

Economic Impacts of Michigan's Food and Agriculture System

Dr. Brent Ross
Research Coordinator

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(Published in 2012 based on 2010 data)

- *Total Economic Impact: \$91.4 billion*
 - *52% increase since 2004*
 - *Over a 7% annual growth rate*
- *Total Employment Impact: 923,000 jobs*
 - *Accounts for 22% of MI workforce*

Information Methods and Sources

- Methods
 - Latest data available consistent with calendar year 2010
 - IMPLAN multipliers for indirect and induced effects
 - Ag input industry is a multiplier effect of farming
 - Ag processing is a multiplier effect of food manufacturing
 - Standard methods for such estimates
- Many contributors of information
 - Michigan Agricultural Statistics Service
 - Ag Census (2007)
 - U.S. Economic Census (2007)
 - Bureau of Labor Statistics (2010)

Exhibit A: Total Direct, Indirect and Induced Economic Activity in Michigan's Food and Agriculture System (2010)

Category	Economic Impact (Millions \$)			Employment		
	Direct	Indirect/ Induced	Total	Direct	Indirect/ Induced	Total
Food and Agricultural Production and Processing						
Farming	7,239	5,852	13,091	73,726	31,038	104,764
Food Processing and Manufacturing	14,657	9,906	24,563	40,828	88,358	129,186
Leather Processing	52	32	84	149	231	380
Total	21,948	15,790	37,738			
Adjustment for Double Counting	(1,231)	(909)	(2,140)			
Net Total	20,717	14,881	35,598	114,703	119,627	234,330
Food Wholesale and Retail	29,046	22,000	51,046	482,499	172,600	655,099
Total Food and Agriculture before Related Sectors	49,763	36,881	86,644	597,202	292,227	889,429
Floricultural/ornamental/turfgrass services and retail*	2,472	2,043	4,515	20,517	12,876	33,393
Net Impact of Ethanol Production**	195	28	223	175	503	678
Grand Total Food and Agriculture	52,430	38,952	91,382	617,894	305,606	923,500

Table 12: 2004-2010 Comparison of Total Economic Impact and Employment in Michigan's Food and Agriculture System

Category	Economic Impact (millions \$)			Employment		
	2004	2010	% Change	2004	2010	% Change
Food & Agricultural Production & Processing						
Farming	6,694	13,091	95.6%	102,900	104,764	1.8%
Food Processing and Manufacturing	18,035	24,563	36.2%	116,295	129,186	11.1%
Leather Processing	874	84	90.4%	1294	380	-70.6%
Adjustment for Double Counting		(2,140)				
Net Total	25,603	35,598	39.0%	220,489	234,330	6.3%
Food Wholesale and Retail	31,456*	51,046	62.3%	779,105*	655,099	-15.9%
Total Food & Agriculture before Related Sectors	57,059	86,644	51.8%	999,594	889,429	-11.0%
Floricultural/ornamental/turf grass services and retail	3,025*	4,515	49.3%	35,338*	33,393	-5.5%
Net Impact of Ethanol Production	75	223	197.3%	135	678	400.0%
Total Food and Agriculture	60,159	91,382	51.9%	1,035,067	923,497	-10.8%

Total Economic Impact and Growth by Farm Sector

(Million \$)

Farm Sectors	2004	2010	Growth
Field Crops	\$2,528	\$5,723	126%
Livestock/Dairy	2,390	4,726	98%
Fruits	384	758	97%
Vegetables	435	673	55%
Floriculture, nursery, greenhouse, etc.	918	1,200	31%
All other	39	9	-77%
TOTAL	\$6,694	\$13,089	96%

Total Economic Value and Growth by Food Processing Sector

(\$ million)

Food Processing Sectors	2004	2010	Growth
Sugar Manufacturing	\$ 210	\$ 867	313%
Frozen Food Manufacturing	434	774	78%
All Dairy Products	4,039	6,773	68%
Fruit & Veg Canning/Processing	994	1,655	66%
Poultry Processing	665	1,042	57%
Bread, Baking, Crackers, Snacks	2,323	3,067	32%
Flour Milling/Oilseed Processing	284	374	32%
Meat Processing (w/o poultry)	1,915	2,520	32%
All Other (cereal, soft drinks, etc.)	7,171	7,491	4%
Total	\$18,035	\$24,563	36%

2012 Freeze and Draught

- What were the economic impacts?
- Freeze
 - Farm level
 - 80-95% loss for apples, cherries, peaches, pears, plums
 - 20-25% loss for blueberries, grapes
 - Rough estimate of \$400 million economic loss
 - Processing level
 - Economic activity largely maintained by “imports”
 - Profit margins dramatically squeezed
- Draught
 - 20% yield loss in corn; 10% in soybeans
 - Value of new genetics!!!
 - ~\$500 million economic loss on yield but likely made up by price
 - By contrast, record yield in sugar beets
 - 10%-15% loss for vegetables = \$70-90 million economic loss
 - Greenhouse/nursery likely had losses but no estimate available
- These losses were significant for the individual farmers and processes, but the \$91 billion larger system churned on.

Summary Economic Impact

- *Total Economic Impact: \$91.4 billion*
 - 7% CAGR since 2004
 - *Farming represents 14% of total*
 - *Corn is the largest crop sector*
 - *Dairy is the largest livestock sector*
 - *Vegetables and fruits remain strong*
- *Total Employment Impact: 923,000 jobs*
 - Accounts for 22% of MI workforce
 - Decline since 2004
 - 6% increase for Food & Ag production and processing
 - Decline comes almost entirely from Food Retailing
- **There are substantial growth opportunities for the future!!!**