



State Snapshot

Agriculture has been a major industry in Washington, one that contributes extensively to Washington's economy and society by generating income and employment on 33,000 separate farms in all of Washington's 39 counties. In 2007, cash receipts at the farm level were a record \$8.4 billion and the net income of Washington farmers was a record \$2.8 billion. Overall, agriculture boosted Washington economic activity by \$21 billion in 2007.¹

Washington agriculture is characterized by diversity of products and by the importance of products in the national landscape. Sixteen of the top 50 commodities in the state were ranked first or second in farm gate value of sales among all U.S. states. The top five commodities (accounting for nearly 70 percent of the value of state production) in Washington are tree fruit, grains, milk, potatoes, cattle. Additionally, Washington is the third largest producer of specialty crops in the nation.²

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The quality and safety of Washington's agricultural products continues to raise the state's reputation around the world.

Washington State Department of Agriculture

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Washington's agricultural industry varies east and west of the Cascade Mountain Range. Farms to the west tend to be small, focusing on dairy products, poultry, and berries. Farms to the east are large with wheat, barley, potatoes, fruit, and vegetables being the primary commodities produced.³ Over 81 percent of Washington's 121,544 agricultural workers are in rural eastern Washington.⁴ The average farmer: operates a family farm; has a farm spanning 426 acres and worth \$623,333; owns farm machinery and motor vehicles valued at \$99,692; manages livestock, poultry, and products valued at \$48,636; generates four to six dollars for every one dollar of agricultural raw product; spends \$338 per day to cover expenses; has a net income of \$33,925; owns land worth \$1,650 per acre; and is a 54 year old male. Sixteen percent of Washington's farms are owned by women.⁵

Washington's Agri-Business cluster is facing challenging times ahead. The loss of farmland is affecting growth, particularly in the Puget Sound region. Additionally, farm owners are having a difficult time attracting younger workers. Fortunately, county governments are taking action to help ensure that Agri-Business is as successful in the future as it has been in the past.⁶

¹ (Washington State Department of Agriculture, 2009)

² (Washington State Department of Agriculture, 2009)

³ (National Agriculture Statistics Service, 2008)

⁴ (Labor Market and Economic Analysis, 2004)

⁵ (National Agriculture Statistics Service, 2007)

⁶ (Evergreen Funding Consultants, 2004)

Snohomish County Snapshot

Agri-Business Defined

The North American Industrial Classification System (NAICS) is the current industry classification standard in the United States. NAICS groups several industries into Agri-Business: agriculture, forestry, fishing, and hunting. In Snohomish County, agri-business is centered on crop and animal production. Thus, forestry and hunting are not included in this report.⁷ The table below depicts 2007 NAICS codes for the Agri-Business cluster.⁸

NAICS Code	Industry Title
1111	Oilseed and grain farming (soybean, oilseed, dry pea, bean, wheat, corn, rice, other grain)
1112	Vegetable and melon farming
1113	Fruit, tree nut farming (orange, citrus, apple, grape, strawberry, berry, tree nut, other non-citrus)
1114	Greenhouse, nursery and floriculture production (mushroom, food grown under cover, nursery, tree, floriculture)
1119	Other crop farming (tobacco, cotton, sugarcane, hay, sugar beet, peanut, other)
1121	Cattle ranching and farming (beef, dairy)
1122	Hog and pig farming
1123	Poultry and egg production (chicken egg, broilers, turkey, poultry hatcheries, other poultry production)
1124	Sheep and goat farming
1141	Fishing
1151	Support activities for crop production (cotton ginning, soil preparation, crop harvesting, labor, management)
1152	Support activities for animal production

Employment in Agri-Business

The number of workers in the Snohomish County Agri-Business cluster totaled over 2,656 as of September 2009. Employment within the cluster dropped nearly four percent from 2008⁹. One explanation for decline in employment is that agricultural workers are moving to higher paying jobs in other clusters, such as construction and manufacturing. Farmers are in great need of qualified workers but are often unable to offer competitive wages. Farmers would need to offer at least \$12 per hour to remain competitive with other industries. It is vital that we put systems in place to increase interest in agricultural employment so that local demand for products can be met.¹⁰

⁷ (U.S. Census Bureau, 2007)

⁸ (North American Industry Classification System, 2007)

⁹ (Economic Modeling Speciliasts, Inc, 2009)

¹⁰ (Snohomish County Office of Economic Development, 2008)

The top ten occupations in the Agri-Business cluster are listed in the table below.¹¹

SOC Code	Occupation Title	Jobs	% of Industry
11-9012	Farmers and ranchers	967	36%
45-3011	Fishers and related fishing workers	431	16%
45-2092	Farm workers and laborers	389	15%
11-9011	Farm, ranch, and other agricultural managers	339	13%
45-2093	Farm workers, farm and ranch animals	46	2%
39-2011	Animal trainers	44	2%
45-2091	Agricultural equipment operators	41	2%
39-2021	Nonfarm animal caretakers	35	1%
11-9199	Manager, all other	33	1%
43-3031	Bookkeeping, accounting, and auditing clerks	26	1%

In Snohomish County, most employees in Agri-Business work as farmers and ranchers.¹² This is consistent with state trends; nearly two-thirds of agriculture employment in Washington is in crop production. The Agri-Business cluster represents a relatively small proportion of all jobs, with less than one worker in 100 workers employed in agriculture in Snohomish County. Despite the smaller nature of the cluster, Agri-Business is considered important in many areas of western Washington.

Agri-Business Spending and Activity

Agriculture was the primary industry in Snohomish County in the 1800s. Early settlers who arrived in the Puget Sound in the 1860s marveled at the fertile river valley soil and mild climate, ideal conditions for farming. The farms they prepared provided a good lifestyle for their families, as well as food needed for other residents. Agriculture has been one of the defining economic cornerstones in Snohomish County.¹³

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Agriculture is part of the social, economic, and environmental fabric of Snohomish County. It is emblematic of the enduring values of this community.

*Snohomish County Executive
Aaron Reardon*

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Fast forward over 200 years and agriculture is still a key industry in Snohomish County – a \$154 million industry. Small farms dominate Snohomish County, where the average farm size is eighteen acres. Small-scale, niche farming is important to Snohomish County's Agri-Business industry. More than 200 new farms started between 1997 and 2002. However, large farms comprise most of the economic output and are therefore an essential component of the future of Snohomish County agriculture; 58 percent of

¹¹ (Snohomish County Workforce Development Area, 2007)

¹² (Economic Modeling Specialists, Inc, 2009)

¹³ (Snohomish County, 2005)

the 1,600 farms in Snohomish County accounted for 62% of county-wide farms sales in 2002 (the most recent year for which data is available).¹⁴

There are nearly 1,600 farms in Snohomish County of which 70 percent are family or individually owned.¹⁵ Farms represent approximately 77,000 acres of designated farmland; this reflects a twelve percent increase over previous years. The average size of farms also increased six percent from 44 to 46 acres each. Of course, agriculture has changed in the past 200 years in more ways than land designation. Agriculture in Snohomish County used to focus on commodity crops; now agriculture produces a more diverse range of products. Snohomish County is ranked first in the state in annual milk production per cow, second in the state in broiler chicken production, and third in the state in strawberry production.¹⁶

It is important to understand agriculture as it fits into to the larger system of economic development and managed growth. Statistics often portray a decline in agricultural products and production. For example, 2007 statistics show a decline in cattle in Snohomish County. However, farm land has been transformed into commercial land meaning there are fewer dairy farms to utilize. In actuality, there are more cattle per farm than in past years, showing increased productivity in this area. Having more quality cattle per farm means a greater need for quality hay, which means local hay farmers profit from this increased demand. Community growth plans must be taken into account when reviewing agricultural statistics; otherwise this vital industry is inaccurately represented as one with little future potential.¹⁷

Exports tend to drive agriculture more than they do in many other industries. Since exporters often list the state where the export originated rather than the state of production, Washington is often given credit for exports which were grown or produced elsewhere. While it is difficult to estimate the impact of agricultural exports, it is fair to estimate that Washington exports about one-third of its food and agriculture production. This implies that exports support about one-third of all jobs related to the growing and processing of foods in Washington State. Washington exports most of its agriculture products to the following ten countries: Japan, Canada, Taiwan, Europe, China/Hong Kong, Korean Republic, Philippines, Mexico, Thailand, and Indonesia. Japan accounts for over 30 percent, or nearly \$8 billion, of all agricultural exports. Japan, Canada, and Taiwan account for almost two-thirds of all agricultural exports. The outlook for both exports and imports of agricultural products is optimistic through 2015.¹⁸

¹⁴ (Snohomish County, 2009)

¹⁵ (Snohomish County Office of the Executive, 2007)

¹⁶ (Snohomish County, 2008)

¹⁷ (Snohomish County Office of Economic Development, 2008)

¹⁸ (Labor Market and Economic Analysis, 2004)

The business of farming has changed in recent years. Agriculture once focused primarily on commodity crops. Now, Agri-Business includes a diverse range of local products such as oil seed crops, nurseries, produce for local restaurants and grocery stores, grass-fed beef, hay production, crops for seed production, and value-added products. This diversity results in businesses for other clusters. For example, retail (feed stores, grocery stores), manufacturing (farm equipment), medical and health services (veterinarians), tourism & hospitality services (restaurants, agri-tourism), construction (farm construction), and business services (marketing, processing, transportation).¹⁹ Large-scale retail stores are relying more on locally grown goods. Wal-Mart expects to sell \$400 million worth of locally grown produce by the end of 2008, making it the largest player in the market. Chipotle Mexican Grill, Inc. pledged to purchase 25 percent of at least one produce item for each of its stores from small and mid-sized farms located within 200 miles. Whole Foods Market purchased 22 percent of its produce locally in 2007, up from nineteen percent in 2006.²⁰ While Agri-Business may be a small cluster in terms of employment, it contributes considerably to the success of other clusters.

Local government has long been a champion of Snohomish County Agri-Business, and joins forces with leaders and experts in the Agri-Business community to promote the continued growth of farming during the annual Focus on Farming Conference. The event started as a way to bring farmers together to evaluate the agriculture economy, help identify opportunities for future practices, and to begin a process of streamlining regulatory barriers farmers faced. Nearly 300 people attended the first conference, held at the fairgrounds in Monroe five years ago. Five years later, the conference has moved to the Lynnwood Convention Center and includes speakers from across the country.²¹

In addition to a strong history of Agri-Business and the successful Focus on Farming Conference, a new agricultural report will spur regional farming opportunities. In 2009, Snohomish County Executive Aaron Reardon released the community developed Agricultural Sustainability Project report, a 325-page report expected to be the driving force behind the expansion of Snohomish County's agricultural opportunities. The report is the result of farmers, agricultural agencies, advocates, and local government coming together for the preservation and economic prosperity of Snohomish County's farm industry, and marks an important point toward positive and far-reaching efforts that support local agriculture. Among new ideas included in the report are: creation of a year-round public farmers' market; a no-net-loss farmland initiative; the processing and distribution of locally produced foods; expansion of current biofuel production and use; organization of a working group to analyze the agricultural land mapping contained in the report; mapping of salmon habitat restoration priority areas; and a review of local, state, and federal regulations that deal with farmland protection and restoration projects.²²

¹⁹ (Snohomish County Office of Economic Development, 2008)

²⁰ (Associated Press, 2008)

²¹ (Snohomish County Business Journal, 2008)

²² (Snohomish County Business Journal, 2009)

Snohomish County Outlook

Agri-Business Forecast

Data forecasts a decline in the number of workers in this industry in the next six years, as shown in the table below.²³ (NAICS code 11AO includes NAICS codes 1111-1124 listed in Table 1. NAICS does not break down the cluster for projection purposes, thus it is not possible to provide details about growth or decline for each specific kind of crop and animal production within the industry.) Recognizing that the Agri-Business cluster is vital to the health and future of Snohomish County, Snohomish County government has set a course to enhance and revitalize the County's agricultural economy through the next century, with the hope of seeing growth forecasts in the near future.

NAICS Code	Industry Title	2009 Jobs	2015 Jobs	% Change	Earnings Per Worker
11AO	Crop and Animal Production	1,786	1,707	-4%	\$23,039
1141	Fishing	519	304	-41%	\$74,284
1151	Support Activities for Crop Production	176	167	-5%	\$25,591
1152	Support Activities for Animal Production	174	126	-28%	\$19,111
		2,656	2,305	-13%	\$32,968

Three major trends affect agriculture growth: 1) lack of growth in demand for agricultural products; 2) consolidation of retailers of agricultural products; and 3) continued tightening of environmental, health, and safety standards. Farmers compete with fad diets advising against particular products (i.e. potatoes and wheat), large retail stores selling lower cost products imported from other regions, and people expressing concerns about the health and safety of food processing and products.²⁴ Fortunately, Snohomish County has not seen these trends affect demand or production. Locally grown agricultural products are in demand and retailers specializing in these crops are expanding. Future trends may, in the short-term, lead to decline in Agri-Business. However, in the long-term innovative ideas and sustainable practices are expected to pave the way to growth in this cluster.²⁵

The figure below indicates that the Agri-Business industry (called Agriculture, Natural Resources, and Mining in the figure) is the only industry in Snohomish County forecasting decline in the number of workers.²⁶ Despite this decline, Earnings per Worker is forecasted to be higher than Earnings per Worker in other industries.

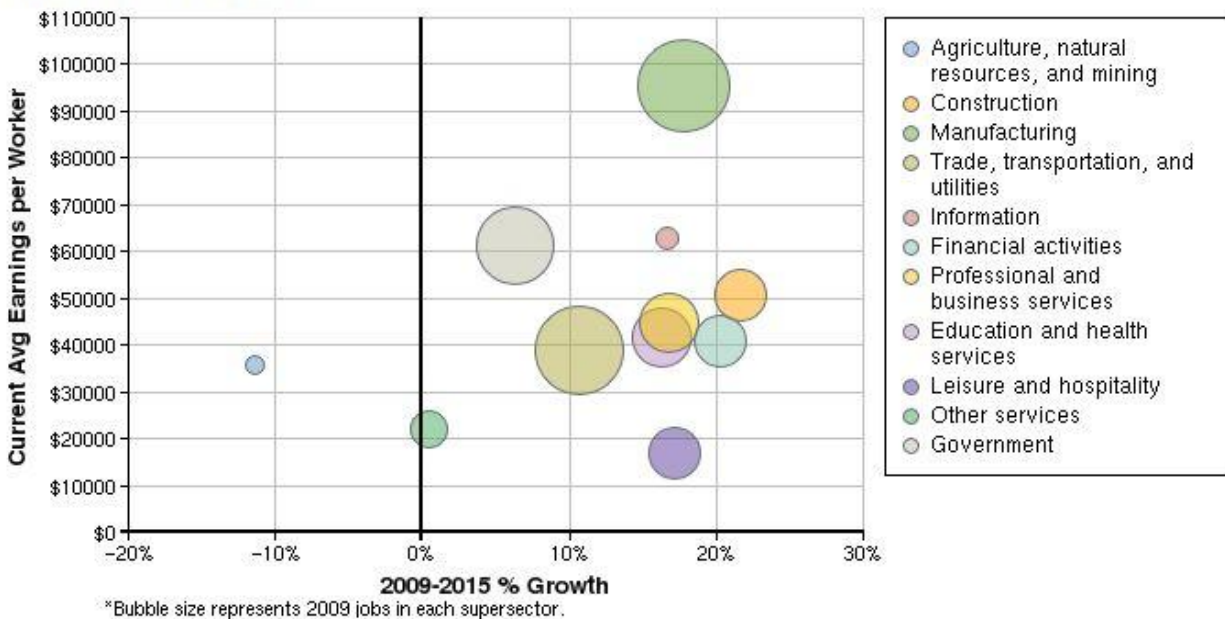
²³ (Economic Modeling Specialists, Inc, 2009)

²⁴ (Labor Market and Economic Analysis, 2004)

²⁵ (Snohomish County Office of Economic Development, 2008)

²⁶ (Economic Modeling Specialists, Inc, 2009)

2009 - 2015 Size and Growth



Training and Educational Needs

Agri-Business workers tend to be older relative to workers in other clusters. Data indicates greater potential retirement impact on the Agri-Business cluster than on other clusters. In addition to a high retiring population, there are few young farmers to fill the pipeline. Farming, until recently, has been viewed as a dying business, with land too expensive and a poorly perceived return on investment. The federal government has seen the need to increase the number of new farmers and has initiated a grant program for new and beginning farmers and ranchers to assist with purchases of land and equipment.

Washington State University has responded to the need for new farmers by offering a degree program in organic agriculture, with coursework offered through its Snohomish County Extension office. Through its extension branch, Washington State University manages a local 4-H program which is active in reaching out to K-12 youth. Other programs are focused on in-school and after-school environmental enrichment, master gardening, nutrition and food, forestry, and training teen ambassadors to promote 4-H to middle school students.²⁷

Washington State University, whose degree program in organic agriculture was the first in the country, offers the nation's first online certificate in organic agriculture. The online program's first course, Soils 101: Organic Gardening and Farming, launched in May 2008. Other courses focus on topics ranging from economics and resolving environmental conflicts to ecological soil management and crop growth and

²⁷ (Washington State University, 2008)

development. The program includes a professional internship in organic agriculture.²⁸ These kinds of efforts will increase interest in the Agri-Business cluster and help fill the career pipeline with skilled, talented, and enthusiastic new workers.

For those interested in agricultural entrepreneurship, Washington State University's Snohomish County Extension office offers a 12-week award-winning course in cultivating success as an Agri-Business entrepreneur. The course was created in response to the increasing demands of a health-conscious culture that cares about things such as local produce, naturally-raised meats and fibers, and organically-grown herbs. The course is suitable for those hoping to start and sustain a profitable small farm or agriculture enterprise, as well as current growers wanting to enhance existing operations. Graduates gain skills in business planning, direct marketing, and financial and legal issues, and hear from guest speakers including bankers, accountants, attorneys, and local growers who are models for sustainable agriculture in their farming and marketing practices.²⁹

Agri-Business can also look to its current entry-level workforce to meet future pipeline needs. Relative to the general entry-level working population, Agri-Business workers tend to be young, single males without a high school diploma. Many have little fluency in English and have low levels of formal education. Despite these obstacles there is evidence that entry-level workers can greatly improve their position with work experience.³⁰ With additional education and training, and English as a Second Language courses if necessary, these workers can and do move into higher level positions. If a worker is seeking to move up in Agri-Business, becoming a supervisor or manager is a logical next step. There are knowledge, skills, and abilities the worker would need to excel as a supervisor or manager. These include: knowledge in personnel and human resources, administration, and management; skills in training, writing, math, public speaking, coordination, critical thinking, and persuasion; and abilities in written comprehension, oral expression, deductive reasoning, and problem sensitivity.³¹ Transition into a supervisory or management position increases wages from an average of \$8.07 per hour to \$18.15 per hour.³² Given the current demand for skilled workers to remain within the cluster, and the desire among many to train people for higher skill and higher wage jobs, it would be beneficial to direct increased efforts to helping entry-level workers advance up the Agri-Business career tree.

Once established in the Agri-Business cluster, individuals can receive continued support and training from organizations such as the Northwest Agriculture Business Center (NABC). The NABC provides local

²⁸ (Snohomish County Business Journal, 2008)

²⁹ (Washington State University, 2008)

³⁰ (Labor Market and Economic Analysis, 2004)

³¹ (Economic Modeling Specialists, Inc, 2009)

³² (O*NET, 2008)

farmers with skills and resources necessary to successfully enter into and complete in local agriculture markets.³³

Individuals who continue to follow an Agri-Business career tree can fare well in the cluster. A 2008 Washington Department of Agriculture job posting for an organic program inspector shows a competitive salary of up to \$3,653 per month. Desirable qualifications include a Bachelor's degree in environmental, physical, or natural sciences and one year of experience.³⁴ A person starting his/her career as an entry-level worker has the potential to move into a high level position with the right combination of education and experience. It is critical that such career trees be promoted so that Agri-Business attracts more employees who are trained for jobs in the cluster, are interested in moving up within the cluster, and are dedicated to the cluster itself.

Innovation and Entrepreneurship in Agri-Business

Biofuels and oilseed crops are a new area of agricultural activity for Snohomish County and represent the latest in innovation and entrepreneurship. In September 2008, County officials dedicated its new \$1.25 million Cathcart Dryer Facility near Snohomish. Just days after the dedication ceremony, a local farmer began trucking in the first of 400 acres of seed to be dried and crushed on its way to being refined into an alternative fuel source. The Cathcart Dryer Facility is a result of almost four years of collaboration between county government and the farming community to develop new markets for locally-grown products, while at the same time reducing the county's dependence on foreign oil and petroleum-based diesel emissions. By 2014, the county hopes to grow enough seeds to produce 240,000 gallons of biodiesel to power the diesel portion of its fleet of 1,300 trucks, automobiles, and heavy equipment. One of the most unique aspects of the Cathcart Drying Facility is its power source. Methane gas is piped from a sealed county landfill across an internal road, a portion of which is used to power a 15-ton continuous batch dryer.³⁵

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Today's farmers are marketers, managers, and mechanics. They're scientists, business professionals, and innovators. They're experts on crops, animals, pests, and regulations. They plan festivals, create corn mazes, and invite the public to visit or stay on their farm. What would a drive in the country be like without [them]?
Snohomish County

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Snohomish County also has its first biogas plant, designed to harness the methane gas in cow manure which can be turned into electricity. Local dairies send cow manure to the plant through underground pipes, and as a result the plant has produced enough energy to power hundreds of homes continuously.

³³ (Northwest Agriculture Business Center, 2009)

³⁴ (Washington Department of Agriculture, 2008)

³⁵ (Clark, 2008)

The nonprofit group behind the biogas plant, Qualco Energy, recently signed a contract to sell power to Puget Sound Energy.³⁶

In addition to participating in and leading alternative fuel efforts, entrepreneurial farmers are finding a niche in providing retail agriculture. Garden Treasures, located in Arlington, is attracting growing crowds for a variety of farm-to-table produce. Garden Treasures has been offering healthful foods to families for four years and will be expanding their store to include a gift shop and U-pick berries. Entrepreneurs are also finding success in operating Community Supported Agriculture (CSA) programs. CSA programs gives people a personal share in supporting agriculture in Snohomish County and provides them with fresh vegetables throughout the growing seasons. For a full-season share of \$425-\$650, members are able to pick up boxes each week filled with seasonal fruits and vegetables. Such programs are instrumental in keeping agriculture alive and well in Snohomish County, and in introducing locally grown produce to the community.³⁷

Another way for small farms to survive in the current economic climate is to cooperate with other small farms to attract people to the region. The recently established Red Rooster Route is a cooperative effort of a group of six farms along a mapped-out path in the Arlington/Marysville area. Each farm offers its own unique products to the public while also working with each other to promote their goods and support individual and shared projects. The cooperative provides a way for the public to see part of Snohomish County within a matter of hours and enjoy the agricultural community.³⁸

Sustainability in Agri-Business

Washington was one of the first states to have its own organic certification program. The establishment of national organic standards in 2002 paved the way for large farmers to expand their acreage of organic crops. In 2007, Washington had 81,472 certified organic acres, up 86 percent from 2004. An additional 13,183 acres were in transition, suggesting that organic acres would reach about 94,500 acres by 2010.³⁹ In 2002, 25 farms, or two percent of Snohomish County farms, reported being certified organic.⁴⁰ Going further, a small but increasingly visible fraction of production can be considered sustainable, meaning products are produced in ways that are ecologically sound, economically viable, socially just, and human to animals. The greatest demand for organic, sustainable, and locally grown foods is in the urban areas in the Puget Sound region.⁴¹

³⁶ (Smith, 2009)

³⁷ (Wolcott, From Farm to Table, 2008)

³⁸ (Dehm, 2009)

³⁹ (Washington State Department of Agriculture, 2009)

⁴⁰ (Snohomish County, 2009)

⁴¹ (Washington State Department of Agriculture, 2009)

At the same time, the Puget Sound region continues to attract new residents who desire larger homes and lots. Commercial services have spread beyond downtown areas and slowly eroded the agricultural land base. Some counties in the Puget Sound have been able to minimize fragmentation of commercial agricultural lands, but no county has been immune from non-agricultural development within designated agriculture lands. Snohomish County has been challenged by the reduction of farmland. Over the last twenty years nearly half of Snohomish County's farmlands have disappeared, despite the demand for farmland and farming outweighing available land. Many current farms are at-risk for development because they are not on designated farm land.⁴² Fortunately, Snohomish County government views Agri-Business as a critical cluster, and is pleased to report that farming is on the rebound for the first time in a generation.⁴³

Agri-Business workers themselves also care deeply about maintaining, increasing, and promoting sustainable practices. Local growers donate unmarketable produce by coordinating gleaning and donation to local food banks through the Harvest for Hunger organization. Further, regional food producers, buyers, and chefs network at the annual Farmer-Chef Connection conference.

Conclusion

Agri-Business in Snohomish County is a strong, viable, and essential cluster in the local economy. The community needs local farmers more than ever before. Agri-Business is a small industry cluster, but one with growth potential if innovation, entrepreneurship, and sustainability remain a priority. Education and training, changing perceptions, and local government support within the cluster can help ensure that Agri-Business remains a key industry cluster in Snohomish County for another 200 years.

⁴² (Snohomish County Office of Economic Development, 2008)

⁴³ (Snohomish County Business Journal, 2008)