

December 12, 2019 Board Meeting

- **November Crop Production Report**

- In WI, corn is expected to yield 163 bushels per acre, down 9 bushels per acre from 2018. Production is forecasted at 463 million bushels.
 - US corn production is forecasted at 13.7 billion bushels, down 5 percent from last year. Based on conditions as of November 1, yields are expected to average 167.0 bushels per acre, down 9.4 bushel per bushel from 2018.
- Soybean production in WI is forecast at 79.6 million bushels. Soybean yield is forecasted at 46 bushels per acre, down 2.0 bushels per acre from 2018.
 - US soybean yield is expected to average 46.9 bushels per acre down 3.7 bushels from last year, and production is forecasted at 3.55 billion bushels.
- Next Crop Production Report is the annual/final report released January 10, 2020.

- **2017 Wisconsin Specialty Crops**

- In 2017, Wisconsin had 7,676 specialty crop farms on 323,485 acres.
- Orchards: 1,552 farms on 8,362 acres.
- Berries: 1,201 farms on 23,172 acres.
- Vegetable: 3,157 farms on 243,441 acres.
- Nursery, greenhouse, floriculture and sod: 1,545 farms on 15,495 acres.
- Christmas Trees: 859 farms on 23,373 acres.
- Maple Syrup: 1,399 farms with 987,418 taps.

- **Farm Labor**

- During the week of October 6 - 12, 2019, there were 68,000 workers hired by farms in the Lake Region (Michigan, Minnesota, and Wisconsin). The hired workers received an average wage rate \$15.64 per hour, up 50 cents from October 2018. The number of hours worked averaged 41.0 for hired workers during the reference week.

- **Milk Production**

- In October, WI milk production totaled 2.57 billion pounds, up 1 percent from the previous October.
- Milk production in the 24 major states totaled 17.3 billion pounds. This is up 1.7 percent from the previous year. Production in TX was up over 9 percent from last September.
- As of November 1, 2019, WI had 7,392 milk cow herds. This is down 825 herds from November 2018.
- See attached charts for 10 year number of Wisconsin dairy farms and milk cow numbers. Along with a chart for 10 year average number of milk cows per farm.

- **Chicken & Eggs**

- Wisconsin egg production during October totaled 191 million eggs. This is up 12 percent from last year.
- The average number of all layers on hand during September was 7.36 million which is up 4 percent from October 2018.

- **October Prices Received**

- Milk price for September was \$20.50 per cwt. This was \$2.70 per cwt higher than October 2019. The US price for October was \$19.90.
- Corn \$3.76 per bushel up 38 cents from last October.
- Soybeans \$8.537 per bushel down 17 cents from last year.
- Alfalfa hay \$213.00 per ton up \$48.00 per ton from October 2018.

- **Wisconsin Crop Progress as of December 1st**
 - Corn harvest was 66 percent complete, 22 days behind last year and 21 days behind the 5-year average.
 - Soybean harvest was 86 percent complete, 19 days behind last year.
 - Moisture and poor field conditions have led to the delayed harvest. Some unharvested crops would be left in the fields, particularly in areas with deep snow cover.
 - Handling of manure continues to be a problem for dairy farmers.

- **Wisconsin Irrigation and Water Management**
 - Results are from the 2018 Irrigation and Water Management Survey which is a Census of Agriculture follow-on survey.
 - In 2018, Wisconsin farms irrigated 520,000 acres and applied 250,000 acre-feet of water. An “Acre-foot” is the amount of water required to cover one acre to a depth of one foot. This is equivalent to 325,851 gallons.
 - 1,733 Wisconsin farms used 5,166 wells in 2018 for irrigation.
 - Wisconsin producers relied on three sources of water for irrigation: ground water from on-farm wells, surface water on the farm, and off-farm water from a variety of sources and suppliers.
 - Total energy expenses for pumping well and surface water in Wisconsin amounted to \$18.1 million.

- **Other noteworthy items:**
 - 2019 Wisconsin Agricultural Statistics Bulletin hard copies are available. Thank DATCP for their help in putting this together and funding for printing the books.



Wisconsin Crop Progress & Condition



Upper Midwest Region - Wisconsin Field Office · 2811 Agriculture Drive · Madison WI 53718-6777 · (608) 224-4848
fax (855) 271-9802 · www.nass.usda.gov

Cooperating with Wisconsin Department of Agriculture, Trade and Consumer Protection

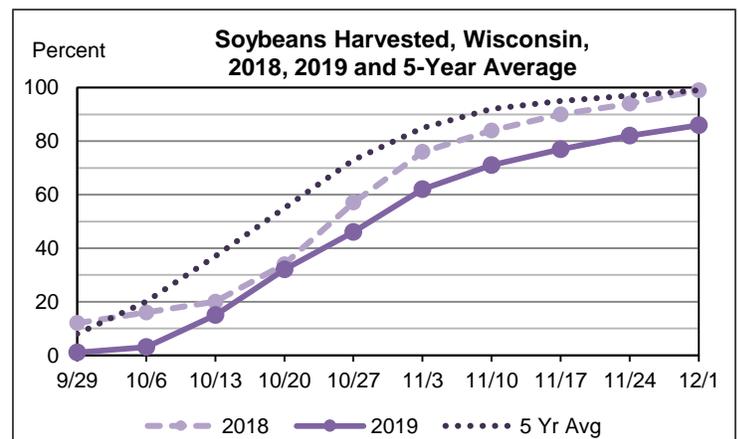
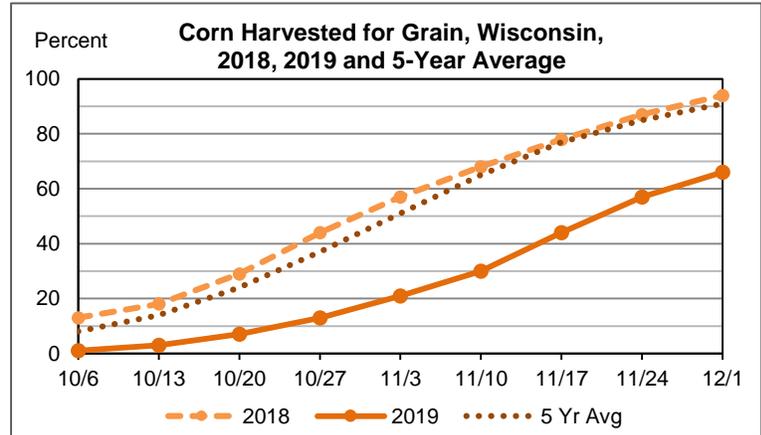
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For the week ending December 1, 2019
Media Contact: Greg Bussler

Wisconsin had 3.0 **days suitable for fieldwork** for the week ending December 1, 2019, according to the USDA's National Agricultural Statistics Service. Farmers got a short window of favorable conditions at the beginning of this week, allowing corn and soybeans harvesting to advance. High grain moistures continued to impede grain storage and driers were going full blast as crops came in. Back to back winter storms then slowed or halted fieldwork for the rest of the week. Wednesday's storm delivered rain, freezing rain and high winds, while a multi-day weekend storm brought a mix of rain, sleet, and wet snow. Northern and central Wisconsin ended the week with snow on the ground; reporters noted over a foot of snow accumulation in some areas. The southern districts saw little to no snow accumulation, leaving the ground a slippery, partially frozen mess. Reporters commented that some unharvested crops would be left in the fields, particularly in areas with deep snowcover.

Harvest of **corn** for grain was 66 percent complete, 22 days behind last year and 21 days behind the 5-year average. The moisture content of corn harvested for grain was reported at 23 percent.

Soybean harvest was 86 percent complete, 19 days behind last year.



Crop Progress as of December 1, 2019

Item	Districts										State			
	NW	NC	NE	WC	C	EC	SW	SC	SE	This week	Last week	Last year	5-year average	
Corn harvested for grain	(percent) 64	(percent) 43	(percent) 55	(percent) 57	(percent) 57	(percent) 62	(percent) 80	(percent) 75	(percent) 65	(percent) 66	(percent) 57	(percent) 94	(percent) 91	
Soybeans harvested	93	81	75	95	91	73	84	86	86	86	82	99	99	

Days Suitable for Fieldwork as of December 1, 2019

Item	Districts										State		
	NW	NC	NE	WC	C	EC	SW	SC	SE	This week	Last week	Last year	
Days suitable	(days) 2.3	(days) 3.8	(days) 3.1	(days) 2.3	(days) 3.2	(days) 2.8	(days) 3.4	(days) 3.0	(days) 3.5	(days) 3.0	(days) 4.2	(days) NA	

NA= not available

Selected Quotes from Farm Reporters and County Ag Agents

All comments are used in creating this report, but only a few are published below.

NW—CHIPPEWA-T.P.: Close to a foot of snow this week. Tillage is done for the year.

NW—RUSK-G.P.: Some corn off early in the week, but twin snowstorms have shut down harvest for now. About 15 inches of snow on the ground and wet snow is hanging up on the trees and on the standing corn. Temps should allow some of that to melt off so hopefully more combining can be done. Some corn will stand into next spring and may or may not be harvested.

NC—CLARK-R.H.: Six inches of heavy wet snow on Wednesday has slowed down the corn harvest. Much of the corn is higher in moisture than most would like and has slowed harvest. Snow and rain is in forecast for Friday through Sunday. Hope everyone had a great Thanksgiving break and please be safe as we move forward with the harvest.

NE—SHAWANO-B.R.: Over two inches of rain in the last ten days with several inches of snow mixed in between. Makes for a miserable week. There were a fair amount of soybeans taken off late last week when the ground was frozen hard. Still a lot of corn to come off that is very high in moisture.

WC—BUFFALO/PEPIN-M.L.: Water table increasing again causing springs to pop up in fields and field roads, making moving equipment in to harvest difficult. Wet snow and rain most of week.

WC—LA CROSSE-I.H.: Snow, rain and deer hunting got in the way of harvesting corn. Beans will remain in the field, a lot have dropped off or still are in wet spots and cannot be harvested. To say this has been a hard year for harvesting crops is an understatement. Frustration exists.

WC—TREMPEAULEAU-L.N.: The snow hit hard this week, first freezing rain and then snow. Many acres are left in the field unharvested. What has been harvested is showing low test weights and high moisture. Fields are uneven and yields less than expected.

C—PORTAGE/WOOD-J.W.: Finished soybean harvest, moving to corn harvest. Feeding of cattle and manure hauling.

EC—SHEBOYGAN-T.S.: Corn and soybean harvest continued where able this week. Any remaining soybeans most likely will not get harvested as they are now buried in snow. Colder temperatures are keeping the ground frozen so corn harvest will be able to continue. Moistures remain high.

EC/SE—FOND DU LAC/WASHINGTON-B.B.: Combines saw limited work in the fields before another inch of rainfall mid-week. Operators will need frozen ground to continue with the harvest. Corn is standing fairly well given all the rain/snow in October and November and the high winds that came with the mid-week storm.

SW—VERNON-K.L.: Another week of rain and snow. Fields are slippery and harvesting is hampered. Some of the later planted corn is 30 percent moisture. One producer reported driving to Kansas for LP gas for drying corn. Some soybeans remain in the fields. This has been a tough year for farming, whether it was in planting or in harvesting.

SC—COLUMBIA-G.K.: Couple of nice days to combine corn early in the week, even though the soils were wet. Then came the rain, and the rain, and the rain, and the snow. Soils are totally saturated and very muddy. Will need many drying days or freezing temps to firm up the ground in order to get the combines rolling again.

SC—GREEN-J.T.: Many manure pits are still full and will be a problem this winter.

Wisconsin Weekly Weather, Selected Cities, Ending as of 7:00 a.m. on December 1, 2019

City	Temperature						Precipitation	
	Avg. max.	Avg. min.	High max.	Low min.	Avg.	Avg. dep. from normal *	Last Week	Year To date
Eau Claire.....	38	28	47	15	33	+6	1.11	41.97
Green Bay	41	33	48	30	37	+7	1.68	46.71
La Crosse	40	31	50	28	36	+5	1.33	43.28
Madison.....	42	30	51	27	36	+5	1.14	44.90
Milwaukee.....	45	33	53	29	39	+5	1.03	44.24

*Normal based on 1971-2000 data. NA=not available. T=trace Source: NCEP/NOAA Climate Prediction Center <https://www.cpc.ncep.noaa.gov>.

For more weather data, please reference the following sites:
<https://www.noaa.gov/> <http://www.aos.wisc.edu/~sco/> <https://www.cocorahs.org/> <https://www.weather.gov/>

This report has been made possible through the cooperative efforts of the U.S. Department of Agriculture, the Wisconsin Department of Agriculture, Trade, and Consumer Protection, and the National Weather Service.



WISCONSIN FARM REPORTER

November 12, 2019 - Vol. 19, No. 20

Inside This Issue:

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The Wisconsin Farm Reporter is compiled from data and reports released by the USDA, National Agricultural Statistics Service (NASS). All NASS data and reports are available free at www.nass.usda.gov

September Milk Prices

The Wisconsin all milk price for September 2019 was \$19.90 per hundredweight (cwt). This was 80 cents higher than last month's price and \$2.40 higher than last September's price.

The U.S. all milk price for September was \$19.30 per cwt, 60 cents lower than Wisconsin's price but 40 cents higher than last month's U.S. price. Nineteen of the 24 major milk producing states had a higher price when compared with August, while 5 states had a lower price. Iowa has the largest price increase, up \$1.10, to \$20.40 per cwt.

The Chicago Mercantile Exchange* (CME) 40-pound block cheese price closed at \$2.1750 per pound on October 31, while barrels were \$2.2875 per pound. The CME butter price was \$2.0825 per pound.

For the week ending October 26, 2019, the Agricultural Marketing Service* U.S. weekly 40-pound block cheese price averaged \$2.0570 per pound, and 500 pound barrels adjusted to 38 percent moisture averaged \$1.9685 per pound. The U.S. butter price was \$2.1435 per pound.

Milk Prices¹

Selected states	September 2018		August 2019		September 2019	
	Price per cwt.	Fat test	Price per cwt.	Fat test	Price per cwt.	Fat test
	(dollars)	(percent)	(dollars)	(percent)	(dollars)	(percent)
Milk for all uses						
CA	16.56	3.89	18.70	3.71	18.60	3.78
ID	16.40	3.93	18.30	3.82	19.10	3.94
IA	17.40	3.88	19.30	3.84	20.40	3.90
MI	15.40	3.73	17.60	3.69	17.90	3.77
MN	17.70	3.95	19.40	3.92	20.40	3.97
NM	15.10	3.65	17.20	3.64	17.40	3.69
NY	17.10	3.76	19.10	3.74	19.40	3.84
PA	17.10	3.71	19.40	3.71	19.60	3.81
TX	17.30	4.04	19.20	4.02	19.60	4.06
WI	17.50	3.82	19.10	3.77	19.90	3.85
US	16.90	3.84	18.90	3.78	19.30	3.85

1. Before deduction for hauling. Includes quality, quantity, and other premiums. Excludes hauling subsidies.

Prices Received by Farmers

The September 2019 average price received by farmers for **corn** in Wisconsin was \$3.69 per bushel. This was down 20 cents from August but up 40 cents from the previous September.

The September **soybean** price, at \$8.17 per bushel, was down 8 cents from August and down 75 cents from the previous September.

The September **oat** price was \$3.07 per bushel, 4 cents above the August price and 43 cents above September 2018.

All hay prices in Wisconsin averaged \$176.00 per ton in September, up \$6.00 from August and \$31.00 above September 2018. The **alfalfa hay** price averaged \$190.00 per ton in September, down \$2.00 from August but \$36.00 above the previous September. The **other hay** price averaged \$135.00, up \$23.00 from August and up \$15.00 from the September 2018 price.

Prices received for **milk cows** for dairy herd replacement averaged \$1,270 per head as of October 1, 2019.

Prices Received by Farmers

<u>WISCONSIN</u>		September 2018	August 2019	September 2019
(dollars)				
Corn	bu	3.29	3.89	3.69
Hay, all baled	ton	145.00	170.00	176.00
Alfalfa	ton	154.00	192.00	190.00
Other	ton	120.00	112.00	135.00
Oats	bu	2.64	3.03	3.07
Soybeans	bu	8.92	8.25	8.17
Milk cows ^{1,2}	head	1,180.00	1,210.00	1,270.00
<u>UNITED STATES</u>		September 2018	August 2019	September 2019
(dollars)				
Corn	bu	3.40	3.93	3.80
Hay, all baled	ton	164.00	162.00	159.00
Alfalfa	ton	179.00	179.00	181.00
Other	ton	135.00	127.00	120.00
Oats	bu	2.62	2.76	2.76
Soybeans	bu	8.78	8.22	8.35
Milk cows ^{1,2}	head	1,230.00	1,240.00	1,310.00
Calves	cwt	169.00	142.00	144.00
Cattle, all beef	cwt	108.00	111.00	103.00
Cows ³	cwt	60.80	68.30	65.60
Steers & Heifers	cwt	110.00	112.00	104.00
Hogs, all	cwt	43.20	58.50	47.70
Barrows & Gilts	cwt	43.70	59.30	48.30
Sows	cwt	28.60	38.30	31.90
Eggs (market) ⁴	doz	0.711	0.662	0.424

¹ Animals sold for dairy herd replacement only. Prices available for January, April, July, and October. ² Milk cow prices are for October 1, 2018, July 1, 2019, and October 1, 2019. ³ Beef cows and cull dairy cows sold for slaughter. ⁴ Mid-month price. Also referred to as table eggs.

Crop Production

Wisconsin

Wisconsin **corn** production is forecast at 463 million bushels. Based on conditions as of November 1, yields are expected to average 163 bushels per acre, unchanged from the October 1 forecast but down 9 bushels per acre from last year. Corn planted acreage is estimated at 3.85 million acres. An estimated 2.84 million acres will be harvested for grain.

Soybean production is forecast at 79.6 million bushels. The yield is forecast at 46.0 bushels per acre, unchanged from the October 1 forecast but down 2.0 bushels below last year. Soybean planted acreage is estimated at 1.75 million acres with 1.73 million acres to be harvested.

Potato production is forecast at 29.0 million hundredweight (cwt), up 7 percent from 2018. The potato yield is forecast at 420 cwt per acre, up 15 cwt from 2018. Wisconsin potato growers expect to harvest 69,000 acres, up 2,000 acres from last year.

The forecasts in this report are based on November 1 conditions and do not reflect weather effects since that time. The next corn and soybean production estimates will be published in the *Crop Production – Annual Summary* report which will be released January 10, 2020.

United States

Corn production for grain is forecast at 13.7 billion bushels, down 1 percent from the previous forecast and down 5 percent from last year. Based on conditions as of November 1, yields are expected to average 167.0 bushels per harvested acre, down 1.4 bushels from the previous forecast and down 9.4 bushels from 2018. Area harvested for grain is forecast at 81.8 million acres, unchanged from the previous forecast but up slightly from 2018.

Soybean production for beans is forecast at 3.55 billion bushels, down slightly from the previous forecast and down 20 percent from last year. Based on conditions as of November 1, yields are expected to average 46.9 bushels per acre, unchanged from the previous forecast but down 3.7 bushels from 2018. Area harvested for beans in the United States is forecast at 75.6 million acres, unchanged from the previous forecast but down 14 percent from 2018.

2019 Corn for Grain Objective Yield Data

The National Agricultural Statistics Service conducted objective yield surveys in 10 corn-producing States during 2019. Randomly selected plots in corn for grain fields were visited monthly from August through harvest to obtain specific counts and measurements. Data in these tables are rounded actual field counts from this survey.

Corn for Grain: Plant Population per Acre, Selected States, 2015-2019

State	2015	2016	2017	2018	2019 ¹
	Number				
IA	31,450	31,050	31,150	31,100	30,750
MN	30,750	30,550	30,600	30,900	30,550
WI	29,450	29,800	29,150	30,650	29,750

¹Estimated November 1, 2019.

Corn for Grain: Number of Ears per Acre, Selected States, 2015-2019

State	2015	2016	2017	2018	2019 ¹
	Number				
IA	30,850	30,500	30,600	30,800	30,100
MN	30,450	30,250	30,850	30,800	29,650
WI	28,600	28,750	28,600	30,450	29,850

¹Estimated November 1, 2018.

Corn for Grain: Percentage Distribution by Plant Population Per Acre, Wisconsin, 2015-2019

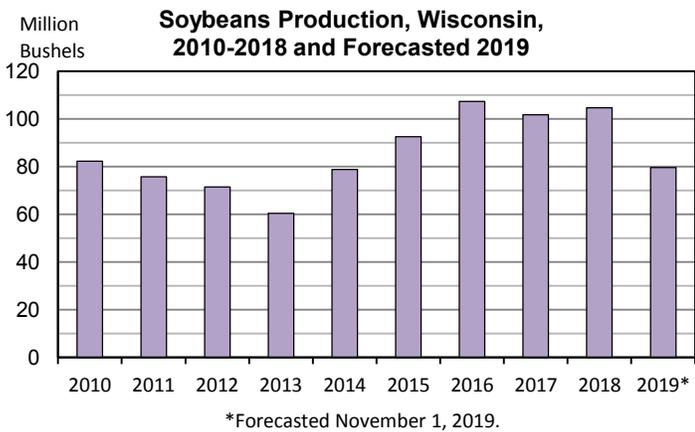
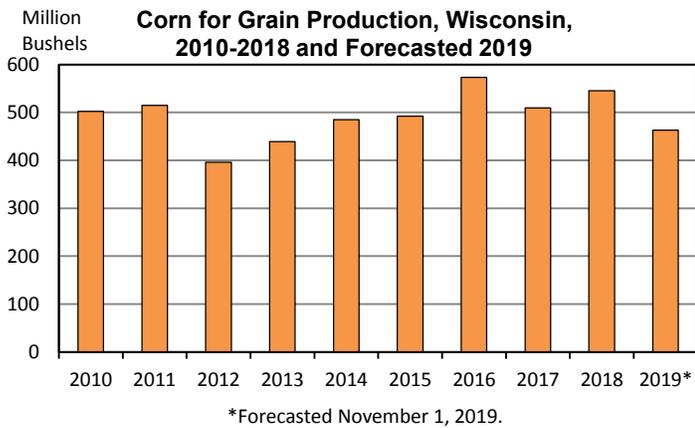
Year	Less than 20,000	20,000 - 22,500	22,501 - 25,000	25,001 - 27,500	27,501 - 30,000	More than 30,000
	Percent					
2015	2.4	2.4	7.3	14.6	23.2	50.1
2016	2.4	4.9	3.7	11.0	18.3	59.7
2017	3.9	2.6	6.6	19.7	21.1	46.1
2018	2.0	2.0	-	7.9	19.8	68.3
2019	-	-	11.8	14.7	23.5	50.0

Corn for Grain: Percentage Distribution by Measured Row Width and Average Row Width, as of November 1, 2019, Selected States

State	No. of Samples	Row Width (inches)						Average Row Width
		20.5 or Less	20.6 - 30.5	30.6 - 34.5	34.6 - 36.5	36.6 - 38.5	38.6 & Greater	
		Percent						Inches
IA	133	1.5	78.1	18.8	0.8	0.8	-	30.0
MN	73	5.5	72.6	17.8	4.1	-	-	28.9
WI	34	2.9	79.5	14.7	-	-	2.9	29.9

Area Harvested, Yield, and Production Summary, Wisconsin and United States: 2017 and Forecasted November 1, 2018

State	Area harvested		Yield per acre		Production	
	2018	2019	2018	2019	2018	2019
	(1,000 acres)		(units)		(1,000 units)	
WISCONSIN						
Corn (bu)	3,170	2,840	172.0	163.0	545,240	462,920
Potatoes, all (cwt)	67.0	69.0	405	420	27,135	28,980
Soybeans (bu)	2,180	1,730	48.0	46.0	104,640	79,580
UNITED STATES						
Corn (bu)	81,740	81,815	176.4	167.0	14,420,101	13,661,005
Potatoes, all (cwt)	1,014.8	938.9	443	450	450,020	422,451
Soybeans (bu)	87,594	75,626	50.6	46.9	4,428,150	3,549,977



U.S. Corn Supply and Use¹

CORN	2017-2018	2018-2019 (Est.)	2019-2020 ² Projections November
<i>(million bushels)</i>			
Beginning Stocks	2,293	2,140	2,114
Production	14,609	14,420	13,661
Imports	36	28	50
Supply, total	16,939	16,588	15,825
Feed & Residual	5,304	5,618	5,275
Food, Seed & Industrial	7,057	6,791	6,790
Domestic, total	12,361	12,409	12,065
Exports	2,438	2,065	1,850
Use, total	14,798	14,474	13,915
Ending Stocks, total	2,140	2,114	1,910
Avg. farm price (\$/bu)	3.36	3.61	3.85

¹Source: USDA OCE World Agricultural Supply and Demand Estimates Report <http://www.usda.gov/oce/commodity/wasde/index.htm> ²Preliminary

U.S. Soybean Supply and Use¹

SOYBEANS	2017-2018	2018-2019 (Est.)	2019-2020 ² Projections November
<i>(million bushels)</i>			
Beginning Stocks	302	438	913
Production	4,412	4,428	3,550
Imports	22	14	20
Supply, total	4,735	4,880	4,483
Crushings	2,055	2,092	2,105
Exports	2,134	1,748	1,775
Seed	104	89	96
Residual	5	39	32
Use, total	4,297	3,967	4,008
Ending stocks	438	913	475
Avg. farm price (\$/bu)	9.33	8.48	9.00

¹Source: USDA OCE World Agricultural Supply and Demand Estimates Report <http://www.usda.gov/oce/commodity/wasde/index.htm> ²Preliminary

Chickens & Eggs

Wisconsin **egg production** during September 2019 was 174 million eggs, down 5 percent from last month but up 1 percent from last year. The average number of **all layers on hand** during September 2019 was 6.96 million, virtually unchanged from last month but down 3 percent from last year. **Eggs per 100 layers** for September were 2,494, down 5 percent from last month but up 4 percent from last year.

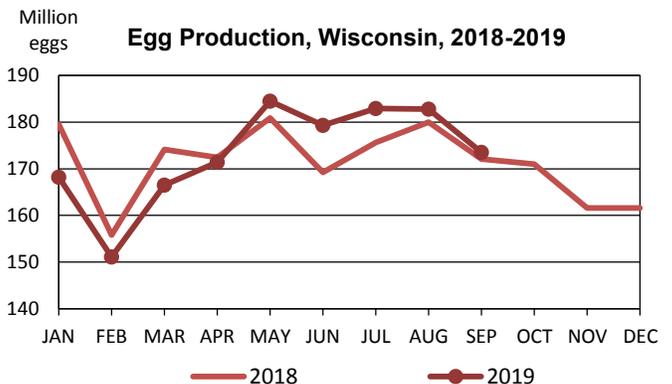
United States egg production totaled 9.19 billion during September 2019, up 2 percent from last year. Production included 8.04 billion table eggs, and 1.15 billion hatching eggs, of which 1.07 billion were broiler-type and 81.7 million were egg-type. The average number of layers during September 2019 totaled 394 million, up 1 percent from last year. September egg production per 100 layers was 2,332 eggs, up 1 percent from September 2018.

Total layers in the United States on October 1, 2019 totaled 395 million, up 1 percent from last year. The 395 million layers consisted of 333 million layers producing table or market type eggs, 58.2 million layers producing broiler-type hatching eggs, and 3.46 million layers producing egg-type hatching eggs. Rate of lay per day on October 1, 2019, averaged 77.6 eggs per 100 layers, up 1 percent from October 1, 2018.

Layers on Hand and Eggs Produced Wisconsin and United States, September 2018 and 2019

Commodity	Wisconsin		United States	
	2018	2019	2018	2019
Table egg layers in flocks 30,000 & above.....(1,000 layers)	6,102	5,854	315,641	317,044
All layers on hand.....(1,000 layers)	7,195	6,958	391,745	394,120
Eggs per 100 layers.....(eggs)	2,392	2,494	2,311	2,332
Total egg production.....(million eggs)	172.1	173.5	9,052.4	9,189.5
Table egg production.....(million eggs)	(D)	168.0	7,898.8	8,035.2

(D) Withheld to avoid disclosing data for individual operations.



Milk Production

Milk production in Wisconsin during September 2019 totaled 2.52 billion pounds, up 1 percent from the previous September. The average number of milk cows during September, at 1.27 million head, was the same as last month and down 6,000 from last year. Monthly production per cow averaged 1,985 pounds, up 20 pounds from last September.

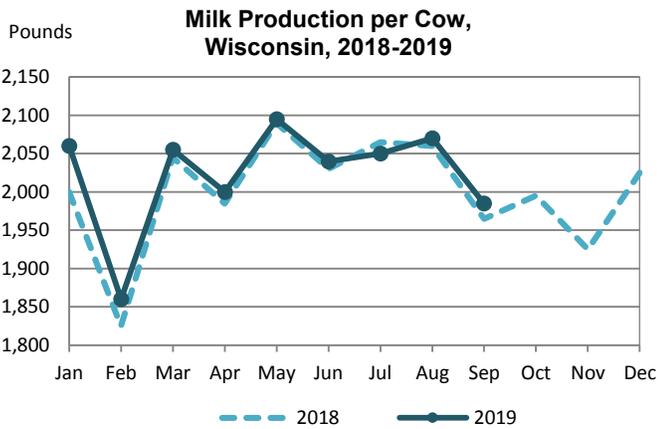
Milk production in the 24 major States during September totaled 16.8 billion pounds, up 1.6 percent from September 2018. August revised production at 17.5 billion pounds, was up 0.5 percent from August 2018. The August revision represented an increase of 32 million pounds or 0.2 percent from last month's preliminary production estimate. Production per cow in the 24 major States averaged 1,913 pounds for September, 33 pounds above September 2018. The number of milk cows on farms in the 24 major States was 8.80 million head, 11,000 head less than September 2018, but 7,000 head more than August 2019.

Milk production in the United States during the July - September quarter totaled 54.3 billion pounds, up 0.5 percent from the July - September quarter last year. The average number of milk cows in the United States during the quarter was 9.32 million head, 10,000 head less than the April - June quarter, and 66,000 head less than the same period last year.

September Milk Production

State	Milk cows ¹		Milk per cow ²		Production ²		Change from 2018
	2018	2019	2018	2019	2018	2019	
	(thousand head)		(pounds)		(million pounds)		(percent)
Arizona	206	195	1,795	1,805	370	352	-4.9
California	1,732	1,727	1,860	1,895	3,222	3,273	+1.6
Colorado	178	188	2,115	2,110	376	397	+5.6
Florida	118	116	1,380	1,415	163	164	+0.6
Georgia	80	79	1,610	1,595	129	126	-2.3
Idaho	610	627	2,045	2,060	1,247	1,292	+3.6
Illinois	88	83	1,570	1,600	138	133	-3.6
Indiana	182	175	1,770	1,800	322	315	-2.2
Iowa	220	217	1,920	1,950	422	423	+0.2
Kansas	160	162	1,870	1,895	299	307	+2.7
Michigan	422	428	2,115	2,165	893	927	+3.8
Minnesota	451	446	1,770	1,810	798	807	+1.1
New Mexico	327	327	2,005	2,045	656	669	+2.0
New York	621	627	1,950	1,965	1,211	1,232	+1.7
Ohio	255	251	1,680	1,725	428	433	+1.2
Oregon	122	125	1,690	1,705	206	213	+3.4
Pennsylvania	517	485	1,610	1,650	832	800	-3.8
South Dakota	121	126	1,840	1,865	223	235	+5.4
Texas	540	570	1,925	1,995	1,040	1,137	+9.3
Utah	100	96	1,920	1,915	192	184	-4.2
Vermont	126	125	1,720	1,745	217	218	+0.5
Virginia	81	73	1,520	1,560	123	114	-7.3
Washington	277	281	1,995	2,005	553	563	+1.8
Wisconsin	1,273	1,267	1,965	1,985	2,501	2,515	+0.6
24-State Total	8,807	8,796	1,880	1,913	16,561	16,829	+1.6

¹Includes dry cows. Excludes heifers not yet fresh. ²Excludes milk sucked by calves.



The Wisconsin Farm Reporter has been made possible through the cooperative efforts of the U.S. Department of Agriculture, National Agricultural Statistics Service and the Wisconsin Department of Agriculture, Trade, and Consumer Protection.

Media contact: Greg Bussler
 USDA, NASS, Upper Midwest Region,
 Wisconsin Field office

(800)789-9277
 (608)224-4848
<http://www.nass.usda.gov/wi/>



WISCONSIN FARM REPORTER

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- Farm Labor
- Irrigation and Water Management
- Milk Production

The Wisconsin Farm Reporter is compiled from data and reports released by the USDA, National Agricultural Statistics Service (NASS). All NASS data and reports are available free at www.nass.usda.gov

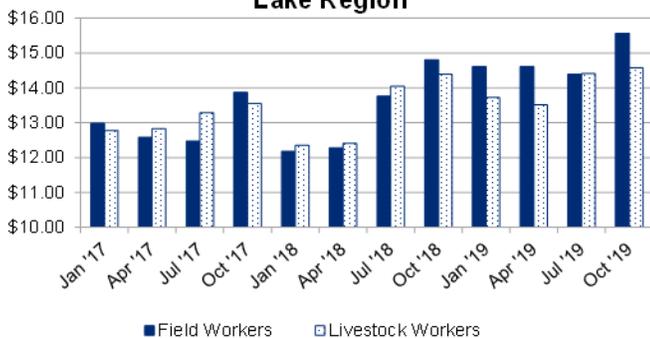
Farm Labor

Lake Region

There were 66,000 workers hired directly by farms in the Lake Region (Michigan, Minnesota, and Wisconsin) during the reference week of July 7-13, 2019. Farm operators paid their hired workers an average wage rate of \$15.05 per hour, up \$0.56 from July 2018. The number of hours worked averaged 40.5 for hired workers during the reference week, compared with 39.3 hours in July 2018.

During the reference week of October 6-12, 2019, there were 68,000 workers hired directly by farms in the Lake Region (Michigan, Minnesota, and Wisconsin). Farm operators paid their hired workers an average wage rate of \$15.64 per hour during the October 2019 reference week, up \$0.50 from October 2018. The number of hours worked averaged 41.0 for hired workers during the reference week, up from 37.8 hours in October 2018.

**Wage Rates by Type of Worker
Lake Region**



United States

There were 809,000 workers hired directly by farm operators on the Nation's farms and ranches during the week of October 6-12, 2019, up 3 percent from the October 2018 reference week. Workers hired directly by farm operators numbered 802,000 during the week of July 7-13, 2019, down 5 percent from the July 2018 reference week.

Farm operators paid their hired workers an average gross wage of \$15.02 per hour during the October 2019 reference week, up 4 percent from the October 2018 reference week. Field workers received an average of \$14.38 per hour, up 5 percent. Livestock workers earned \$13.77 per hour, up 3 percent. The field and livestock worker combined gross wage rate, at \$14.21 per hour, was up 4 percent from the 2018 reference week. Hired laborers worked an average of 42.5 hours during the October 2019 reference week, up 2 percent from the hours worked during the October 2018 reference week.

Farm operators paid their hired workers an average gross wage of \$14.91 per hour during the July 2019 reference week, up 4 percent from the July 2018 reference week. Field workers received an average of \$14.19 per hour, up 4 percent, while livestock workers earned \$13.79 per hour, up 4 percent from a year earlier. The field and livestock worker combined gross wage rate, at \$14.08 per hour, was up 4 percent from the July 2018 reference week. Hired laborers worked an average of 41.7 hours during the July 2019 reference week, up 1 percent from the hours worked during the July 2018 reference week.

The 2019 all hired worker annual average gross wage rate was \$14.91 per hour, up 5 percent from the 2018 annual average gross wage rate. The 2019 field worker annual average gross wage rate was \$14.11 per hour, up 6 percent from the 2018 annual average. The 2019 livestock worker annual average gross wage rate was \$13.74 per hour. The 2019 annual average combined gross wage for field and livestock workers was \$13.99, up 6 percent from the 2018 annual average of \$13.25 per hour.

Hired Workers and Wage Rates – Lake Region¹ and United States: 2018-2019

	Lake Region			United States		
	October 2018	July 2019	October 2019	October 2018	July 2019	October 2019
Hired workers on farms (1,000 workers)	66	66	68	784	802	809
Hours worked by hired workers (hours per week)	37.8	40.5	41.0	41.5	41.7	42.5
Wage rate ²						
Field and livestock combined (dollars per hour)	14.60	14.40	15.00	13.64	14.08	14.21
Field (dollars per hour)	14.81	14.39	15.57	13.74	14.19	14.38
Livestock (dollars per hour)	14.39	14.41	14.58	13.38	13.79	13.77
All hired workers (dollars per hour)	15.14	15.05	15.64	14.47	14.91	15.02

1. Lake Region includes Michigan, Minnesota, and Wisconsin. 2. Benefits, such as housing and meals, are provided to some workers but the values are not included in the wage rates.

2017 CENSUS OF AGRICULTURE
YOUR VOICE. YOUR FUTURE. YOUR OPPORTUNITY.

Wisconsin Irrigation and Water Management

Results from the 2018 Irrigation and Water Management Survey



In 2018, U.S. farms irrigated 55.9 million acres with 83.4 million acre-feet of water. The number of farms irrigating and the amount of land irrigated increased slightly between 2013 and 2018, while the total amount of water used for irrigation declined. Irrigation needs vary depending on weather and the commodities grown. Five states accounted for about half of irrigated acres and water applied. Wells provided half of the water used for irrigation, and sprinkler systems were the most widely used distribution method.



231,474
irrigating farms
55.9 million
irrigated acres
83.4 million
acre-feet of water

Number and Location

In 2018, there were 231,474 farms in the United States that irrigated at some point during the year, an increase of 2,237 farms since 2013. They irrigated 55.9 million acres (about one-fourth of their farmland), applying 83.4 million acre-feet of water, a decrease of 5.8 percent from 2013. The average amount of water applied per acre was 1.5 acre-feet, down from 1.6 in 2013.

Five states – California, Nebraska, Arkansas, Texas, and Idaho – together accounted for 50 percent of U.S. irrigated acres in 2018 and 56 percent of total irrigation water applied.

Irrigation provides water to fields in the open and to commodities grown under protection in greenhouses or other structures. Acres in the open accounted for nearly all irrigated acres in 2018.

The 2018 Irrigation and Water Management Survey collected detailed data on irrigation methods and water use on U.S. farms, ranches, and horticultural operations.

U.S. Farms that Irrigated: 2013 and 2018

	2013	2018	% change
Number of farms	229,237	231,474	1.0
Land in farms (acres)	214 mil	222 mil	3.8
Irrigated acres	55.3 mil	55.9 mil	1.1
Acre-feet applied			
U.S. total	88.5 mil	83.4 mil	-5.8
Average per acre	1.6	1.5	

The total amount of water applied declined 5.8 percent between 2013 and 2018.

Irrigated Acreage and Water Use – Selected States: 2018

	Irrigated Acres		Water Applied (acre-feet)	
	million		million	avg per acre
California	8.40	California	24.5	2.9
Nebraska	7.67	Idaho	6.61	1.9
Arkansas	4.25	Texas	5.35	1.3
Texas	4.09	Arkansas	5.07	1.2
Idaho	3.39	Nebraska	4.86	0.6
Minnesota	0.55	Wisconsin	0.29	0.6
Wisconsin	0.52	Minnesota	0.25	0.4
Iowa	0.17	Iowa	0.06	0.4
U.S. Total	55.9	U.S. Total	83.4	1.5

California applied the largest total amount of irrigation water, 24.5 million acre-feet. Arizona applied the most water per acre, an average of 4.7 acre-feet.

Acre-foot

The amount of water required to cover one acre to a depth of one foot. This is equivalent to 43,560 cubic feet or 325,851 gallons.

Water Sources and Distribution

Wisconsin producers relied on three sources of water for irrigation: ground water from on-farm wells, surface water on the farm, and off-farm water from a variety of sources and suppliers. They relied on sprinkler systems, gravity systems, and a variety of drip, trickle, or other low-flow micro systems to distribute the water to open fields.

Water Sources, Acres in the Open – Wisconsin: 2018

	Irrigated Acres	Acre-feet Applied	
Ground water from wells	475,100	269,659	92%
On-farm surface water	40,832	21,334	7%
Off-farm water	8,431	2,438	1%
Total	518,312 ¹	293,908	100%

¹ Total is less than the sum of individual sources because some irrigated acres have more than one water source, and may not add due to rounding.

Ground water from on-farm wells accounted for 92 percent of irrigation water applied to acres in the open.

5,166 Wells

1,733 Wisconsin farms used 5,166 wells in 2018 for irrigation. The average pumping capacity for all pumped wells was 650 gpm.

Of the wells:

- 34 percent had flow meters to measure the amount of water supplied
- 81 percent had backflow prevention devices to prevent cross contamination

Distribution Systems, Acres in the Open – Wisconsin: 2018

	Farms	Irrigated Acres
Sprinkler	1,467	536,698
Gravity	59	244
Drip, trickle, and low-flow micro	499	3,476
Total ¹	1,790	517,394

¹ Total is less than the sum because some farms and acres have more than one distribution system applied and multiple systems of the same type.

In Wisconsin, sprinklers were the most widely used distribution system, covering 536,698 irrigated acres in the open.

166 feet

The average well depth in 2018. The average depth to water at the beginning of irrigation season was 49 feet.

Irrigation Expenses

Total energy expenses for pumping well and surface water in Wisconsin amounted to \$18.1 million. Infrastructure costs for equipment, facilities, land improvement, and computer technology were \$11.6 million. Water purchased from off-farm sources amounted to \$288,000.

Equipment Expenses

Wisconsin farmers spent \$9,256,000 during 2018 on new or replacement equipment and machinery of which 73% was scheduled replacement or maintenance.

Wisconsin farmers spent \$368,000 on new well construction.

Farmers in Wisconsin who irrigated spent \$1,778,000 on computers, control panels, and computer controlled valves and hardware for irrigation water management during the survey year.

About the Survey

The 2018 Irrigation and Water Management Survey (IWMS) was conducted with producers who indicated in the 2017 Census of Agriculture that they had irrigated sometime during the past five years. It is the successor to the Farm and Ranch Irrigation Survey.

For more information on the IWMS and the Census of Agriculture, go to:

www.nass.usda.gov/AgCensus

Horticulture Operations

Horticulture operations in Wisconsin irrigate both fields in the open and areas under protection. In 2018, these operations irrigated 11,485 acres in the open. They also irrigated 13.7 million square feet under protection. Some types of horticulture crops, such as sod, are grown almost exclusively in the open.

Top Crops Irrigated by Horticulture Operations – Wisconsin: 2018

In the Open (Acres)		Under Protection (mil sq ft)	
Sod	9,233	Floriculture and bedding	7.76
Nursery crops	1,634	Nursery crops	2.92
Propagative materials	12	Food under protection	2.42
Floriculture and bedding	104	Propagative materials	0.91

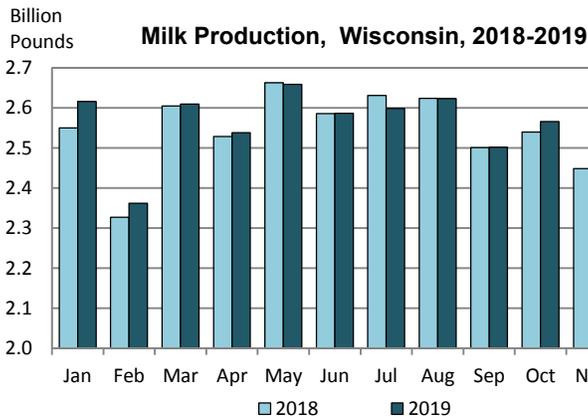
(D) Withheld to avoid disclosing data for individual operations.

Milk Production

Milk production in Wisconsin during October 2019 totaled 2.57 billion pounds, up 1 percent from the previous October. The average number of milk cows during October, at 1.27 million head, was the same as last month but down 6,000 from last year. Monthly production per cow averaged 2,025 pounds, up 30 pounds from last October.

Milk production in the 24 major States during October totaled 17.3 billion pounds, up 1.7 percent from October 2018. September revised production, at 16.8 billion pounds, was up 1.7 percent from September 2018. The September revision represented an increase of 7 million pounds or less than 0.1 percent from last month's preliminary production estimate. Production per cow in the 24 major States averaged 1,964 pounds for October, 33 pounds above October 2018. The number of milk cows on farms in the 24 major States was 8.81 million head, 1,000 head less than October 2018, but 5,000 head more than September 2019.

Milk production in the United States during October totaled 18.1 billion pounds, up 1.3 percent from October 2018. Production per cow in the United States averaged 1,941 pounds for October, 33 pounds above October 2018. The number of milk cows on farms in the United States was 9.33 million head, 40,000 head less than October 2018, but 5,000 head more than September 2019.



Milk Cows and Production, Selected States, October 2018 and 2019

State	Milk cows ¹		Milk per cow ²		Production ²		
	2018	2019	2018	2019	2018	2019	Change from 2018
	<i>(thousand head)</i>		<i>(pounds)</i>		<i>(million pounds)</i>		<i>(percent)</i>
Arizona	205	194	1,910	1,905	392	370	-5.6
California	1,732	1,727	1,915	1,975	3,317	3,411	2.8
Colorado	178	189	2,165	2,160	385	408	6.0
Florida	118	116	1,440	1,485	170	172	1.2
Georgia	81	80	1,670	1,700	135	136	0.7
Idaho	610	630	2,100	2,080	1,281	1,310	2.3
Illinois	86	83	1,675	1,705	144	142	-1.4
Indiana	182	175	1,870	1,885	340	330	-2.9
Iowa	220	217	2,025	2,035	446	442	-0.9
Kansas	160	163	1,925	1,940	308	316	2.6
Michigan	422	428	2,195	2,230	926	954	3.0
Minnesota	451	447	1,810	1,860	816	831	1.8
New Mexico	327	328	2,015	2,055	659	674	2.3
New York	621	626	1,995	2,015	1,239	1,261	1.8
Ohio	256	252	1,750	1,790	448	451	0.7
Oregon	124	124	1,725	1,735	214	215	0.5
Pennsylvania	515	485	1,665	1,705	857	827	-3.5
South Dakota	121	127	1,885	1,885	228	239	4.8
Texas	540	571	1,935	2,000	1,045	1,142	9.3
Utah	100	98	1,935	1,945	194	191	-1.5
Vermont	126	125	1,760	1,785	222	223	0.5
Virginia	80	73	1,595	1,625	128	119	-7.0
Washington	279	281	2,045	2,025	571	569	-0.4
Wisconsin	1,273	1,267	1,995	2,025	2,540	2,566	1.0
24-State Total	8,807	8,806	1,931	1,964	17,005	17,299	1.7

¹Includes dry cows. Excludes heifers not yet fresh. ²Excludes milk sucked by calves.

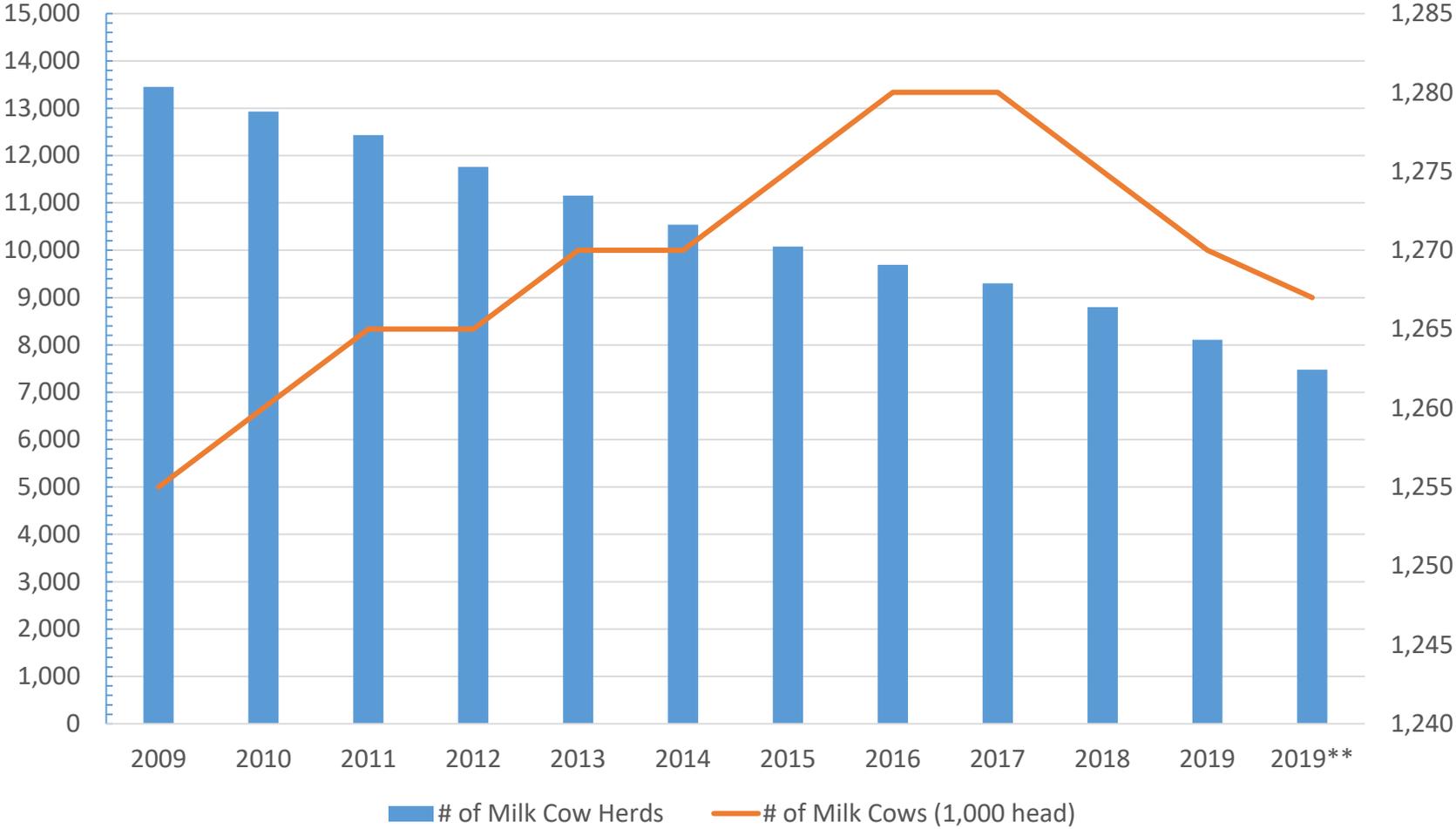


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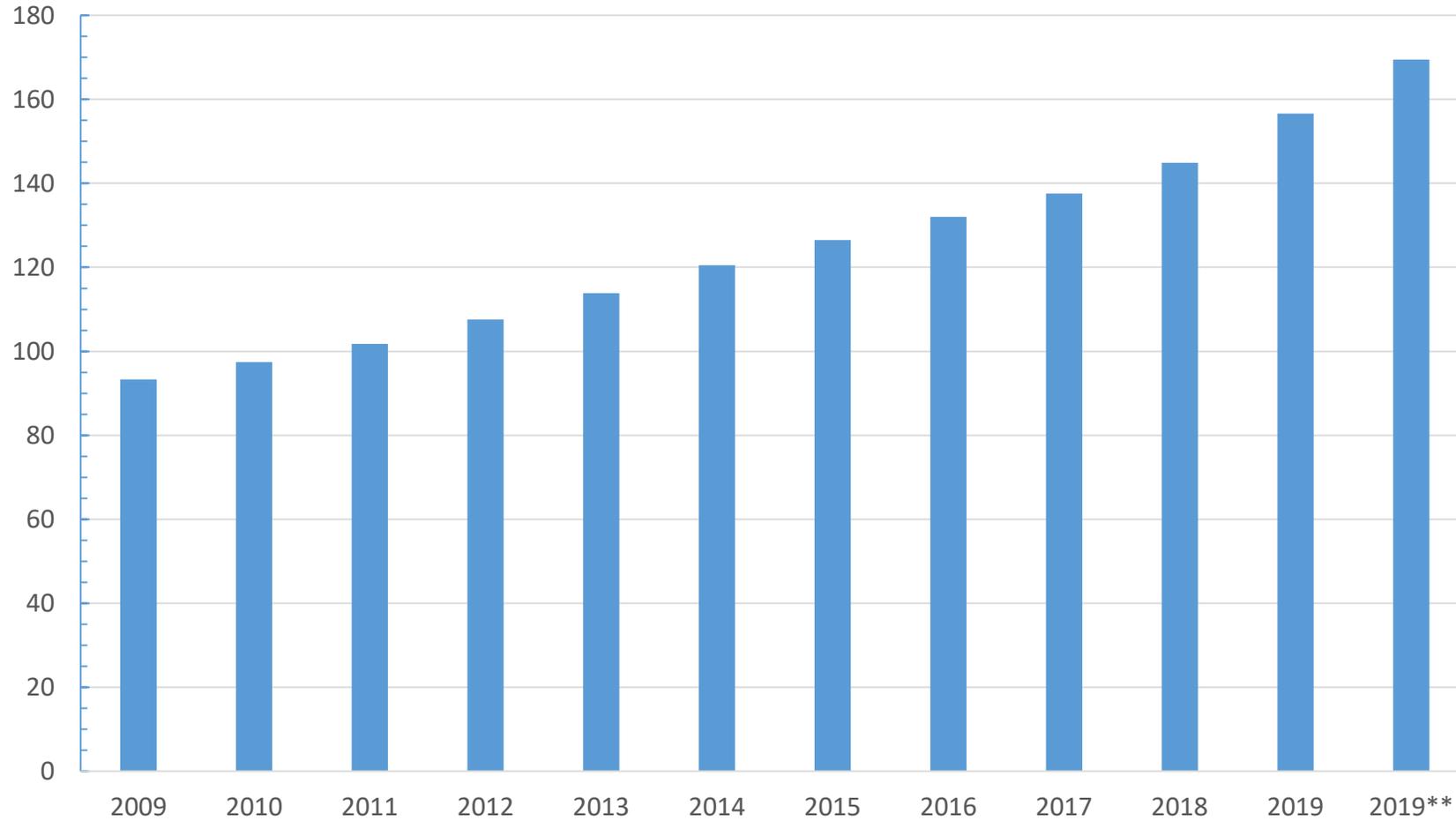
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Wisconsin Dairy Farms vs Milk Cow # (2009 - present)



** October 1, 2019

Wisconsin Average # of Cows per Farm (2009 – present)



** October 1, 2019