## **Agriculture, Food & Natural Resources**

## Highlights at a Glance

- The agribusiness industry in Illinois employs over 163,000 and contributes \$13.5 billion to the state's economy. Given the domestic and export markets for its products, the industry is expected to remain a significant contributor in both jobs and product.
- Over 75 percent of the state's total land area is dedicated to farming in Illinois.
- Illinois is a leading national producer of soybeans, corn and swine. The state's climate and soil types also enable farmers to grow and raise many other agriculture commodities including cattle, wheat, oats, sorghum, hay, sheep and poultry.
- While employment in the traditional "on farm" agricultural production industry is expected to continue to decline, overall employment in agribusiness, food and natural resources is expected to grow about as fast as the average for all industries in Illinois.
- Specific segments within the agribusiness industry will experience average growth and many
  additional job openings will arise from the need to replace those workers who leave the labor
  force. For example, the landscape and horticultural services segment should have among the
  most rapid industry job growth in Illinois.
- Those seeking careers in agribusiness need to have a well-rounded educational background in their specific interests (for example, agronomy, agricultural economics and business, natural resources conservation, horticulture, crop science, and animal science). Those interested in these areas who acquire the necessary education and skills should find ample opportunities for employment in Illinois and the Midwest.

## Nature of the Industry

The agribusiness industry plays a vital role in both the state and national economies and our daily lives. It supplies us and many other countries with a wide variety of food products and non-food products such as fibers, lumber, and recreation. It contributes positively to our foreign trade balance and it remains one of the Nation's and state's larger industries in terms of total employment. However, technology continues to enable us to produce more of these products with fewer workers. The largest segment of the traditional agricultural production industry in Illinois includes two large subsectors, crop production and animal production. Of course, many farms in Illinois have both crops and livestock, such as those that grow their own animal feed, or have diverse enterprises. The vast majority of farms, ranches, and other agribusiness companies are small enterprises, owned and operated by families as their primary or secondary source of income. Although large family farms (those generating more than \$250,000 per year in gross annual sales) and corporate farms comprise less than 10 percent of the establishments in the industry, they produce three-fourths of all agricultural output. Increasingly, these large farms are being operated for the benefit of large agribusiness firms, which buy most of the product. The agribusiness industry sector is being transformed by the implementation of science and technology in almost every phase of the agricultural process (for example, bioengineered crops, the use of global positioning equipment, animal genetics, further mechanization, and marketing). These changes are increasing the employment opportunities in all agribusiness fields including: agricultural support services; farm management services; aerial dusting and spraying; farm labor contractors; and, animal breeding and insemination.

Standard Occupational Classification (SOC)		Emp.	Employment Change 2008-2018		Average Annual Job Openings due to			Median Training/ Annual Education
Code	e Title	2008	Number	Percent	Growth	Replcmnts	Total	Wage Level
00-0000	Total, All Occupations	6,333,193	548,419	8.66%	61,304	144,789	206,093	
Agribusi	ness Systems							
	Farmers & Ranchers	57,067	-4,175	-7.32%	0	349	349	\$43,611 Long-term on-the-job training
	Farm, Ranch & Other Agricultural Managers	3,146	10	0.32%	1	64	65	\$30,771 Bachelor's degree plus work exp.
	Sales Reps, Whls/Mfg, Tech/Scientific Products*	707	46	6.52%	5	16	21	\$65,900 Moderate-term on-the-job training
	Sales Managers*	567	78	13.65%	8	12	20	\$96,217 Bachelor's degree plus work exp.
	1st-Line Spvrs/Mgrs, Production Workers*	1,349	-70	-5.22%	0	18	18	\$54,614 Work experience in a related occ.
	Purchasing Agents & Buyers, Farm Products	745	-18	-2.42%	0	17	17	\$50,878 Work experience in a related occ.
11-3071	Transportation, Storage & Dist. Managers*	415	-19	-4.56%	0	11	11	\$84,179 Work experience in a related occ.
Animal S	Systems							
	Farmers & Ranchers	57,067	-4,175	-7.32%	0	349	349	\$43,611 Long-term on-the-job training
	Veterinary Technologists & Technicians	1,941	565	29.11%	57	49	106	\$36,727 Associate degree
29-1131	Veterinarians	2,013	595	29.56%	60	35	95	\$73,599 First professional degree
31-9096	Vet Assistants & Lab Animal Caretakers	2,983	541	18.14%	54	33	87	\$22,525 Short-term on-the-job training
11-9011	Farm, Ranch & Other Agricultural Managers	3,146	10	0.32%	1	64	65	\$30,771 Bachelor's degree plus work exp.
45-2093	Farmworkers, Farm & Ranch Animals	1,083	-75	-6.93%	0	29	29	\$23,551 Short-term on-the-job training
	Animal Scientists	14	0	0.00%	0	1	1	\$50,360 Bachelor's degree
25-1041	Agricultural Sciences Faculty	139	9	6.47%	1	2	3	\$52,810 Doctoral degree
Environr	nental Service Systems							
	Environmental Science & Protection Techs*	584	81	13.74%	8	25	33	\$41,787 Associate degree
	Environmental Scientists & Specialists*	536	55	10.12%	6	15	21	\$67,350 Master's Degree
	Environmental Engineers*	525	98	18.63%	10	11	21	\$82,040 Bachelor's degree
	Soil & Plant Scientists	316	22	6.96%	2	11	13	\$63,632 Bachelor's degree
25-1053	Environmental Science Faculty	26	3	11.54%	0	1	1	\$50,322 Doctoral degree
Eand Dr	oducts & Processing Systems							
	Butchers & Meat Cutters	7,739	250	3.23%	25	248	273	\$25,967 Long-term on-the-job training
	Meat, Poultry & Fish Cutters & Trimmers	5,607	359	6.40%	36	180	216	\$23,968 Short-term on-the-job training
	Slaughterers & Meat Packers	5,082	81	1.59%	8	163	171	\$22,940 Moderate-term on-the-job training
	Graders & Sorters, Agricultural Products	1,253	-30	-2.39%	0	26	26	\$20,189 Work experience in a related occ.
	Agricultural Inspectors	544	25	4.60%	3	11	14	\$46,641 Work experience in a related occ.
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	Agricultural Engineers	78	1	1.28%	0	2	2	\$72,813 Bachelor's degree
	Food Scientists & Technologists*	248	18	7.54%	2	9	11	\$56,728 Bachelor's degree
	Microbiologists*	208	10	5.06%	1	3	4	\$63,338 Doctoral degree
	Agricultural & Food Science Technicians	524	28	5.34%	3	18	21	\$34,321 Associate degree
29-1031	Dietitians & Nutritionists*	552	38	6.84%	4	19	23	\$51,297 Bachelor's degree
13-1021	Purchasing Agents & Buyers, Farm Products	745	-18	-2.42%	0	17	17	\$50,878 Work experience in a related occ.
	Sales Reps, Whls/Mfg, exc. Tech/Sci. Products*	4,011	116	2.90%	12	93	105	\$54,727 Moderate-term on-the-job training
41-4011	Sales Reps, Whls/Mfg, Tech/Scientific Products*	707	46	6.52%	5	16	21	\$65,900 Moderate-term on-the-job training

Note: Food preparation workers including chefs and cooks are not included in this initial analysis. They play key roles within the Food Products and Processing Systems Pathway in developing and improving prepared food products for processing and distribution throughout the food supply chain, but work predominantly within the hospitality and culinary sector. These occupations may be added in future analysis after consultation with agriculture and hospitality stakeholders.

Natural Resources Systems									
11-9121	Natural Sciences Managers	1,209	45	3.72%	5	36	41	\$129,345 Bachelor's degree plus work exp.	
19-4021	Biological Technicians*	404	34	8.43%	3	6	9	\$40,044 Associate degree	
19-1031	Conservation Scientists	296	5	1.69%	1	3	4	\$64,814 Bachelor's degree	
45-4011	Forest & Conservation Workers	264	20	7.58%	2	7	9	\$48,319 Moderate-term on-the-job training	
19-4093	Forest & Conservation Technicians	250	12	4.80%	1	11	12	\$36,469 Associate degree	
Plant Systems									
19-1013	Soil & Plant Scientists	316	22	6.96%	2	11	13	\$63,632 Bachelor's degree	
17-1012	Landscape Architects	845	181	21.42%	18	14	32	\$62,901 Bachelor's degree	
37-1012	1st-Line Spvrs/Mgrs, Landscaping & Lawn Serv.	7,013	1211	17.27%	121	76	197	\$41,855 Work experience in a related occ.	
	Landscaping & Groundskeeping Workers	43,617	9703	22.25%	970	525	1,495	\$24,338 Short-term on-the-job training	
37-3013	Tree Trimmers & Pruners	971	226	23.27%	23	12	35	\$33,160 Short-term on-the-job training	
37-3012	Pesticide Handlers, Sprayers & Applicators	1,468	253	17.23%	25	18	43	\$29,291 Moderate-term on-the-job training	
37-3019	Grounds Maintenance Workers, All Other	1,445	184	12.73%	18	17	35	\$23,172 Short-term on-the-job training	
11-9012	Farmers & Ranchers	57,067	-4,175	-7.32%	0	349	349	\$43,611 Long-term on-the-job training	
45-2092	Farmworkers & Laborers, Nursery/Greenhouse	8,874	-491	-5.53%	0	239	239	\$22,727 Short-term on-the-job training	
Power Structural & Technical Systems									
49-3041	Farm Equipment Mechanics	1,275	135	10.59%	14	24	38	\$33,734 Postsecondary vocational award	
45-2091	Agricultural Equipment Operators	1,268	-79	-6.23%	0	34	34	\$28,904 Moderate-term on-the-job training	
49-3031	Truck Mechanics & Diesel Engine Specialists*	276	24	8.60%	2	6	8	\$44,148 Postsecondary vocational award	
49-3042	Mobile Heavy Equipment Mechanics*	157	16	10.38%	2	3	5	\$52,823 Postsecondary vocational award	
17-3023	Electrical & Eletronic Engineering Technicians*	1,082	-28	-2.61%	0	21	21	\$56,099 Associate degree	
15-1041	Computer Support Specialists*	19	-1	-5.26%	0	0	1	\$47,828 Associate degree	

Note: \* Share in the Agribusiness Industry.