

Agriculture's Contribution to Washington's Economy

by: Michael Brady and Justin Taylor

IMPACT Center Fact Sheet, January, 2011

Contact Information

IMPACT Center
School of Economic Sciences
PO Box 646210
Pullman, WA 99164-6210
Email: bradym@wsu.edu

Diversity Defines Washington Agriculture

Agriculture in Washington is incredibly diverse in terms of the number of crops and livestock produced, as well as production methods, thanks to a natural resource rich environment and considerable variation in growing conditions. The moist Puget Sound area is home to a significant floriculture industry. Dry and warm Central Washington contains one of the largest tree fruit production regions in the nation. Eastern Washington has some of the highest dryland wheat yields anywhere in the world. There are also extensive downstream food processing and manufacturing industries that are closely tied to agriculture employ large numbers of workers which amplifies the total economic impact of agriculture in the state. Agriculture also supports a number of related industries that provide the resources that make farming possible, such as fertilizer and seed suppliers.

Washington is home to a number of America's largest companies and the state has grown significantly both in population and economic activity in recent decades. While many other sectors are larger than agriculture they are mostly concentrated in the western part of the state. Agriculture is the central economic driver for most communities, both small and large, east of the Cascade Mountains.

This fact sheet provides a brief overview of the economic role that agriculture plays across the state. (Unless otherwise noted, data is from the IMPLAN¹ database for the year 2008). It includes not only wages and returns from

production, but also the economic activity that depends on agriculture, as well as the effect of money earned from agriculture being spent throughout the state economy. For example, the first category of activity would include the profit earned by a wheat producer and the wages paid to workers that pick fruit. Additional economic activity is attributable to agriculture even though it is not "on the farm" earnings, such as machinery sales and maintenance. The total economic impact of agriculture also includes the effect of income earned from agriculture being spent by households throughout the state economy.

The value of agricultural production in Washington is approximately \$9.5+ billion. Over 80,000 people are employed in production. The share of the total value by commodity group is shown in the chart to the right. The total economic impact of production is just over \$16.5 billion. Food processing and manufacturing industries (excluding seafood) produce output valued at \$9 billion, contribute \$1.5 billion in value added (value of outputs minus the cost of intermediate inputs), employ 18,000 people, and have a total economic impact of \$17 billion. Agriculture and forestry support industries alone employ 31,000 people that earn \$792 million in wages. Proprietors of these businesses earn \$121 million in income. See the back page for more detailed information organized by industry and location.

Agricultural Production

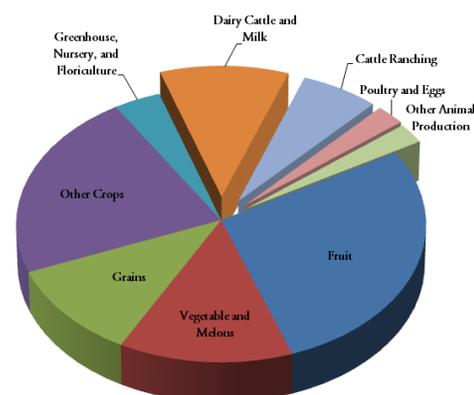
- \$9.5+ billion in production value
- 82,000 jobs
- \$1.5 billion in wages
- \$2.2 billion in proprietor income
- \$219 million in tax revenues
- \$16 billion in total economic impact

Food Processing & Manufacturing

- \$1.5 billion in value added
- 18,000 jobs
- \$1.4 billion in wages
- \$17 billion in total economic impact

Agriculture & Forestry Support Industries

- 31,000 jobs
- \$792 million in wages
- \$121 million in proprietor income
- \$1.8 billion in total economic impact



Share of total value of production by sector

PRODUCTION

Tree fruits collectively represent the largest agriculture sector by value. Washington leads the nation, by a large margin, in apple production. From 2005 to 2009 the value of the apple crop ranged between \$1 billion and \$1.7 billion annually, and was \$1.3 billion 2008. Pears, apricots, and prunes are other important tree fruits.²

The potato and wheat crops are the next largest by value and vary around \$700 million. For 2008, wheat production was valued at \$745 million while potato production was valued at \$692 million. A significant portion of the potatoes produced in Washington are inputs into the food processing and manufacturing industries in the state. Alfalfa hay, grass hay, corn for grain and silage, barley, oats, dry beans also cover significant portions of cropland.²

A number of vegetables including onions, asparagus, carrots, and sweet corn are also grown in significant quantities. Onion production is the largest at \$130 million.

Washington also contains extensive livestock operations. The value of output from the dairy industry is the largest at \$1 billion, followed by cattle ranching (\$600 million) and poultry and egg production (\$226 million). All other livestock production is valued at \$223 million.

Wine appellations in Washington are quickly gaining an international reputation. Acreage under wine grapes has increased significantly in recent years and the value of output from wineries is just under \$1 billion.

PROCESSING & MANUFACTURING

Washington supports a number of food processing and manufacturing industries that locate near major production regions. The single largest is frozen food manufacturing which produces \$500 million in value added. Fruit and vegetable processing generates \$313 million in value added, followed by animal processing (\$234 million) and dairy product manufacturing (\$154 million).

EMPLOYMENT

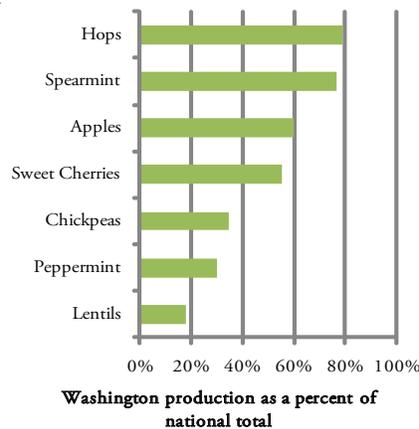
There are over 80,000 people employed directly in crop and livestock production. Among the general sectors in these industries fruit production is the largest employer (approximately 29,000). Income to employees and ownership for crop and

livestock production is just shy of \$2 billion. The agriculture support industries are a major source of employment (30,000 jobs and \$792 million in wages).

The frozen food industry is another major driver of employment (7,500 jobs and wages of \$366 million). Animal processing, slaughtering, and rendering employs 3,722 people with total wages of \$160 million. Fruit and vegetable processing employs 3,700 people that receive approximately \$170 million in wages.

SPECIALTY CROPS

Washington is one of a handful of states that produces a significant portion of the national total for a number of crops. These include apples, cherries, lentils, garbonzo beans, hops, and mint. The total land area allocated to many of these crops is relatively small compared to major field crops, however they are generally high value crops and thus have a relatively large economic impact. Washington producers are responsible for over half the country's production of both apples and cherries. Hops, an important



ingredient in beer, is almost exclusively grown in Washington. Chickpeas and lentils are an important rotation crop for wheat production. Producers of these crops do face competition from imports. Globally, China is the largest producer of apples. Hops are imported from a number of other countries.²

FOREIGN EXPORTS

International markets are an important source of additional demand for a number of agricultural commodities grown in Washington. Of course, trade goes both ways and producers here must compete with foreign producers exporting to the U.S. Grains lead the way in both the value of foreign exports (\$400 million) and the proportion of foreign to domestic exports

(42%). About a third of processed and slaughtered meat products that leave the state are exported to foreign markets. While a relatively small amount of Washington fruit is exported to locales outside the U.S., fruits are second only to grains in the value of foreign exports.

LEADING COUNTIES

Yakima and Grant County lead the state in the value of production for both crop and animal agriculture and also have the highest agriculture related employment. These are counties with dry, warm weather and extensive irrigated agriculture permitting the production of tree fruits, wine grapes, and potatoes. Yakima and Benton County contain the primary growing regions for a number of specialty crops, including hops and mint.

The unique climate of the coastal Pacific Northwest has led to the development a significant greenhouse and floriculture industry in counties neighboring the Puget Sound. In Skagit County, output from the floriculture industry is valued \$85 million. Only the dairy sector is larger (\$104 million).

The Palouse region in Eastern Washington has a large portion of the most productive dryland agriculture in the state. Whitman County, which contains much of the Palouse, produces a fifth of the state's grain production by value (\$240 million).

RELATED SECTORS

Two industries that are distinct from, but related to, agriculture and food production are forestry and seafood processing. Managed forests are the major use of land in Washington other than agriculture. The value of output of forestry products is over \$700 million, which is comparable to wheat or potato production. Commercial logging employs around 8,500 people. The value of output from seafood preparation and processing is approximately \$2.7 billion.

REFERENCES

¹Minnesota IMPLAN Group, Inc. Stillwater, MN.

²National Agricultural Statistics Service, U.S. Department of Agriculture, Quick Stats 1.0. For tree fruit data see the Washington NASS Historic Data Reports.

*Washington State Dept. of Agriculture reports a lower total value of output of \$7.92 billion.

For questions or comments contact Dr. Michael Brady by phone at 509-335-0979 or by email at bradym@wsu.edu.