms, which historically had been those making the most net income.

The average net cash farm income of farm operators in 2007 was \$44,860, only 82% of what it had been in 2002 (\$54,591).

Farmer Profile

In 2007 the average Whatcom County farmer was 55.5 years old; 82% of farmers were male, and the overwhelming majority classified themselves as white. Less than half (45%) of these farmers have their primary occupation listed as farming.^{xxxiii}

Labor

Farm workers in Whatcom County contribute a great deal to the farming community and to the economy of the County. The Census of Agriculture gives numbers for hired farm labor in 2007: 481 farms hired 6,830 farm workers with a payroll of over \$47 million. Eighty-four farms reported using migrant farm labor; none of these farms report using labor contractors. Over 1,500 workers were employed for 150 days or more on these farms.^{xxxiv} (Numbers are probably incomplete due to issues surrounding undocumented workers.)

Farmer Support Programs and Agencies in Whatcom County

Washington State University, Whatcom County Extension, Agriculture Program

- Works with growers, who can bring crop samples to agriculture professionals for analysis.
- Employs staff to help resolve crop issues with growers.
- Engages in agricultural research. Current research includes: Spotted Wing Drosophila monitoring and management; cultural control methods for brassica flea beetles on organic farms; apple tip midge monitoring using a novel pheromone; developing scouting guides for small fruit growers; surveying incidence of *Phytophthora rubi* in raspberry plantings; and on-farm energy production. This program also collaborated with researchers throughout the state on agricultural programs.
- Hosts an annual Small Fruit Workshop in December offering approximately 20 talks on topics ranging from insect pest/disease control to marketing issues.
- Hosts the Cultivating Success class, “Sustainable Small Acreage Farming and Ranching,” which has been taught in 2006, 2007, and 2008, with over 70 students completing the program by 2009. Several of these students have started or improved existing small farms.

Whatcom Conservation District

- Works with landowners and farmers to manage natural resources in Whatcom County.
- Manages the Conservation Reserve Enhancement Program (CREP), which provides landowners financial incentives to establish buffers along creeks and ditches.
- Helps farmers create farm conservation plans, dairy nutrition management plans, and best management practices.
- Puts on programs for small farmers, such as the Small Farm Expo and Small Farm Management workshops.

Whatcom County Farm Friends

Organized by the following objectives:

- To foster fair and fact-based public policies for the agricultural industry.
 - To preserve at least 100,000 acres of agricultural farmland in the County.
 - To improve the economics of farm operations to assure sustainability and prosperity.
 - To define succession plans and programs with farmers to assure the continuance of farming and farmland.
 - To build County-wide communities of support for agriculture to create harmony as the County continues to grow.
 - Created the award winning “Farming For Life” Exhibit, which is displayed each year at the Northwest Washington Fair.
- Supports the Farmers Growing Trees for Salmon program.
- Partners with USDA Wildlife Services to control nuisance birds, primarily starlings, in agricultural land.

- Works with other agencies on water rights issues for farmers.
- Partners with Sustainable Connections to produce the annual Whatcom Food and Farm Finder.

Sustainable Connections

- The Food & Farming Program works on informing, empowering, and providing resources to producers and buyers; making connections between farmers, institutions, retailers, and restaurants; and raising awareness of local farms and helping consumers Buy FRESH!
- The Food & Farming Program produces the Whatcom Food and Farm Finder as a guide to local farm and food products.
- The Food to Bank On program provides new farmers with education, experienced farmer mentors, and pays wholesale market prices each week for a set amount of produce delivered to a food bank.
- Trade meetings are held twice per year to link farmers with buyers from restaurants, cafeterias, and markets.
- Chef Farm Tours introduce chefs to local farms and establish market relationships.
- The Eat Local Every Week Campaign encourages eaters to choose local foods.

Kulshan Community Land Trust (KCLT)

- A new program called “Affordable Access to Land for Farming” will entail KCLT’s owning farmland and giving very long-term leases to farmers. As with KCLT’s home ownership program, farmers will own their home on a piece of farmland while the Land Trust maintains an easement on the land to guarantee no future development will occur and that the land will remain permanently affordable for agriculture. To acquire land, KCLT will work with willing landowners to exchange the appraised value for a tax break.

Whatcom Farm Incubator Project

- This is a joint project between Sustainable Connections and Kulshan Community Land Trust to provide land, education, and mentoring for new farmers with the goal of increasing the number of successful sustainable farmers in Whatcom County.
- This project is in the planning stage at this time.

Farm Fund through the Community Food Coop

- The farm fund gives money to projects that support the growth of sustainable agriculture in Whatcom County.
- Historically, funds have supported the Food to Bank On program, Bellingham Farmer’s Market, Ferndale Farmer’s Market, Whatcom Fresh, Seed Saving Workshops, and the Just Food Program through Growing Washington.
- In 2009, funds have been awarded to: the Bellingham Food Bank Food Bank Farm; Community to Community Development to organize a Latino-based CSA; Kulshan Community Land Trust for seed money for their Affordable Access to Land for Farming program; and Whatcom Community Television and Communications to develop a radio pilot about agriculture in Whatcom County.

Community to Community Development

- The Loomis Trail Road Farm is a cooperative farm for training Latino farm workers in organic production methods.
- Community to Community Development holds culturally appropriate trainings and encourages farm workers to bring traditional methods of farming from Mexico to Whatcom County.

Community Education about Agriculture in Whatcom County

Community members not directly associated with farming in Whatcom County have many opportunities to learn about local agriculture. Organizational outreach targets two populations: school-age children and adults.

School-age education

- Since 1993, *Whatcom County Farm Friends* holds the “Milk Maker’s Fest” each spring at the Northwest Washington Fairgrounds in Lynden. First graders from all Whatcom County school districts are invited to participate, with an average of 2,000 students attending annually. Students learn about different aspects of a dairy operation, including cow and calf health and the circle of farming, which explains how everything on the farm is interconnected.^{xxxv}
- *Common Threads Farm* on Lummi Island provides educational opportunities on the farm for children ages 4-12. Children are involved with all aspects of farm work, including planting, harvesting, weeding, collecting eggs, and feeding animals. The farm also works with a few Whatcom County private and public elementary schools to provide on-farm education.^{xxxvi}
- *4-H* is a program coordinated by WSU Extension, with the Whatcom County 4-H program coordinated by WSU Whatcom County Extension. 4-H clubs are supervised by an adult leader who has subject-area knowledge. Livestock is a popular topic, but activities can also include gardening or natural resources stewardship. Students from middle school through high school are involved with 4-H, but the majority are in the 5th through 7th grades.^{xxxvii}
- *Future Farmers of America* (FFA) is a program operated through County high schools with a paid staff position coordinating the program at each school. The students involved in FFA are generally enrolled in agriculture classes. They participate in career development events, community service projects, raising animals, and leadership opportunities. FFA programs are available at Mt. Baker, Ferndale, Meridian, Lynden Christian, Lynden, and Nooksack high schools.

Adult education

- The award winning “Farming For Life!” Exhibit is a production of *Whatcom Farm Friends* and is displayed each year at the Northwest Washington Fair. The 4,000-square-foot exhibit emphasizes the impact agriculture has on everyone in the community. Photo essays and text panels describe Whatcom County agriculture and the beneficial products it provides, the importance of the economic base it creates, and its contributions to environmental protection and the County’s quality of life.^{xxxviii}
- *Common Threads Farm* offers short workshops for adults, including sessions on backyard poultry and how to work with kids in the garden.^{xxxix}

- *Sustainable Connections* operates several campaigns to promote consumption of local agriculture. For several years, they have held an “Eat Local Week” and encouraged consumers to purchase from local producers. In 2010, they are promoting “Eat Local Every Week,” with a weekly program in which restaurants offer menu items made entirely from local ingredients.^{x1}

Conclusion

The United States Department of Agriculture provides a great deal of statistical and demographic data about farms, crops, and farmers in Whatcom County. So too do the multitude of not-for-profit and state-based organizations that work with the agricultural industry. By analyzing changes over time (most from data recorded from 1959 to the present), we can learn about the trends that Whatcom County agriculture has followed.

Highlights from this chapter include:

- In Whatcom County from 1900 to 1910 farm processing changed dramatically from almost everything being processed on farms to almost everything being processed off of farms.
- Whatcom County’s staple crops have varied somewhat since the early 1900s, although dairy and berries have been a constant.
 - County farms produced a wide range of crops in the first half of the 1900s, expanding from subsistence growing to production for export.
 - WWII marked a shift in agricultural production, with many farms producing dairy products and eggs for contribution to the war effort. Outside of this production, crop land that had been growing products to be shipped internationally reverted to subsistence agriculture, which had been the norm in the early 1900s.
 - In the 1950s, dairy, poultry, and egg production made up about 90% of agriculture in Whatcom County.
 - The poultry industry’s collapse in the 1960s left room for the dairy industry to expand to 90% of Whatcom County’s agriculture, putting it in the top 3% of dairy counties in the nation.
 - Berry crops have been grown in Whatcom County throughout all other changes, and the berry industry makes up a significant portion of agriculture to this day.
- The number of acres in farmland has decreased significantly in the last half-century, going from 210,000 in 1950 to just over 100,000 in 2007.
- Since 1950, a limited number of farms have grown much larger, mid-sized farms have all but gone away, and the County has seen a growth in the number of small farms.
- In 2007, 72% of farmers worked off the farm and 55% of farm families earned their primary income from off-farm sources.
- The rapidly rising cost of land has likely played a large role in the increasing number of farms that rent rather than own their land.
- The percentage of farms that earned positive net income decreased from 50% in 2002 to 37% in 2007.

Agriculture in Whatcom County has long been a strong and significant element of the local economy and way of life. Challenges with farm profitability on account of external price controls and the rising cost of land have led some farms to reorganize—some shrunk in size, others embraced certifications and methods of growing that led to market advantages, and yet others diversified their products.

What is missing from this CFA is a market analysis of new opportunities for agriculture that would continue to push forward this diversification and give farmers the information they need to create new market strategies. Support for such research is currently growing, and a number of organizations are working to understand what will benefit Whatcom County farms most in the next decade and beyond.

i Whatcom Farm Friends: Farm Facts Overview: <http://www.wcfarmfriends.com>

ii Ibid.

iii United States Department of Agriculture, News Release, December 17, 2009, “USDA Announces New Dairy Economic Loss Assistance Payment Program to Provide Financial Relief to Struggling Dairy Producers.” Retrieved from: <http://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=2009/12/0619.xml>

iv USDA Census of Agriculture: <http://www.agcensus.usda.gov>

v USDA Census of Agriculture: <http://www.agcensus.usda.gov>

vi Ibid.

vii Ibid.

viii Ibid.

ix For more information about the small grains breeding program, see: <http://plantbreeding.wsu.edu/index.html>

x Ibid.

xi Washington State Legislature, Chapter 16-325 WAC: <http://apps.leg.wa.gov/wac/default.aspx?cite=16-325&full=true>

xii USDA Census of Agriculture: <http://www.agcensus.usda.gov>

xiii Oxbo[®] International Corporation, produces Korvan[™] blueberry, raspberry, and blackberry harvesters: <http://www.oxbocorp.com>

xiv Littau Harvester: <http://www.littauharvester.com>

xv USDA Census of Agriculture: <http://www.agcensus.usda.gov>

xvi Ibid.

xvii Ibid.

xviii Ibid.

xix Ibid.

xx Ibid.

xxi Ibid.

xxii Ibid.

xxiii Ibid.

xxiv Ibid.

xxv Ibid.

xxvi Ibid.

xxvii Ibid.

xxviii Ibid.

xxix Ibid.

xxx Ibid.

xxxi Ibid.

xxxii Ibid.

xxxiii Ibid.

xxxiv Ibid.

xxxv <http://www.wcfarmfriends.com>

xxxvi <http://www.commonthreadsfarm.org>

xxxvii http://whatcom.wsu.edu/4-h/4-h_youth.htm

xxxviii <http://www.wcfarmfriends.com>

xxxix <http://www.commonthreadsfarm.org>

xl <http://sustainableconnections.org>