IMPACT Center
WASHINGTON STATE UNIVERSITY

Fact Sheet

Washington State Department of Commerce

Economic Impacts of Broadband Access on Washington Agriculture:

A regional Assessment of Ferry, Stevens, Pend Oreille, Lincoln, Spokane, Whitman, Adams, Columbia, Garfield, Asotin, Walla Walla, and Franklin Counties

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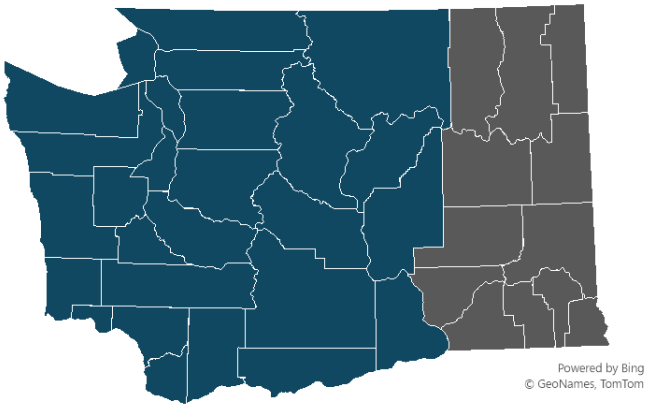
This Fact Sheet provides the economic overview of broadband availability and the associated agricultural impacts in the 12-county region of Ferry, Stevens, Pend Oreille, Lincoln, Spokane, Whitman, Adams, Columbia, Garfield, Asotin, Walla Walla, and Franklin counties.



Broadband access in this region has evolved over the years in terms of access, quality, and adoption. The primary crop land in the region is Wheat (30%), Wheat Fallow (16%), Pasture, Forest (14%), CRP/Conservation (12%), Pasture (9%), and Other (18%).[2] Total agricultural value of all commodities produced in the region has grown from $2.4 billion to $3.4 billion in this region over the last decade.

Table 1 shows the estimated values of select commodities produced in 2023 by county within the region. Table 1 only lists a set of the key commodities produced and, as such, does not reflect the entire value of all agricultural production. Shellfish and Pastureland, for example, are not included.

Table 1: *2023 Region 4 Production Value Estimates by County and Commodity*

County	Adams	Asotin	Columbia	Ferry	Franklin	Garfield
Wheat	$94,185,997	$6,517,546	$43,835,334	$106,581	$28,411,905	$29,125,320
Barley	$536,471	$723,704	$2,854,169	$0	$0	$597,554
Apples	$44,865,786	$105,965	$1,525,903	$275,510	$156,288,494	$10,597
Cherries	$1,690,943	$37,577	$0	$30,061	$35,825,435	$0
Pears	$0	$0	$367,402	$71,883	$838,635	$0
Potatoes	$202,940,052	$0	$0	$0	$294,623,665	$0
Onions	$41,442,800	$0	$0	$0	$92,416,000	$0
Canola	$1,182,735	$873,783	$1,896,830	$0	$150,211	$3,111,787
Garbanzos	$0	$0	$3,340,033	$0	$0	$160,453
Dry Peas	$4,396,629	$80,443	$7,812,223	$0	$1,007,850	$275,541
Lentils	$0	$0	$0	$0	$0	$0
Grapes	$261,183	$30,727	$0	$0	$12,468,608	$0
Hops	$0	$0	$0	$0	$0	$0
Blueberries	$0	$0	$0	$0	$7,506,986	$0
Mint	$8,473,127	$0	$0	$0	$930,076	$0
Corn	$29,602,998	$0	$221,324	$21,797	$76,745,927	$0
Grasses/ Hay	$56,085,925	$2,370,582	$3,645,652	$2,950,454	$196,969,605	$1,639,635
Milk	$27,258,590	$0	$0	$0	$60,056,764	$0
County Sub Total	***$512,923,237***	***$10,740,328***	***$65,498,872***	***$3,456,287***	***$964,240,161***	***$34,920,886***

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[2] Commodities are reported on an acreage basis rather than a value basis. Apple and potatoes, generate more value per acre, but compose much less acreage than wheat and forage crops.

Table 1 (Continued): *2023 Region 4 Production Value Estimates by County and Commodity*

County	Lincoln	Pend Oreille	Spokane	Stevens	Walla Walla	Whitman	Regional Total
Wheat	$121,202,934	$18,601	$53,143,916	$1,179,432	$85,523,563	$226,279,723	$689,530,854
Barley	$4,762,225	$61,083	$3,331,036	$768,896	$1,839,138	$13,116,887	$28,591,165
Apples	$31,790	$10,597	$1,409,341	$826,531	$115,544,765	$127,159	$321,022,438
Cherries	$0	$0	$398,311	$97,699	$6,478,189	$0	$44,558,214
Pears	$0	$0	$23,961	$39,935	$0	$0	$1,341,816
Potatoes	$24,173,954	$0	$0	$108,177	$116,809,525	$0	$638,655,373
Onions	$2,512,560	$0	$0	$0	$28,273,520	$0	$164,644,880
Canola	$13,772,986	$0	$10,272,167	$356,337	$1,386,018	$22,092,408	$55,095,262
Garbanzos	$1,259,062	$0	$4,877,977	$0	$5,274,742	$36,577,733	$51,490,000
Dry Peas	$1,193,239	$0	$4,862,182	$29,588	$5,699,437	$7,453,928	$32,811,059
Lentils	$0	$0	$5,883,435	$0	$0	$10,387,442	$16,270,877
Grapes	$65,296	$0	$42,250	$99,864	$11,706,240	$15,364	$24,689,533
Hops	$0	$0	$10,446	$10,446	$41,785	$0	$62,678
Blueberries	$141,725	$0	$141,725	$13,287	$1,248,950	$0	$9,052,672
Mint	$0	$0	$0	$0	$1,178,096	$0	$10,581,300
Corn	$1,567,715	$0	$409,115	$482,890	$38,731,770	$962,426	$148,745,962
Grasses/ Hay	$31,172,121	$1,494,708	$39,470,426	$28,195,417	$47,525,860	$17,888,460	$429,408,846
Milk	$373,682	$0	$5,726,425	$5,771,873	$0	$3,716,621	$102,903,955
County Sub Total	***$202,229,288***	***$1,584,989***	***$130,002,713***	***$37,980,372***	***$467,261,598***	***$338,618,151***	***$2,769,456,882***

Source: USDA NASS, WSDA, and author's calculations

sixteen percent of the past decade's growth is estimated to be a result of broadband enhancements and the adoption of precision agriculture. Without access to these new technologies agriculture in the region would not have seen the growth, or growth rate, that has helped to make farms more efficient and profitable. This allows agriculture in the region to remain competitive and on the cutting edge of efficiency.

The impacts of broadband access and subsequent precision ag technology utilization generate more than simply increases in farm output and reduced input costs. Those gains in production efficiency ripple through the economy as increased spending, resulting from increases in farm output and increased income for farm households.[3] Table two shows the direct agricultural gains in sales, gross regional product, household income and jobs for the region, all resulting from broadband access and utilization. The direct sales amounted to just over $154.3 million. Those direct gains resulted in increased farm-to-business transactions within the region of roughly $25.2 million (indirect contributions). Increased farm profits improved farmer's take-home pay and household expenditures. associated consumer-to-business transactions, produced another $91.4 million (induced contributions). Total sales of $270.9 million in the region were a result of broadband access and utilization. This occurred in two ways: farm purchases of business inputs (everything from seed and fertilizer to business services including accounting and legal fees), and the personal purchases of both farmers and their employees (eating in local restaurants, attending a local sporting event, buying clothes for their families, etc.).

[3] Farmer household income is a gross measure. Reduced expenditures on fertilizers, for example, mean less farm spending on local vendor purchases that also ripple through the economy.

Table 1: ***Regional Economic Impacts from Agricultural Productivity Under Broadband Expansion***

	Sales	GDP	Income	Jobs
Direct	$154,309,716	$94,464,417	$61,339,057	1,943
Indirect	$25,184,096	$11,123,607	$7,228,972	124
Induced	$91,390,771	$49,726,486	$35,774,035	599
Total	$270,884,583	$155,314,510	$104,342,064	2,666

Source: IMPLAN and author's calculations

The $270.9 million in total sales translated to $155.3 million in total Gross Regional Product (GRP) for 2023. Household incomes attributable to gains in broadband access and precision agricultural utilization amounted to $104.3 million. The agricultural expenditures and gains from broadband infrastructure supported a total of 2,666 jobs within the 12-county economy. Broadband access and gains from precision agriculture can then claim responsibility for 0.77% of regional employment.

GRP is the economists' primary measure of economic activity because it removes the double counting included in the sales figures, though it is still larger than the household income measure. As such broadband expansion, access, and utilization in the 12-county region is responsible for $155.3 million of the 2023 regional economy.