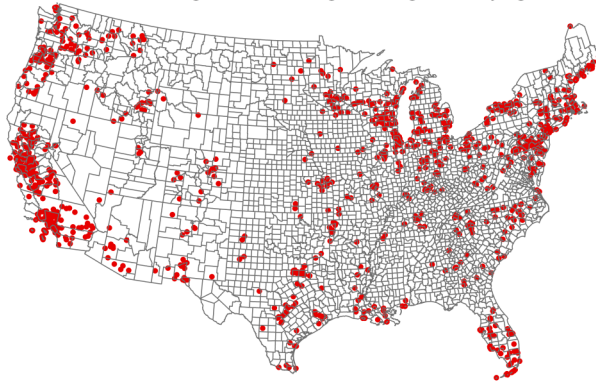


Agricultural Processing in Wisconsin

Agricultural Processing: Fruit and Vegetable Canning, Pickling, and Drying

In the U.S. there are about 950 plants that can, pickle or dry fruit and vegetables and there are about 50 such firms in Wisconsin, about 5% of the U.S. total. There are strong spatial clustering or “hot spots” in southern Florida, a large area along the Pacific coast including parts of Arizona and New Mexico, and the coastal region of the Northeastern U.S. There is also a spatial clustering including the Chicago metro area and much of eastern Wisconsin. For Wisconsin this industry provides about 4,800 jobs and pays labor income (wages, salary and proprietor income) of about \$293 million with about \$2.5 billion in industrial sales.

Fruit and Vegetable Canning, Pickling, and Drying Plants



If food processing is to be a viable economic cluster for Wisconsin we must think broadly in terms of all elements of the industry. Too often clusters are thought of as geographic concentrations of similar types of businesses. Viable clusters are much more than that: they are vertically and horizontally interconnected businesses. Firms are competitors, which drives innovation, but also work together to strengthen the industry.

In a 2009 study of the Wisconsin agricultural economy Deller and Williams documented that the food processing industry generates about 252,000 jobs and \$15.5 billion in income. This represents just over seven percent of all employment and just less than seven percent of all income in Wisconsin. In addition, the economic activity associated with food processing generated just over \$1 billion in state and local government revenues. This series of factsheets is aimed at helping better understand the food processing industry in Wisconsin and identify policies that may enhance the competitiveness of the industry.

Agricultural process manufacturing, such as cheese making, vegetable canning and freezing and breweries as well as wineries, remains an important part of the Wisconsin economy. Equally important, the products that are associated with food processing, in particular cheese and beer, are an integral part of the Wisconsinites self-identity. Curly Lambeau, one of the founders of the Green Bay Packers, used funding from his employer, the Indian Packing Company, a meat canning processor, to fund the early operations of the team. The Milwaukee Brewers are named in recognition of the city and state's long tradition in making beer.

The most common way to think about the promotion of a particular industry is to increase sales either by existing businesses expanding or new businesses entering the market through recruitment or start-ups. Within the framework of an economic cluster one must think more deeply including examination of the input supply chain. Firms, or in this case fruit and vegetable processing, can buy input supplies from local/regional businesses or input from firms outside the area. Ideally, a viable cluster maximizes inputs from local/regional suppliers and minimizes those that are imported.

Firms could import supplies for one of two reasons. It may be the case that input suppliers are located within the region but fruit and vegetable processors elect to import; this can be called a “disconnect” in the market. It could be that cheese plants are simply not aware of those regional suppliers or the specific needs and pricing required by cheese plants cannot be met with regional suppliers. Alternatively it could be that regional suppliers are not available or are too small to meet the needs of the processing industry; this can be called a “gap”. The question is if the “gap” is sufficiently large to encourage firms to enter hence creating economic growth and development opportunities within Wisconsin.

The Wisconsin fruit and vegetable canning, pickling and drying sector purchases just over \$2 billion for its production process. About half (45.3%) is imported into Wisconsin. For example, over half (about \$217.6 million) of the fruits and vegetables used are imported as is about half (\$126.6 million) of flavoring, dressing and sweeteners used in the production process. The question is if these leakages in the input supply chain can be filled by Wisconsin businesses?

Naturally, there could be a range of reasons why these leakages in the supply chain exists. For example, raw materials need to be diversified to guard against seasonality in production or poor growing conditions in any given place. But by examining the input supply chain we can better understand the level of vertical integration. Further, by identifying “gaps” and “disconnects” in the supply chain we can identify potential industries that could be promoted to strengthen that supply chain and building a stronger economic cluster.

Inputs to Fruit and Vegetable Canning, Pickling, and Drying (\$000)

	Gross Inputs (\$)	Share of Inputs (%)	Regional Inputs (\$)	Share Imported (%)	Imports (\$)
Total Commodity Demand	2,016,962		1,102,411	45.3	914,551
Fruits and Vegetables	382,557	19.0	164,993	56.9	217,564
Employee Compensation	279,050	13.8	279,050	n.a.	n.a.
Flavoring, Dressing, Sweeteners	250,204	12.4	121,590	51.4	128,615
Metal Products	189,447	9.4	113,188	40.3	76,259
Other Food Products	175,044	8.7	58,959	66.3	116,085
Wholesale trade distribution services	162,290	8.0	127,913	21.2	34,377
Processed Animal and Fish, and by products	143,943	7.1	71,783	50.1	72,159
Management of companies and enterprises	122,117	6.1	104,177	14.7	17,940
Business Services	119,483	5.9	81,522	31.8	37,961
Paper Products	104,696	5.2	74,579	28.8	30,117
Electricity and fossil fuels	71,896	3.6	40,491	43.7	31,406
Transportation Services	71,812	3.6	55,992	22.0	15,820
Plastics and Petroleum and Chemical products	57,778	2.9	11,894	79.4	45,884
Real Estate	44,381	2.2	37,229	16.1	7,152
Machinery	40,510	2.0	16,253	59.9	24,257
Glass containers	38,902	1.9	19,135	50.8	19,767
Printed materials	17,749	0.9	6,869	61.3	10,881
Other	17,308	0.9	7,668	55.7	9,640
Telecommunications	7,381	0.4	5,047	31.6	2,334
Soaps and cleaning compounds	6,692	0.3	3,683	45.0	3,009
Water, sewage treatment, and other utility services	1,478	0.1	1,327	10.2	151
Tree nuts	1,194	0.1	0	100.0	1,193

References: Deller, Steven C. and Williams, David. 2009. “The Contribution of Agriculture to the Wisconsin Economy.” Department of Agricultural and Applied Economics Staff Paper No. 541. University of Wisconsin-Madison/Extension. (August). www.aae.wisc.edu/pubs/sps/pdf/