

# ECONOMIC IMPACT OF SPECIALTY CROP PRODUCTION AND PROCESSING IN WISCONSIN

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Production and processing of specialty crops in Wisconsin are important to both state and national agricultural and manufacturing industries. Wisconsin ranks 7<sup>th</sup> among US states for farmgate vegetable sales and 8<sup>th</sup> for farmgate fruit and tree nut sales. While a portion of these sales enter fresh markets (grocery stores, restaurants, farmers markets, etc.), a significant amount of Wisconsin farmgate sales go to processors for freezing, canning, drying and pickling. As a result, Wisconsin ranks 2<sup>nd</sup> among US states for both harvested acreage and total production of processing vegetables and 3<sup>rd</sup> for production value. Key processing crops in Wisconsin include potatoes, sweet corn, green beans, green peas, carrots, cucumbers, and onions, with

cranberries by far the leading fruit. In addition, Wisconsin is a world-renowned producer of ginseng, most of which is exported to Asia.

## ECONOMIC IMPACT OF SPECIALTY CROPS

Production and processing of Wisconsin specialty crops benefit the statewide economy in multiple ways. In a direct sense, each sector creates economic activity and jobs within its own industry. However, both crop production and processing also benefit nearly every other Wisconsin industry. For example, growers purchase equipment and fertilizers from local suppliers, pay farm workers, and invest earnings in local banks. In turn, farm workers use their earnings to pay for housing, groceries and other personal expenditures. In this way, one dollar received by a Wisconsin farmer for producing and selling a specialty crop creates more than one dollar in value as the dollar is spent and re-spent in the statewide economy. The *total economic impact* of specialty crop production and processing in Wisconsin captures this ripple effect in statewide spending.

## TOTAL ECONOMIC IMPACT

**Specialty crop production and processing together account for about \$6.4 billion in economic activity (3% of Wisconsin's overall economy) and nearly 35,000 jobs (1% of jobs statewide), including both indirect and induced impacts.**

### Total Impact of Specialty Crop Production and Processing<sup>1</sup> Industries in Wisconsin (Economic activity in \$ millions per year)

	Total Economic Activity	Total Jobs
<b>Vegetable &amp; Fruit Production</b>	<b>\$1,092</b>	<b>9,900</b>
Potatoes	\$349	2,770
Cranberries	\$300	3,400
Sweet Corn	\$83	660
Green Beans	\$63	490
Green Peas	\$26	200
Carrots, Cucumbers & Onions	\$28	220
Ginseng	\$16	130
<b>Specialty Crop Processing</b>	<b>\$5,268</b>	<b>24,800</b>
<b>Total Impact</b>	<b>\$6,360</b>	<b>34,700</b>

<sup>1</sup>Production estimates based on 2006-2008 average farmgate values; processing estimates based on 2007 Economic Census values. Note: Sum of impacts may not equal total impact due to rounding.

## ECONOMIC IMPACT OF SPECIALTY CROP PRODUCTION

- There are roughly 1,200 large scale vegetable growers statewide, with annual sales averaging \$510 million<sup>1</sup>.
- About 1,700 large scale growers produce fruit in Wisconsin, with annual sales averaging \$240 million<sup>2</sup>.
- Wisconsin ranks 3<sup>rd</sup> among US potato-producing states, with half of Wisconsin **potatoes** used for processing (chips, frozen fries, dehydrated) and about half sold for fresh consumption.
- **Cranberries** constitute 85% of fruit production in Wisconsin and the state produces over half of all cranberries in the US.
- For major processing crops (sweet corn, green beans and green peas), Wisconsin ranks 2<sup>nd</sup> among US states for both harvested acreage and total production and 3<sup>rd</sup> for production value.
  - Wisconsin's processing **green beans** account for more than two-fifths of US production.
  - Processing **sweet corn** and **green peas** each account for about one-fifth of US production.
- **Carrots, cucumbers, and onions** contribute significantly to Wisconsin's vegetable processing industry. Wisconsin ranks 2<sup>nd</sup> in the US for production of processing carrots, 4<sup>th</sup> for production of pickling cucumbers and 13<sup>th</sup> for onion production.
- Wisconsin leads the nation in **ginseng** production, accounting for 95% of US production.
- Specialty crop production directly contributes an estimated \$745 million in economic activity and more than 6,100 jobs (full-time, part-time or seasonal) to Wisconsin's economy. Spending from this economic activity generates an additional \$350 million in economic activity and nearly 3,800 additional jobs.
  - Of this additional activity, \$200 million and an associated 2,400 jobs are *indirect* activity stemming from farm spending in other industries, such as for farm equipment, inputs, and land.
  - \$150 million and 1,400 jobs are *induced* activity from in-state spending by farm employees (example: housing, groceries, taxes, etc).
- **The total impact of Wisconsin specialty crop production is an estimated \$1.1 billion in economic activity and nearly 10,000 jobs statewide.**



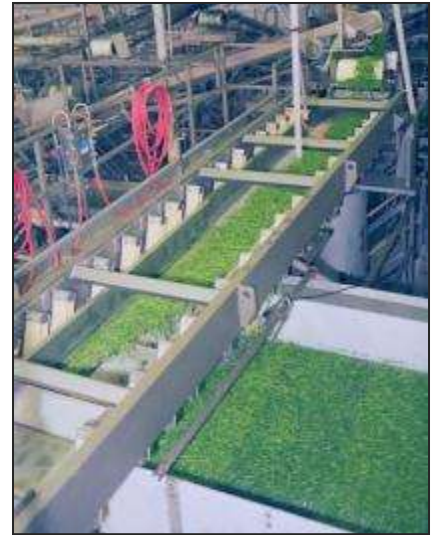
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<sup>1</sup> Only growers with 25 acres or more included. Annual sales based on 2006-2008 average values.

<sup>2</sup> When possible, only growers with 25 acres or more were included. Annual sales based on 2006-2008 average values.

## ECONOMIC IMPACT OF SPECIALTY CROP PROCESSING

- Throughout Wisconsin, approximately 80 companies process vegetables and fruit.
- In-state processing of specialty crops annually generates an estimated \$3.1 billion in economic activity and roughly 9,700 jobs. Spending from this economic activity spurs an additional \$2.2 billion in economic activity and 15,100 jobs.
  - Of this total, \$1.6 billion and an associated 9,600 jobs are indirect activity from companies spending in other Wisconsin industries.
  - \$580 million and 5,500 jobs are induced activity from in-state spending by company employees.
- **The total impact of specialty crop processing in Wisconsin is approximately \$5.3 billion in economic activity each year and 24,800 jobs statewide.**



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### Impact of Specialty Crop Production and Processing<sup>1</sup> Industries in Wisconsin (Economic activity in \$ millions per year)

	Direct	Indirect	Induced	Total	Multiplier
<b>Production<sup>1</sup></b>					
Economic Activity	\$745	\$201	\$146	\$1,092	1.47
Jobs	6,100	2,400	1,400	9,900	1.61
<b>Processing<sup>2</sup></b>					
Economic Activity	\$3,063	\$1,629	\$576	\$5,268	1.72
Jobs	9,700	9,600	5,500	24,800	2.57
<b>Total Impact</b>					
Economic Activity	\$3,808	\$1,830	\$722	\$6,360	1.67
Jobs	15,800	12,000	6,900	34,700	2.19

<sup>1</sup>Production estimates based on 2006-2008 average farmgate values; processing estimates based on 2007 Economic Census values.  
Note: Sum of impacts may not equal total impact due to rounding.

**Vegetable and fruit processing data is not available for individual crops.** Furthermore, because some crops produced in Wisconsin is processed out-of-state and some non-Wisconsin grown crops are imported into the state for processing, it is very difficult, and beyond the scope of this publication, to estimate the per-crop impacts of processing in Wisconsin.

## ECONOMIC IMPACT OF POTATO PRODUCTION

- Nationally, Wisconsin ranks 3<sup>rd</sup> in potato production.
- In 2008, roughly 140 Wisconsin growers<sup>1</sup> produced 2.6 billion pounds of potatoes, half of which were used for processing.
- Production value has grown substantially in recent years, increasing 66 percent in value between 2004 and 2008.
- Wisconsin's potato production directly contributes an annual average of \$240 million in economic activity and more than 1,620 jobs to the statewide economy<sup>2</sup>. Spending from this economic activity results in an additional \$109 million in economic activity and 1,150 jobs.
  - \$66 million and an associated 730 jobs of this additional activity are indirect impacts stemming from farm spending in other Wisconsin industries.
  - \$43 million and 420 jobs are induced impacts from in-state spending by farm employees.
- **The total impact of Wisconsin's potato production is estimated at \$349 million annually in economic activity and over 2,770 jobs statewide.**



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### Impact of Potato Production<sup>1</sup> in Wisconsin (Economic activity in \$ millions per year)

	Direct	Indirect	Induced	Total	Multiplier
Economic Activity	\$240	\$66	\$43	\$349	1.45
Jobs	1,620	730	420	2,770	1.71

<sup>1</sup>Production estimates based on 2006-2008 average farmgate values.  
Note: Sum of impacts may not equal total impact due to rounding.



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<sup>1</sup> Only growers with 25 acres or more included.

<sup>2</sup> Based on 2006-2008 average values.

## ECONOMIC IMPACT OF CRANBERRY PRODUCTION

- Cranberries are Wisconsin's largest fruit crop, accounting for almost 85% of the total value of fruit production in the state in 2008.



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- 260 growers produced nearly 4.6 million barrels of cranberries in 2008, a record volume and over half of US cranberry production that year.
- Most of Wisconsin's cranberry production is used for processing, but a small portion is sold in fresh markets.
- Wisconsin's cranberry production directly contributes an annual average of \$199 million in economic activity each year and more than 2,300 jobs to the statewide economy<sup>1</sup>. Spending from this economic activity generates an additional \$101 million annually in economic activity and 1,100 jobs.
  - \$55 million and an associated 700 jobs of this additional activity are indirect impacts stemming from farm spending in other Wisconsin industries.
  - \$46 million and 400 jobs are induced impacts from in-state spending by farm employees.

- **The total impact of Wisconsin's cranberry production averages \$300 million each year in economic activity and roughly 3,400 jobs statewide.**

### Impact of Cranberry Production<sup>1</sup> in Wisconsin (Economic activity in \$ millions per year)

	Direct	Indirect	Induced	Total	Multiplier
Economic Activity	\$199	\$55	\$46	\$300	1.51
Jobs	2,300	700	400	3,400	1.48

<sup>1</sup>Production estimates based on 2006-2008 average farmgate values.  
Note: Sum of impacts may not equal total impact due to rounding.



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<sup>1</sup> Based on 2006-2008 average values.

## ECONOMIC IMPACT OF SWEET CORN PRODUCTION



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- Wisconsin ranks 2<sup>nd</sup> in the US for production of processing sweet corn, accounting for one-fifth of national production.
- Roughly 700 Wisconsin growers<sup>1</sup> produced 652,000 tons of processing sweet corn in 2008, valued at \$81 million.
- On average, Wisconsin's production of processing sweet corn directly contributes \$57 million in economic activity annually and 390 jobs to the statewide economy<sup>2</sup>. Spending from this economic activity results in an additional \$26 million in economic activity and 270 jobs.
  - \$16 million and an associated 170 jobs of this additional activity are indirect impacts stemming from farm spending in other Wisconsin industries.
  - \$10 million and 100 jobs are induced impacts from in-state spending by farm employees.
- **The total impact of processing sweet corn production in Wisconsin is estimated at \$83 million annually in economic activity and over 660 jobs statewide.**

### Impact of Processing Sweet Corn Production<sup>1</sup> in Wisconsin (Economic activity in \$ millions per year)

	Direct	Indirect	Induced	Total	Multiplier
Economic Activity	\$57	\$16	\$10	\$83	1.46
Jobs	390	170	100	660	1.69

<sup>1</sup>Production estimates based on 2006-2008 average farmgate values.  
Note: Sum of impacts may not equal total impact due to rounding.



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<sup>1</sup> Only growers with 25 acres or more included.

<sup>2</sup> Based on 2006-2008 average values.

## ECONOMIC IMPACT OF GREEN BEAN PRODUCTION

- Wisconsin ranks 1<sup>st</sup> in the US for production of processing green beans, accounting for two-fifths of national production.
- Over 400 Wisconsin growers<sup>1</sup> produced 327,000 tons of processing green beans in 2008, valued at \$62 million.
- Wisconsin's production of processing green beans directly contributes an annual average of \$43 million in economic activity roughly 290 jobs to the statewide economy<sup>2</sup>. Spending from this economic activity results in an additional \$20 million in economic activity and approximately 200 jobs.
  - \$12 million and an associated 130 jobs of this additional activity are indirect impacts stemming from farm spending in other Wisconsin industries.
  - \$8 million and 70 jobs are induced impacts from in-state spending by farm employees.
- **The total impact of Wisconsin's processing green bean production averages \$63 million annually in economic activity and nearly 490 jobs statewide.**

### Impact of Processing Green Bean Production<sup>1</sup> in Wisconsin (Economic activity in \$ millions)

	Direct	Indirect	Induced	Total	Multiplier
Economic Activity	\$43	\$12	\$8	\$63	1.47
Jobs	290	130	70	490	1.69

<sup>1</sup>Production estimates based on 2006-2008 average farmgate values.

Note: Sum of impacts may not equal total impact due to rounding.



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<sup>1</sup> Only growers with 25 acres or more included.

<sup>2</sup> Based on 2006-2008 average values.

## ECONOMIC IMPACT OF GREEN PEA PRODUCTION

- Wisconsin ranks 3<sup>rd</sup> in the US for production of processing green peas, accounting for one-fifth of production nationally.
- Nearly 400 Wisconsin growers<sup>1</sup> produced 76,000 tons of processing green peas in 2008, valued at \$20 million.
- On average, Wisconsin's processing green pea production directly contributes \$18 million in economic activity annually and more than 120 jobs to the statewide economy<sup>2</sup>. Spending from this activity results in an additional \$8 million in economic activity and 80 jobs.



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- \$5 million and an associated 50 jobs of this additional activity are indirect impacts stemming from farm spending in other Wisconsin industries.
- \$3 million and 30 jobs are induced impacts from in-state spending by farm employees.
- **The total impact of Wisconsin's processing green pea production is estimated at \$26 million annually in economic activity and over 200 jobs statewide.**

### Impact of Processing Green Pea Production<sup>1</sup> in Wisconsin (Economic activity in \$ millions per year)

	Direct	Indirect	Induced	Total	Multiplier
Economic Activity	\$18	\$5	\$3	\$26	1.44
Jobs	120	50	30	200	1.71

<sup>1</sup>Production estimates based on 2006-2008 average farmgate values.

Note: Sum of impacts may not equal total impact due to rounding.



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<sup>1</sup> Only growers with 25 acres or more included.

<sup>2</sup> Based on 2006-2008 average values.

## ECONOMIC IMPACT OF CARROT, CUCUMBER AND ONION PRODUCTION

- Carrots, cucumbers and onions contribute significantly to Wisconsin's vegetable industry. Wisconsin ranks 2<sup>nd</sup> in the US for production of processing carrots and 4<sup>th</sup> for production of pickling cucumbers. Wisconsin ranks 13<sup>th</sup> for onion production, with most of the onions produced here sold in fresh markets.
- Wisconsin growers produced 77,000 tons of processing carrots, 39,000 tons of pickling cucumbers and 33 million pounds of onions in 2008.
- Production of carrots, pickling and fresh cucumbers, and onions directly contributes an annual average of \$19 million in economic activity and more than 130 jobs to the statewide economy<sup>1</sup>. Spending from this activity generates an additional \$9 million in economic activity each year and 90 jobs.
  - \$5 million and an associated 60 jobs of this additional activity are indirect impacts stemming from farm spending in other Wisconsin industries.
  - \$4 million and 30 jobs are induced impacts from in-state spending by farm employees.
- **The total combined impact of producing processing carrots, cucumbers and onions in Wisconsin is estimated at \$28 million each year in economic activity and over 220 jobs statewide.**



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### Impact of Carrot, Cucumber and Onion Production<sup>1</sup> in Wisconsin (Economic activity in \$ millions per year)

	Direct	Indirect	Induced	Total	Multiplier
Economic Activity	\$19	\$5	\$4	\$28	1.47
Jobs	130	60	30	220	1.69

<sup>1</sup>Production estimates based on 2006-2008 average farmgate values.  
Note: Sum of impacts may not equal total impact due to rounding.



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<sup>1</sup> Based on 2006-2008 average values.

## ECONOMIC IMPACT OF GINSENG PRODUCTION

- Wisconsin growers produce nearly the entire US ginseng crop (95%).
- In 2007, 569,000 pounds of ginseng were produced by growers throughout the state.
- Wisconsin's ginseng production directly contributes an annual average of \$11 million in economic activity and approximately 75 jobs to the statewide economy<sup>1</sup>. Spending from this economic activity generates an additional \$5 million in economic activity and 55 jobs.
  - \$3 million and an associated 35 jobs of this additional activity were indirect impacts stemming from farm spending in other Wisconsin industries.
  - \$2 million and 20 jobs were induced impacts from in-state spending by farm employees.
- **The total impact of Wisconsin's ginseng production averages \$16 million annually in economic activity and over 130 jobs statewide.**

### Impact of Wisconsin's Ginseng Production<sup>1</sup> (Economic activity in \$ millions per year)

	Direct	Indirect	Induced	Total	Multiplier
Economic Activity	\$11	\$3	\$2	\$16	1.45
Jobs	75	35	20	130	1.73

<sup>1</sup>Production estimates based on 2006-2008 average farmgate values.  
Note: Sum of impacts may not equal total impact due to rounding.



Ginseng Board of WI



Ginseng Board of WI

<sup>1</sup> Based on 2007-2008 average values.