

Economic Research Service

Situation and Outlook

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Approved by the World Agricultural Outlook Board.

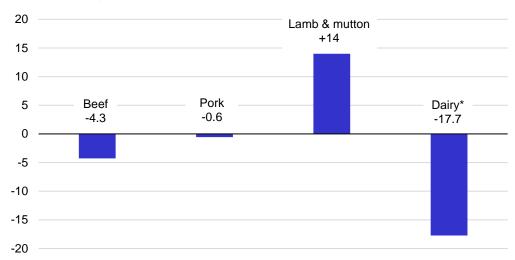
Livestock, Dairy, and Poultry Outlook

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January-July Red Meat and Dairy Imports Mostly Year-Over-Year Lower

U.S imports of red meats and dairy were mostly lower for the January-July period of 2017, compared with the same period in 2016. January-July beef imports were 4.3 percent below a year earlier, due largely to increased domestic production and lower production in Oceania. Pork imports were only slightly below (-0.6 percent) the January-July period last year. For both pork and beef, Canada has been the primary supplier of imported products this year. Lamb/mutton was the only component of the red meat aggregate for which imports have been higher so far this year. The United States imported 14 percent more lamb in the first 7 months of the year, compared with January-July 2016, due to lower domestic production. Most imported lamb products are sourced from Australia. Dairy imports, on a milk-fat milk-equivalent basis, were almost 18 percent below a year earlier. The decline is mainly attributable to lower cheese imports. The European Union was the primary source of January-July dairy imports.

January-July 2017 red meat and dairy imports: percent change from same-period 2016



^{*}Dairy imports on a milk-fat milk equivalent basis. Source: Economic Research Service: U.S Dept. of Agriculture.

Cattle/Beef: Commercial beef production is lowered to 26.6 billion pounds on expected slower marketing pace for fed cattle in the second half of 2017, although cow slaughter is higher. The beef trade forecast remained unchanged, but the forecast for U.S. live cattle imports was adjusted higher based on the year-to-date pace of imports from Mexico and June to July increase of cattle from Canada.

Dairy: With lower expectations for exports and relatively high stock levels of dairy products, all-milk price forecasts have been lowered. For 2017, the all-milk price forecast is \$17.70-\$17.90 per cwt, a decrease from last month's forecast of \$17.80-18.00. The 2018 all-milk price forecast is \$17.55-\$18.55 per cwt, a decrease from last month's forecast of \$18.00-\$19.00.

Pork/Hogs: Expanded slaughter capacity in two Corn-Belt States is expected to reduce pressure on fourth-quarter hog prices. U.S. pork exports slowed in July, due mostly to slower exports to China, whose pork sector is rebounding from recent downsizing.

Sheep/Lamb: Third-quarter lamb and mutton production is forecast at 36 million pounds, unchanged from the previous quarter and from the same period last year. Stocks held in cold storage continue at elevated levels, buoyed by an increasing supply of imported products and relatively weak lamb demand. San Angelo Choice slaughter lamb prices, however, remained fairly stable, hovering in the range of \$146-\$150 per cwt.

Poultry: Forecast broiler production was reduced for the third and fourth quarters this year. Egg prices were increased for the remainder of the year due to recent price strength. Forecast turkey production was increased for the third quarter, and the 2017 price forecast was reduced.

Special Article: "On Different Trajectories: A Look at Sales of Cow's Milk and Plant-Based Milk Analogs" provides an overview of market data for cow's milk and plant-based milk analogs (beverages that are often marketed alongside cow's milk). Household scanner data from Information Resources, Inc. (IRI) indicate that plant-based milk analogs are more expensive than cow's milk. The data further show that market shares have been rising for almond beverages, falling for soy beverages, and rising for other types of milk analogs, on average.

U.S. Beef Production Revised Slightly Lower on Cattle Marketings

Drought conditions in the Northern Plains and hurricanes Harvey and Irma have likely affected regional U.S. cattle production. While much of the effects from the drought in the Northern Plains has likely already played out, it is too early to estimate the impacts of the two hurricanes.

The forecast for 2017 commercial beef production was lowered by 140 million pounds to 26.6 billion pounds, on slower expected marketing pace for fed cattle through the remainder of the year, despite heavier cattle dressed weights and higher cow slaughter. For 2018, the commercial beef production forecast is lowered from the previous month as a slower rate of placements during the second-half of 2017 is likely to result in reduced steer and heifer slaughter in the first half of 2018.

Forage Opportunities Could Expand for Backgrounding Feeder Cattle

Favorable weather in the Southern Plains has improved pasture conditions on par with this time last year. Although improved forage conditions in the Southern Plains may increase incentives to background calves, placements in feedlots during the fourth quarter are expected to remain relatively large given the availability of cattle outside feedlots. However, expected declines in cattle feeding margins will likely encourage feedlots to bid down the price of calves in the coming months.

Prices reported by AMS (KO_LS 795) for medium frame feeder steers weighing 750-800 pounds in August declined about \$7 per hundredweight (cwt) from July. Prices in early September moved higher, as improvements in forage conditions have likely provided cow/calf producers and backgrounders with the ability to hold-off selling at less favorable prices. The price forecast for feeder steers in the fourth quarter is in the range of \$140.00-\$146.00/cwt, turning lower in the first quarter of 2018 to \$132.00-\$140.00/cwt.

Fed Steer Prices Steady After Large Summer Drops

Fed steer prices have seen little support over the past month as the price reported for the week ending September 10 for 5-Area fed steers (LM_CT 150) was \$104.92/cwt, down sharply from this year's high of \$144.60/cwt during the first week of May. According to the August NASS *Cattle on Feed* report, the number of cattle on feed¹ on August 1 was up 4 percent year over year. Also, the number of cattle on feed² over 120 days on August 1 was up 8.6 percent from July. This likely implies that feedlots will have sufficient cattle to sell going into the fourth quarter, which could depress fed cattle prices. Fed steer prices may possibly be pressured in the short-term as ample supplies of cattle are available to be marketed in the fourth quarter. In addition, an abundant supply of competing meats are also available. The price forecast for the 5-area fed steers in the fourth quarter is \$107.00-\$113.00/cwt. Fed steer prices are forecast to make a seasonal rebound in the first quarter of 2018 to \$110.00-\$120.00/cwt.

Wholesale Prices Present Buying Opportunity for Retailers

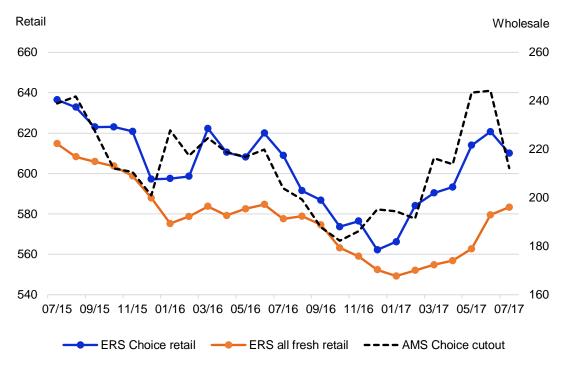
The ERS-calculated retail price for Choice beef dropped from June (\$620.70/cwt) to July (\$610.00/cwt), relatively unchanged from 2016 price levels for the same period. At the same time, AMS reported (LM_XB 459) the Choice beef cutout value (negotiated sales) averaged \$192.35/cwt, for the week ending September 8. That cutout value was down sharply (\$59.21) from this year's high of \$250.86/cwt, and \$2.86 lower than the same week

¹ In feedlots with 1,000-head or greater capacity.

² In feedlots with 1,000-head or greater capacity.

last year. Moreover, the Choice/Select spread tumbled from historic levels of above \$30.00 to about \$2.00 on lower demand for the most expensive cuts (i.e., the middle meats). However, the drop in wholesale Choice beef prices may have spurred boxed beef sales; since mid-August, beef loads have sold for delivery in 0-21 days and 22-60 days out.

ERS monthly wholesale and retail beef prices (\$/cwt)



Source: Economic Research Service, U.S. Dept. of Agriculture

Beef Exports Increase Steadily in July

Year-over-year July U.S. beef exports increased by 10 percent to 239 million pounds. The 22 million-pound increase was contributed mostly by Japan (+13.5 million pounds), Hong Kong (+5.4 million pounds), and Canada (+1.4 million pounds). Japan was the highest U.S. export destination, receiving 31 percent of total shipments in July 2017. The Foreign Agricultural Service weekly Exports Sales Report shows year-over-year larger U.S. exports to Japan in August, despite the August 1 implementation of the Japanese safeguard that raises the tariff on U.S. frozen beef. Increased tariffs were likely partially offset by lower U.S. domestic prices and the relative weakening of the U.S. dollar against the Japanese Yen.

Beef Imports Up in July 2017

U.S. beef imports increased in July 2017 by 11 percent (+ 31 million pounds) from the same month a year ago to 301 million pounds. This is the second consecutive month of year-over-year increases in imports in 2017. Mexico (+ 57 percent) and Canada (+18 percent) together shipped 30 million pounds more beef into the United States in July 2017 than in July 2016. U.S. beef imports from Brazil declined by 31 percent (-5 million pounds) compared to July 2016 and 32 percent less than June 2017. This decline stems mostly from the June 22 U.S. ban imposed on imports of fresh/chilled Brazilian beef https://www.usda.gov/media/press-releases/2017/06/22/perdue-usda-halting-import-fresh-brazilian-beef. However, increased imports from Nicaragua and Uruguay together (+5 million pounds) were about equal to the decline in imports from Brazil.

July 2017 U.S. Cattle Imports Up from a Year Ago

U.S. cattle imports in July 2017 were 118 thousand head, an increase of 36 thousand head (+44 percent) from year-earlier levels, largely due to a 30 thousand head increase from Mexico. July 2017 saw the first year-over-year increase in live cattle imports from Canada for 2017. On a year-to-date basis, the sharp decline in imports from Canada (-87 thousand head) was more than offset by increased imports from Mexico (+131 thousand head). Mexico likely took advantage of higher feeder cattle prices in the United States by increasing shipments during late-spring and summer.

Of the 2017 cattle imports from Canada, the proportion of slaughter animals relative to feeder cattle increased compared with year-earlier levels (AMS weekly report, WA_LS 637). However, this may change as *Agriculture and Agri-Food Canada* has reported poor pasture conditions and tighter supplies of feed in Canada due to drought conditions that may contribute to increased shipments of Canadian feeder cattle to the United States. The AMS weekly trade report since Mid-August has shown a slight uptick on feeder cattle from Canada. Based on the year-to-date pace of import growth from Mexico and anticipation of the potential impact of the Canadian drought, U.S. cattle import forecasts for 2017 and 2018 have been revised upwards from the previous month to 1.715 million head and 1.740 million head, respectively,. Live export forecasts were left unchanged.

Cattle, head -2016 **→**-2017 **→**-5yr avg. 250000 230000 210000 190000 170000 150000 130000 110000 90000 70000 50000 Jan Feb Mar May Jun Jul Aug Sep Oct Nov Dec

July 2017 U.S. cattle imports at 5-year average level

Source: Economic Research Service, U.S. Department of Agriculture.

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Recent Developments in Dairy Markets

From the week ending August 5 to the week ending September 9, directions of wholesale price changes reported in the USDA *National Dairy Products Sales Report* (NDPSR) were mixed. The greatest change was an increase of 12.9 cents per pound for 500-pound barrels of cheddar cheese (adjusted to 38-percent moisture). The greatest loss was a 6-cent decrease in the price of a butter.

Dairy product prices (dollars per pound)

	For the week e		
	Aug. 5	Sep. 9	Change
Butter	2.6459	2.5853	-0.0606
Cheddar cheese			
40-pound blocks	1.6822	1.6674	-0.0148
500-pound barrels ¹	1.5113	1.6407	0.1294
Nonfat dry milk	0.8622	0.8735	0.0113
Dry whey	0.4317	0.4243	-0.0074

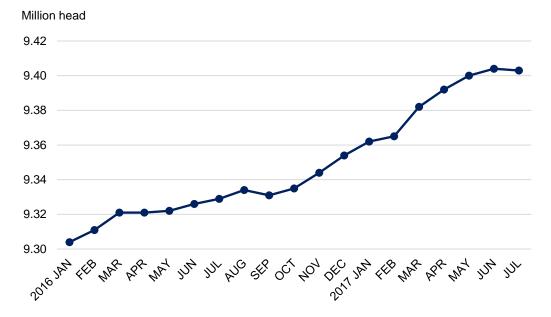
¹Adjusted to 38-percent moisture.

Source: U.S. Dept. of Agriculture, Agricultural Marketing Service, *National Dairy Product Sales Report*.

Recent weekly wholesale prices for butter and cheese traded on the Chicago Mercantile Exchange (CME) have been lower than recent NDPSR prices. For the trading week ending September 8, the CME butter price was \$2.4575 per pound. CME butter prices are highly correlated with prices reported for the following week in the NDPSR. CME cheddar cheese prices for the trading week ending September 8 were \$1.6300 and \$1.5569 per pound for 40-pound blocks and 500-pound barrels, respectively. CME cheese prices are highly correlated with prices reported for the following 2 weeks in the NDPSR.

July milk production as reported by the USDA National Agricultural Statistics Service (NASS) totaled 18.238 million pounds, up 1.8 percent from July 2016. Milk per cow averaged 1,940 pounds per head, 20 pounds more than July 2016. Milk cows in July numbered 9.403 million head, 74 thousand more than July 2016 but 1 thousand less than June 2017. NASS estimates indicate that July was the first month since September 2016 that milk cows declined from the previous month.

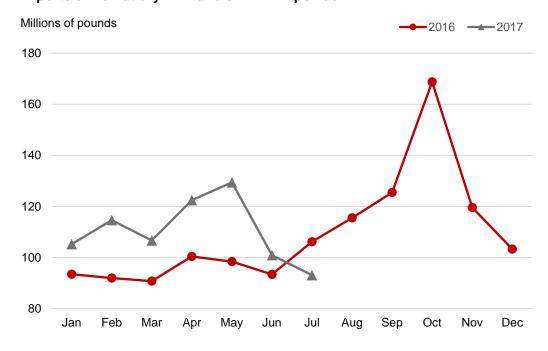
Number of milk cows



Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service.

Exports of dairy products declined from June to July. On a milk-fat basis, July exports were 744 million pounds, 124 million less than June but 68 million pounds more than July 2016. On a skim-solids basis, July exports were 3.121 billion pounds, 148 million pounds less than June and 114 million less than July 2016. Only 93.1 million pounds of nonfat dry milk (NDM) and skim milk powder (SMP) were exported in July, down from 100.9 million pounds in June and 106.2 million pounds in July 2016. Cheese exports were 60.1 million pounds in July, down 7.3 million pounds from June but up 7.2 million pounds from July 2016. Butter exports in July fell by more than half from June to 3.1 million pounds, due to a drop in exports to Canada, which surged in the previous month.

Exports of nonfat dry milk and skim milk powder



Source: U.S. Dept. of Agriculture, Foreign Agricultural Service; U.S. Dept. of Commerce, Census Bureau.

Imports increased from June to July. On a milk-fat basis, July imports were 514 million pounds, 51 million more than June but 11 million less than July 2016. On a skim-solids basis, July imports were 540 million pounds, 9 million more than June and 32 million more than July 2016. Imports of butter increased from 4.8 million pounds in June to 5.9 million pounds in July. Most of the imported butter has come from Ireland, with imports of 3.4 million pounds in June and 4.5 million in July. The gain in imports is remarkable since European butter prices reported by USDA Agricultural Marketing Service (AMS) have been very high, \$3.27 per pound at the midpoint of the range in July and \$3.55 in August. However, data from the Global Trade Atlas (GTA) indicate that the average unit value of U.S. butter imports from Ireland was much less, \$2.52 per pound in July. Much of the imported butter may have been contracted earlier in the year when prices were lower. Other products with notable increases in imports were milk protein concentrate and dry whole milk.

July ending stocks for major dairy products were relatively high. Stock levels for cheese, NDM, and whey products were substantially higher than July 2016. Although ending butter stocks were below July 2016, they remained relatively high, 21 percent higher than July 2015.

Ending stocks for major dairy products (million pounds)

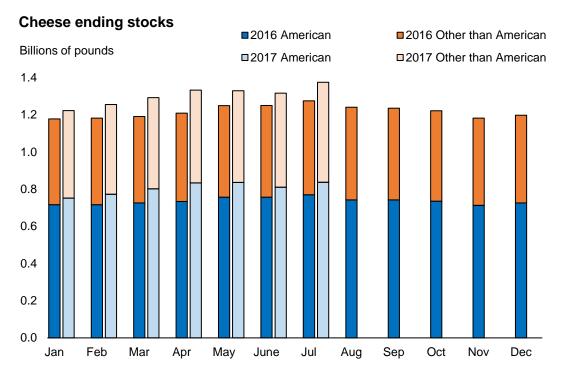
Product	July 2016	July 2017	Percent change
Cold storage stocks in public and private warehouses			
Butter	333	308	-7.5
American cheese	770	838	8.8
Other-than-American- cheese	506	538	6.3
Manufacturers' stocks			
Nonfat dry milk	257	299	16.3
Dry whey for human use	69	95	37.7
WPC for human use	61	70	14.8

WPC = whey protein concentrate.

Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service.

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¹ International prices are reported by AMS and by GTA in U.S. dollars per metric ton. The prices are converted to dollars per pound for this article.



Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service.

Outlook for Dairy Feed Prices

For the 2016/17 marketing year, prices for corn and soybean meal are estimated to be \$3.35 per bushel and \$320 per short ton, respectively. The 2017/18 price forecast for corn is \$2.80-\$3.60 per bushel, unchanged at the midpoint from last month's forecast. The 2017/18 soybean meal forecast is \$290-\$330 per short ton, \$5 lower than last month's forecast. The alfalfa hay price in July was \$152 per short ton, \$2 lower than June but \$14 higher than July 2016. For more information, see the USDA Economic Research Service publication *Feed Outlook*, at

http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1273.

Dairy Forecasts for 2017

With the July month-over-month decline in milk cows, expectations of growth in the dairy herd have been dampened, and the 2017 forecast for milk cows has been lowered to 9.395 million, 5 thousand less than last month's forecast. However, with relatively strong growth in yield per cow in July, the milk per cow forecast for the year has been raised to 22,980 pounds. These changes result in a milk production forecast of 216.0 billion pounds for 2017, 0.3 billion pounds higher than previously forecast.

Due to lower expectations for cheese exports, the forecast for exports on a milk-fat basis has been lowered to 9.2 billion pounds for the year. Recent strength in imports of butter and several other products motivated a slight increase in the import forecast on a milk-fat basis, to 6.1 billion pounds for 2017. With the high ending stocks for cheese in July, 2017 ending stocks on a milk-fat basis have been raised to 12.8 billion pounds, an increase of 0.7 billion pounds from the last forecast. Domestic use on a milk-fat basis in 2017 is now forecast at 211.8 billion pounds, a decrease of 0.1 billion pounds from last month.

Forecasts for exports and imports on a skim-solids milk-equivalent basis follow a pattern similar to those on a milk-fat basis. The export forecast for 2017 on a skim-solids basis has been lowered 0.1 billion pounds to 40.6 billion pounds, based on flagging exports of NDM/SMP and cheese. Imports on a skim-solids basis are forecast slightly higher for the

year at 6.4 billion pounds, due to higher expected imports of milk protein concentrate and whole milk powder. Domestic use is forecast at 180.1 billion pounds for the year, 0.2 billion pounds higher than the previous forecast. With high ending stocks of cheese, NDM, and whey in July, ending stocks on a skim-solids basis are now forecast at 10.2 billion pounds for the year, 0.3 billion pounds higher than last month's estimate.

Most dairy product price forecasts have been lowered for the year, with the exception of cheddar cheese; its price forecast has been raised to \$1.610-\$1.630 per pound, based on recent strength. The dry whey price is forecast slightly lower at \$0.445-\$0.465, based on higher stocks and recent price movements. Butter prices have fallen in recent weeks as export growth has failed to materialize; therefore, the butter price forecast for the year has been lowered to \$2.355-\$2.395 per pound. With high stocks and lower expectations for exports, the NDM price forecast has been slightly lowered as well, to \$0.880-\$0.900 for the year.

The Class III milk price forecast for the year is \$16.05-\$16.25 per cwt, as higher expected cheese prices more than offset lower expected dry whey prices. Since the butter and NDM price forecasts have been lowered, the Class IV milk price forecast for the year is lower than last month, at \$15.40-\$15.70. The all-milk price for the year is forecast at \$17.70-\$17.90 per cwt, a reduction from \$17.80-\$18.00 forecast last month.

Dairy Forecasts for 2018

The size of the milking herd in 2018 is now forecast at 9.450 billion head, as a slight reduction in the expected growth rate for 2017 is carried over into 2018. The milk per cow forecast is unchanged at 23,295 pounds; this figure would represent growth of 1.4 percent from 2017. Due to the reduction in the milk cow forecast, overall milk production for the year is now forecast at 220.1 billion pounds, 0.2 billion pounds lower than last month's forecast. Milk production is now expected to grow 1.9 percent in 2018.

The export forecast on a milk-fat basis is unchanged at 9.2 billion pounds, as higher expectations for exports of butterfat products are balanced out by lower forecasts for cheese exports. Imports on a milk-fat basis for 2018 are forecast slightly lower this month at 5.7 billion pounds due to lower expectations for cheese imports. Domestic use for 2018 is projected to be slightly higher than last month's forecast, at 216.3 billion pounds. The ending stock forecast has been raised to 12.1 billion pounds, as higher stock levels should persist through 2018.

With European SMP stocks and production showing no signs of abating, the export forecast on a skim-solids basis has been lowered to 41.8 billion pounds for the year. The import forecast on a skim-solids basis has been lowered 0.2 billion pounds to 6.2 billion for 2018, as milk protein and cheese imports are expected to be lower. As domestic use of whey products and NDM continues to lag year-ago levels, the domestic use forecast on a skim-solids basis for 2018 has been lowered to 184.3 billion pounds. As with stocks on a milk-fat basis, higher stocks on a skim-solids basis are expected to persist into next year; as a result, the ending stock forecast has been raised 0.4 billion pounds to 9.4 billion.

The cheddar cheese price forecast for 2018 has been lowered slightly, but is still expected to tick upward to \$1.630-\$1.730 per pound for the year. The dry whey price is also forecast lower this month, at \$0.410-\$0.440 for the year. Butter prices are still expected to follow a downward trend from 2017 levels, which are now forecast lower than last month's projections, due to more milk diverting away from cheese and toward butter production. The butter price forecast for 2018 has been lowered as a result, to \$2.330-\$2.460 per pound. Recent weakness in exports and plentiful overseas supplies have reduced the likelihood of an NDM price recovery in 2018; the NDM price forecast has been lowered to \$0.860-\$0.930 per pound.

Lower product prices across the board have resulted in lower Class III and Class IV price forecasts, at \$16.00-\$17.00 and \$15.10-\$16.20 per cwt, respectively, for the year. The all-milk price for 2018 is now forecast at \$17.55-\$18.55 per cwt, a reduction from \$18.00-\$19.00 forecast last month.

Enrollment Period for the Margin Protection Program for Dairy Producers

On August 31, USDA announced that dairy producers can enroll for 2018 coverage in the Margin Protection Program for Dairy Producers (MPP-Dairy). The program offers dairy producers the flexibility to select coverage levels best suited to their operations. The enrollment period ends on December 15, 2017. This year, Secretary of Agriculture Sonny Perdue has used his authority to allow producers who have previously participated in MPP-Dairy to opt out of the program for 2018 by not signing up during the registration period. For more information, see the news release (Release No. 0101.17) at https://www.fsa.usda.gov/news-room/news-releases/2017/nr 20170831 rel 0101.

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Pork/Hogs

New Midwest Slaughter Capacity Expected To Ease Flow of Hogs Through Seasonal High Period

Commercial pork production for the third and fourth quarters are each expected to be record-high in 2017. Third-quarter production is forecast at 6.3 billion pounds, 2.8 percent above a year earlier, and fourth-quarter production is expected to be 7 billion pounds, 5.7 percent above the fourth quarter of 2016. Two large new slaughter plants that each opened on September 5, 2017, will reduce the probability that large anticipated hog numbers will exceed U.S. slaughter capacity and significantly pressure U.S. hog prices.

The Clemens Food Group plant located in Coldwater Michigan has a single-shift capacity of about 10,000 head per day. The Triumph-Seaboard Foods plant located in Sioux City, lowa has a single-shift capacity of about 12,000 head per day. While it is unlikely that either plant will reach full single-shift capacity immediately, increasing slaughter rates are likely to be adequate to alleviate the significant effect on hog prices that anticipated large fourth-quarter weekly hog slaughters might otherwise bring.

Prices for live equivalent 51-52 percent lean hogs are expected to average \$57-\$58 in the third quarter, about 17 percent higher than a year ago. Fourth-quarter prices are expected to be \$44-\$46, almost 22 percent above a year ago. Strong hog price expectations signal continued solid domestic and foreign pork demand. The wholesale belly price—a reflection of much of the domestic demand strength in 2017—was 44 percent below their late-July peak in the first week of September, but were still 42 percent above the same week in 2016.

USDA will release the *Quarterly Hogs and Pigs* report on September 28, providing an indication of producer farrowing intentions into early 2018.

August Pork Exports Drift Lower

U.S. pork exports in August were 390 million pounds, a volume almost 4 percent lower than a year ago. The decline is primarily attributable to lower shipments to China/Hong Kong (-53 percent). Export volumes to the 10 largest foreign markets in August are summarized below, along with country shares of U.S. exports.

	Country	Exports	Exports	Percent	Export share	Export share
		July 2016	July 2017	change	July 2016	July 2017
		(mil. lbs)	(mil. lbs)	(2017/2016)	%	%
	World	406	390	-3.8		
1	Mexico	117	129	10.4	28.7	33.0
2	Japan	99	88	-11.0	24.3	22.5
3	South Korea	44	45	1.4	10.9	11.5
4	Canada	21	25	18.6	5.2	6.4
5	China/Hong Kong	61	28	-53.3	15.0	7.3
6	Australia	17	17	-3.5	4.2	4.2
7	Colombia	8	11	45.7	1.9	2.9
8	Dominican Republic	4	8	128.4	0.9	2.1
9	Philippines	4	7	59.1	1.1	1.8
10	Chile	6	6	6.0	1.5	1.6

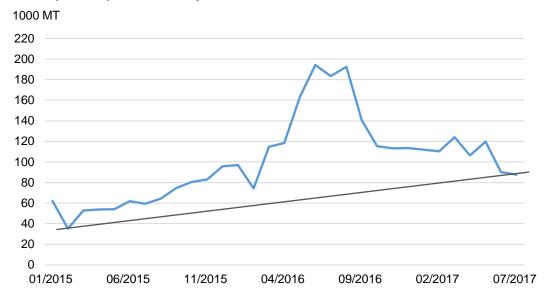
Source: Economic Research Service, U.S. Dept. of Agriculture.

Pork Imports Slow in China as Domestic Pork Production Rebounds

China pork import data for July shows a 52-percent decline from a year earlier; a dramatic decline, but China continues to import pork at a historically high level. It is notable from the figure below that imports bounce and then fall, but ratchet upward in each cycle. The apparent long-term trend is upward.

China imported less pork from all major pork exporting countries/regions in July: the United States (-38 percent, year-over-year), Canada (-51.6 percent, year-over-year), the E.U. (-56.3 percent, year-over-year), and Brazil (-60.6 percent, year-over year).

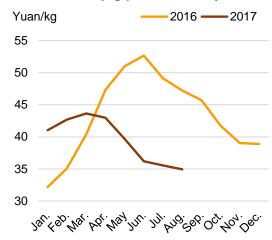
China pork imports, monthly



Source: Global Trade Atlas.

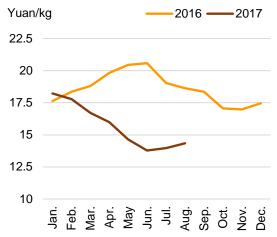
Lower Chinese pork imports follow from an ongoing recovery in the Chinese pork sector, which has effectively been underway since the summer of 2016. Since then a dozen or more feed and livestock companies have announced aggressive expansion plans. Currently, domestic feeder pig markets suggest that animal supplies are more than adequate as prices continued to decline in August. On the other hand, live hog prices tightened in August, as did pork prices.

China feeder pig price, monthly



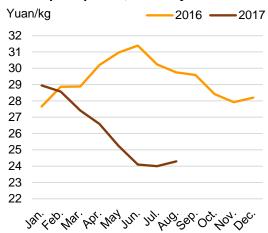
Source: Agriculture Ministry of China.

China live hog price, monthly



Source: Agriculture Ministry of China.

China pork prices, monthly



Source: Agriculture Ministry of China.

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Sheep / Lamb

Third Quarter Lamb and Mutton Production Steady

Third-quarter lamb and mutton production is forecast at 36 million pounds, unchanged from the previous quarter and from the same period last year. July commercial production came in at 11 million pounds, and August and September production forecasts are 11.7 and 12.8 million pounds, respectively. Production levels are, however, well below the 5-year average, largely due to a decline in sheep numbers and the availability of fewer market lambs.

While stable production is normally a signal of stable lamb consumption during the summer months, a large proportion of lamb and mutton is still held in cold storage. Nearly 27 million pounds of lamb and mutton were held in cold storage at the beginning of August, up nearly 1 million pounds from the beginning of July. However, a large share of this lamb and mutton may be imported products.

Slaughter Lamb Prices Soften Into Third Quarter

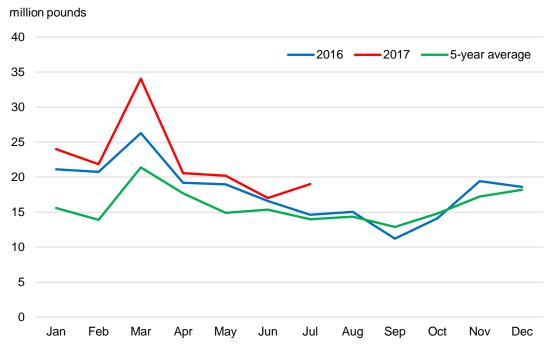
Third-quarter 2017 slaughter lamb prices at San Angelo, TX, are forecast to show a slight decrease from previous-quarter levels. Choice slaughter lamb prices are forecast to hover in the range of \$146-\$150 per cwt, decreasing slightly from the second-quarter 2017 price of \$153.06 per cwt. July Choice slaughter lamb prices were \$146.00 per cwt, and August prices improved slightly to \$147.00 per cwt. In general, lamb prices have stabilized in recent months, largely due to the tight supplies of market lambs.

Imports at Record Levels

Imports continue at record levels in 2017, remaining well above 5-year-average levels. Second-quarter 2017 lamb and mutton imports were 80 million pounds, up 60 percent from the same period last year. Imports for July also rose 30 percent over July 2016 to 19 million pounds. Third-quarter imports are forecast at 56 million pounds, about 37 percent above third-quarter levels in 2016. Tight U.S. lamb supplies and favorable exchange rates are likely drivers of the strength in imports. Although the U.S. currency has weakened somewhat in recent months, it still remains relatively strong against its main suppliers, Australia and New Zealand.

Second-quarter 2017 exports were 1.2 million pounds, 14 percent above the same period in 2016. Exports in July were 467,940 pounds, about 15 percent below export levels in July 2016.

Lamb and mutton imports well above 5-year average



Source: U.S. Department of Commerce, Bureau of Census, compiled by Economic Research Service, USDA.

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Poultry

Broilers

July broiler meat production was 3.3 billion pounds, approximately 3 percent above last year. Preliminary estimates of August production suggested only marginal growth compared to last year, contributing to a downward revision of third-quarter production to 10.35 billion pounds. Fourth-quarter production was revised downwards to 10.30 billion pounds.

Broiler exports in July were 563 million pounds, down just slightly from last year. Vietnam experienced the largest decline from last year, down 13 million pounds. Notable declines of exports occurred in the Democratic Republic of the Congo, Taiwan, and Mexico. Year-to-date exports to Mexico were 82 million pounds lower through July, a 9-percent decline. However these declines were partly offset by increased exports to Georgia, Angola, and Turkey. Shipments to the Republic of Georgia increased sharply in July, totaling 38 million pounds.

Weekly prices for whole broilers (national composite) declined in August following typical seasonal patterns; the price was 90 cents per pound for the week ending September 8. The third-quarter forecast was revised very slightly to 95-96 cents per pound. Forecasts for future guarters and 2018 were left unchanged.

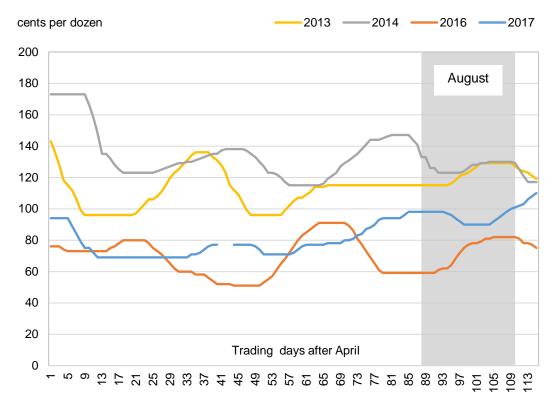
Eggs and Egg Products

Table egg production totaled 645 million dozen in July, approximately 3 percent above last year, with more layers and increased eggs per hen contributing to the increase. Production of all eggs was changed very marginally to 8,764 million dozen for 2017, reflecting a revision to second-quarter hatching egg production; forecasts for the second half of 2017 and 2018 were unchanged.

Egg and egg product exports in June were 24 million dozen (shell-egg equivalent), up 17 percent from last year. Much of the export increase over last year was accounted for by more shipments to Japan, Hong Kong, Mexico, and South Korea, with respective increases of 2.2, 1.0, 0.9, and 0.7 million dozen respectively over last year. Export growth was weighed down by lower exports to Jamaica and the United Kingdom, with 1.0 and 0.8 million dozen fewer than last year, respectively. The export forecasts for 2017 and 2018 were not revised.

Recent egg prices (large grade A eggs, New York) have been stronger than expected, reaching 110 cents per dozen on September 8. The third-quarter price forecast was increased to 93-94 cents per dozen, and the fourth-quarter forecast was raised to 101-107 cents per dozen. While prices earlier this year were in the range of 2016 prices, recent prices have approached the levels seen in 2013 and 2014 (chart below). Last year's lower prices were associated with robust supply levels; with supply trends at similar levels this year, higher prices may indicate stronger demand.

New York wholesale egg prices, from April to early September, 2013-2017*



Note: Prices from 2015 are not presented due to large market changes from avian influenza. Source: U.S. Dept. of Agriculture, Agricultural Marketing Service.

Turkey

Turkey production in July totaled 468 million pounds, 2 percent below last year. Preliminary estimates of August slaughter were higher than expected, contributing to an increase in the third-quarter forecast to 1,465 million pounds. Future production forecasts were not changed.

July turkey exports increased by 10 percent relative to a year earlier, totaling 52 million pounds. Shipments to Mexico, which typically account for the majority of U.S. turkey exports, increased 2.4 million pounds, while Chile, a much less important market, experienced a similar increase. Benin and South Africa were respectively shipped 1.5 and 1.3 million more pounds of U.S. turkey. Exports decreased most notably for Hong Kong, down 1.4 million pounds, while exports to Japan were about 0.7 million pounds lower. Export forecasts for 2017 and 2018 were left unchanged.

Wholesale hen prices (frozen) in August continued well below a year earlier. The last week in August prices did go above a dollar a pound, reaching nearly \$1.02 per pound before declining the following week. Sustained upward momentum has not materialized according to seasonal expectations as Thanksgiving approaches. The fourth-quarter forecast was decreased to \$1.00-1.06 per pound, with no other forecasts changed.

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Dairy Data, https://www.ers.usda.gov/data-products/dairy-data/, includes data from multiple sources concerning supply, demand, and prices for the dairy industry.

Related Websites

Livestock, Dairy, and Poultry Outlook,

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	oultry forecasts
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• •	2011					2045					2046					***					2040		-
	2014					2015					2016					2017					2018		
	I	II	III	IV	Annual	I	II	III	IV	Annual	I	II	III	IV	Annual	I	II	III	IV	Annual	I	II	Annual
Production, million lb																							
Beef	5,866	6,184	6,179	6,021	24,250	5,665	5,856	6,068	6,109	23,698	5,938	6,187	6,472	6,625	25,221	6,300	6,404	6,730	7,125	26,559	6,340	6,835	27,275
Pork	5,784	5,504	5,424	6,131	22,843	6,162	5,925	5,958	6,457	24,501	6,230	5,963	6,100	6,648	24,941	6,409	6,137	6,270	7,025	25,841	6,515	6,380	26,715
Lamb and mutton	37	43	38	38	156	38	39	37	37	150	38	39	36	37	150	37	36	36	38	147	35	37	145
Broilers	9,299	9,618	9,835	9,814	38,565	9,718	10,021	10,372	9,937	40,048	10,039	10,253	10,338	10,065	40,695	10,233	10,407	10,350	10,300	41,290	10,400	10,625	42,275
Turkeys	1,332	1,428	1,478	1,517	5,756	1,429	1,389	1,352	1,458	5,627	1,435	1,520	1,515	1,511	5,981	1,487	1,481	1,465	1,565	5,998	1,510	1,540	6,180
Total red meat & poultry	22,469	22,934	23,111	23,671	92,185	23,157	23,382	23,940	24,150	94,630	23,834	24,118	24,623	25,037	97,612	24,612	24,618	25,006	26,213	100,449	24,952	25,576	103,213
Table eggs, mil. doz.	1,794	1,823	1,852	1,896	7,366	1,820	1,726	1,664	1,728	6,938	1,793	1,827	1,876	1,939	7,435	1,902	1,896	1,910	1,950	7,658	1,925	1,900	7,765
Per capita disappearance, retail lb 1/																							
Beef	13.1	14.0	13.7	13.4	54.2	13.1	13.6	13.9	13.3	54.0	13.6	13.9	14.1	14.0	55.6	14.0	14.2	14.4	15.0	57.6	13.7	14.8	58.5
Pork	11.2	10.8	11.0	12.8	45.8	12.2	11.8	12.1	13.6	49.8	12.6	11.9	12.1	13.5	50.1	12.4	11.8	12.3	13.8	50.3	12.4	12.4	51
Lamb and mutton	0.2	0.2	0.2	0.3	0.9	0.2	0.3	0.2	0.3	1.0	0.3	0.3	0.2	0.3	1.0	0.3	0.3	0.3	0.3	1.1	0.3	0.3	1.0
Broilers	20.3	20.8	21.2	21.1	83.4	21.4	22.1	23.3	22.1	89.0	22.5	22.7	22.7	21.8	89.8	22.4	22.9	22.5	22.4	90.2	22.7	23.0	91.5
Turkeys	3.4	3.5	3.9	5.0	15.8	3.5	3.6	3.9	4.9	16.0	3.6	3.9	4.2	4.9	16.6	3.7	3.7	4.0	5.1	16.6	3.9	3.8	17.0
Total red meat & poultry	48.6	49.8	50.4	53.0	201.8	50.9	51.8	53.8	54.6	211.1	52.9	53.0	53.7	54.9	214.6	53.2	53.2	53.8	56.9	217.2	53.3	54.7	220.5
Eggs, number	65.6	66.2	67.2	68.5	267.5	65.7	62.9	61.9	65.7	256.3	67.5	67.4	68.8	71.0	274.7	68.5	68.2	68.9	70.1	275.7	69.0	67.8	277.5
Market prices																							
Choice steers, 5-area Direct, \$/cwt	146.34	147.82	158.49	165.60	154.56	162.43	158.11	144.22	127.71	148.12	134.81	127.68	113.26	107.69	120.86	122.96	132.76	110-113	107-113	118-120	110-120	109-119	111-120
Feeder steers, Ok City, \$/cwt	168.49	188.64	220.90	234.25	203.07	210.31	219.65	208.11	173.59	202.92	155.83	146.49	140.66	128.30	142.82	129.56	147.75	143-146	140-146	140-142	131-141	134-144	134-144
Cutter Cows, National L.E., \$/cwt	89.12	98.57	111.27	109.21	102.04	107.61	109.50	103.34	77.80	99.56	73.50	75.87	73.16	57.75	70.07	62.63	69.65	69-72	65-71	67-69	62-72	60-70	61-71
Choice slaughter lambs, San Angelo, \$/cwt	166.69	148.99	156.02	162.69	158.60	147.17	140.09	146.23	142.52	144.00	133.33	136.15	137.52	131.88	134.72	138.91	153.46	147-150	147-153	147-149			140-150
Nat'l base cost, 51-52 % lean, live equivalent, \$/cwt	68.69	85.40	83.30	66.74	76.03	48.47	53.20	54.59	44.66	50.23	44.63	53.71	49.26	37.02	46.16	49.73	51.70	57-58	44-46	50-51	48-52	50-54	46-50
Broilers, national composite, cents/lb	98.40	113.70	104.60	102.80	104.90	97.00	104.20	83.70	77.20	90.50	84.60	93.00	81.7	78.00	84.30	88.50	104.70	95-97	86-90	93-97	86-94	86-94	85-92
Turkeys, national, cents/lb	100.70	105.60	110.20	113.90	107.60	99.60	108.50	126.40	130.10	116.20	114.70	116.50	120.70	116.60	117.10	100.40	99.10	97-98	100-106	99-101	94-102	97-105	100-109
Eggs, New York, cents/doz.	142.70	134.60	129.30	162.70	142.30	146.90	170.30	235.70	174.10	181.80	121.50	67.90	71.60	81.70	85.70	80.00	74.70	93-94	101-107	87-89	84-90	79-85	87-94
U.S. trade, million lb, carcass wt. equivalent																							
Beef & veal exports	583	667	680	644	2,574	523	607	542	595	2,267	535	621	661	738	2,556	651	683	730	720	2,784		720	2,860
Beef & veal imports	597	767	765	818	2,947	878	990	890	613	3,371	793	831	751	639	3,015	699	813	710	610	2,832		785	2,870
Lamb and mutton imports	46	49	45	55	195	53	56	46	59	214	68	55	41	52	216	80	58	56	56	250		57	242
Pork exports	1,399	1,342	1,146	1,205	5,092	1,224	1,339	1,173	1,274	5,010	1,229	1,318	1,235	1,457	5,239	1,432	1,426	1,345	1,550	5,753	,	1,425	5,965
Pork imports	213	241	257	301	1,011	279	266	270	300	1,116	293	257	266	275	1,091	264	281	275	275	1,095		220	935
Broiler exports	1,827	1,833	1,858	1,779	7,297	1,624	1,713	1,487	1,496	6,321	1,585	1,605	1,734	1,720	6,644	1,711	1,618	1,740	1,745	6,814	,	1,750	7,030
Turkey exports	159	182	215	219	775	148	123	125	132	529	116	141	160	153	569	133	148	160	170	611		155	650
Live swine imports (thousand head)	1,195	1,216	1,264	1,272	4,947	1,309	1,541	1,371	1,519	5,740	1,468	1,406	1,371	1,412	5,656	1,449	1,458	1,380	1,450	5,737	1,475	1,475	5,825
Note: Forecasts are in hold																							

Note: Forecasts are in bold

Source: World Agricultural Supply and Demand Estimates and Supporting Materials.

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Updated 9/14/2017

^{1/} Per capita meat and egg disappearance data are calculated using the Resident Population Plus Armed Forces Overseas series from the Census Bureau of the Department of Commerce.

Dairy Forecasts

Daily Forecasts	2015		2016				2017				2018	
	Annual	III	IV	Annual	- 1	II	III	IV	Annual	ı	II	Annual
Milk cows (thousands)	9,314	9,331	9,344	9,328	9,370	9,399	9,405	9,415	9,395	9,430	9,440	9,450
Milk per cow (pounds)	22,397	5,636	5,620	22,775	5,717	5,885	5,700	5,680	22,980	5,790	5,980	23,295
Milk production (billion pounds)	208.6	52.6	52.5	212.4	53.6	55.3	53.6	53.5	216.0	54.6	56.5	220.1
Farm use	1.0	0.3	0.3	1.0	0.2	0.2	0.3	0.3	1.0	0.2	0.2	1.0
Milk marketings	207.6	52.3	52.3	211.4	53.3	55.1	53.4	53.2	215.0	54.4	56.2	219.1
Milk-fat (billion pounds milk equiv.)												
Milk marketings	207.6	52.3	52.3	211.4	53.3	55.1	53.4	53.2	215.0	54.4	56.2	219.1
Beginning commercial stocks	10.5	17.8	16.0	12.3	12.7	16.2	17.9	15.8	12.7	12.8	16.1	12.8
Imports	5.8	1.7	1.7	7.0	1.5	1.4	1.5	1.6	6.1	1.4	1.4	5.7
Total supply	223.9	71.9	69.9	230.8	67.6	72.7	72.8	70.6	233.8	68.6	73.7	237.6
Commercial exports	8.5	2.0	2.5	8.4	2.1	2.5	2.4	2.3	9.2	2.1	2.4	9.2
Ending commercial stocks	12.3	16.0	12.7	12.7	16.2	17.9	15.8	12.8	12.8	16.1	17.9	12.1
Net removals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Domestic commercial use	203.0	53.9	54.8	209.7	49.3	52.4	54.6	55.5	211.8	50.3	53.4	216.3
Skim solids (billion pounds milk equiv.)												
Milk marketings	207.6	52.3	52.3	211.4	53.3	55.1	53.4	53.2	215.0	54.4	56.2	219.1
Beginning commercial stocks	9.4	10.3	9.7	9.2	9.5	10.6	11.6	10.9	9.5	10.2	10.2	10.2
Imports	6.0	1.6	1.7	6.5	1.7	1.5	1.6	1.7	6.4	1.6	1.5	6.2
Total supply	223.1	64.2	63.7	227.1	64.5	67.1	66.5	65.8	230.9	66.1	67.9	235.5
Commercial exports	37.3	10.2	10.9	39.0	9.8	10.3	10.0	10.5	40.6	10.0	10.7	41.8
Ending commercial stocks	9.2	9.7	9.5	9.5	10.6	11.6	10.9	10.2	10.2	10.2	10.8	9.4
Net removals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Domestic commercial use	176.6	44.3	43.3	178.5	44.2	45.2	45.6	45.1	180.1	46.0	46.4	184.3
Milk prices (dollars/cwt) 1												
All milk	17.13	16.90	17.80	16.30	18.23	16.83	17.70	18.05	17.70	17.60	17.10	17.55
							-17.90	-18.55	-17.90	-18.40	-18.10	-18.55
Class III	15.80	16.18	16.33	14.87	16.49	15.74	16.05	15.90	16.05	15.75	15.80	16.00
Class III	15.60	10.10	10.33	14.07	10.49	15.74	-16.25	-16.40	-16.25	-16.55	-16.80	-17.00
								10.10	10.20			17.00
Class IV	14.35	14.58	14.13	13.77	15.37	14.80	16.20	15.35	15.40	14.95	15.05	15.10
							-16.50	-15.95	-15.70	-15.85	-16.15	-16.20
Product prices (dollars/pound) ²												
Cheddar cheese	1.645	1.735	1.714	1.605	1.648	1.555	1.615	1.625	1.610	1.610	1.610	1.630
							-1.635	-1.675	-1.630	-1.690	-1.710	-1.730
Dry whey	0.380	0.288	0.366	0.288	0.485	0.508	0.425	0.385	0.445	0.395	0.405	0.410
Dry wney	0.360	0.200	0.300	0.200	0.465	0.506	-0.445	-0.415	-0.465	-0.425	-0.435	-0.440
Butter	2.067	2.206	1.958	2.078	2.200	2.229	2.565	2.450	2.355	2.345	2.315	2.330
							-2.605	-2.530	-2.395	-2.455	-2.445	-2.460
Nonfat dry milk	0.902	0.860	0.931	0.829	0.955	0.874	0.870	0.825	0.880	0.830	0.855	0.860
	3.302	0.500	0.001	0.020	0.000	0.07	-0.890	-0.865	-0.900	-0.890	-0.925	-0.930
		1			1				-			

Totals may not add due to rounding.

Sources: U.S. Dept. of Agriculture: National Agricultural Statistics Service, Agricultural Marketing Service, Foreign Agricultural Service, and World Agricultural Outlook Board. For further information, contact Jerry Cessna, 202-694-5171, jgcessna@ers.usda.gov, or contact Jonathan Law, 202-694-5544, jonathan.law@ers.usda.gov. Published in Livestock, Dairy, and Poultry Outlook, http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1350.

¹ Simple averages of monthly prices. May not match reported annual averages.

² Simple averages of monthly prices calculated by the Agricultural Marketing Service for use in class price formulas. Based on weekly U.S. Dept. of Agriculture, *National Dairy Products Sales Report*.



Economic Research Service

Situation and Outlook

LDP-M-279 SA

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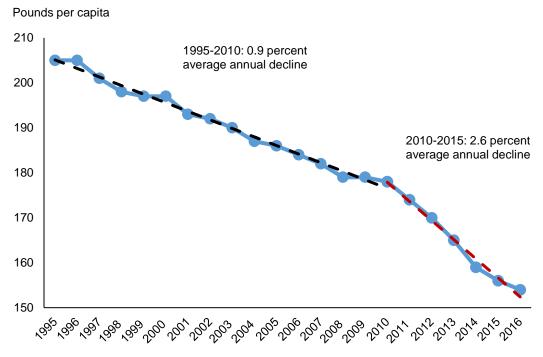
Livestock, Dairy and Poultry Outlook: Special Article

On Different Trajectories: A Look at Sales of Cow's Milk and Plant-Based Milk Analogs

Hayden Stewart (hstewart@ers.usda.gov) and Jerry Cessna (jgcessna@ers.usda.gov)

Annual per capita consumption of fluid beverage cow's milk has been falling for many years, and the rate of decline has recently increased. From 1995 to 2010, per capita consumption fell at an average annual rate of 0.9 percent. From 2010 to 2016, the average annual rate of decline was 2.6 percent. USDA's Economic Research Service (ERS) has explored various reasons for declining fluid milk consumption, including generational differences in milk-drinking habits (Stewart et al., 2013). Still other ERS research investigates the association between milk consumption, age, gender, race, and ethnicity (Lin et al., 2016).

Per-Capita Fluid Cow's Milk Consumption



Sources: U.S. Dept of Agriculture: Economic Research Service calculations, Agricultural Marketing Service; U.S. Department of Commerce, Bureau of the Census; California Department of Food and Agriculture.

In contrast to cow's milk, plant-based milk analogs¹ have seen rising popularity and are taking up more space in the dairy aisle. These products include almond, soy, coconut, cashew, rice, and other plant-based beverages. Much speculation surrounds the rise in popularity of these products. This article reports recent consumption trends for cow's milk and plant-based analogs based on household scanner data.

While USDA reports annual data on cow's milk consumption, the data do not provide income or demographic information, and USDA does not collect data concerning plant-based milk analogs. However, household scanner data from Information Resources, Inc. (IRI) can be used to examine household-level purchases of all grocery items, so it is useful for comparing consumption patterns for cow's milk and plant-based milk analogs.

IRI household scanner data are based on the National Consumer Panel (NCP), an operational joint venture equally owned by IRI and The Nielsen Company since 2009 (Muth et al., 2016). The data are provided by participating households who keep scanners in their homes. Panelists use these scanners to record their food purchases after each shopping occasion at a retail grocery store (e.g., supermarket, supercenter, convenience, or warehouse club store). IRI and Nielsen use the data for market research purposes on behalf of major food manufacturers and other firms. The data are also widely used by economic researchers to study food demand trends.

There are some limitations to IRI household scanner data, such as a lack of information on purchases at foodservice outlets, including restaurants and schools. Some panelists may also make mistakes when reporting information or fail to report all purchases. However, when analyzed using sample weights, the data are economically and demographically representative of households living in the contiguous U.S. as a whole. Moreover, research suggests that errors in household scanner data are of the same magnitude as Government-collected data sets commonly used to measure earnings and employment status (Einav et al., 2008).

For this article, dairy products include skim, low-fat, reduced-fat, and whole cow's milk, as well as flavored cow's milk (e.g., chocolate and strawberry), acidophilus milk, and buttermilk. ERS researchers estimated U.S. households' total purchases of these products in 2013, 2014, and 2015 (the most recent available data). Sample weights were used to obtain nationally representative estimates. Sales of dairy-based products like yogurt drinks, kefir, eggnog, and shakes are excluded.

Data on consumer purchases of plant-based milk analogs include almond, soy-based products, and other types. Products manufactured from two or more types of plant, such as almonds and coconut, are included in the "other" category. Finally, products like soy eggnog, and soy shakes were excluded from the analysis to maintain consistency with the set of products used to define sales of fluid cow's milk.

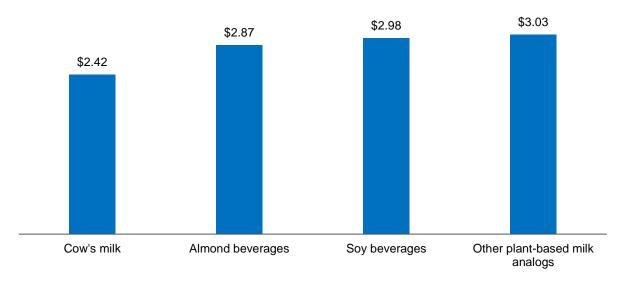
What do the data indicate? First, even though cow's milk consumption has declined, it remains a staple in most American households. In 2015, IRI data show that 92.2 percent of consumers bought cow's milk and 32.2 percent bought a plant-based milk analog at some time during the year. Indeed, 89.7 percent of households who bought one or more of the milk analogs considered in this article also bought cow's milk. Only 3.3 percent of households bought one or more milk analogs but no cow's milk.

Plant-based milk analogs are typically more expensive than cow's milk. In 2015, a half-gallon of cow's milk sold for \$2.42, on average. Average prices for almond, soy, and other plant-based products were \$2.87, \$2.98, and \$3.03 per half-gallon container, respectively.

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¹ According to the Cambridge Dictionary, the word analog (also analogue) means "something that is <u>similar</u> to or can be used <u>instead</u> of something <u>else</u>."

National-average retail price of a half-gallon container, 2015



Source: U.S. Dept. of Agriculture, Economic Research Service analysis of household data from Information Resources, Inc. (IRI).

Given the higher prices for plant-based milk analogs, it is not surprising that higher income households tend to purchase a greater quantity and spend more money on these products. However, differences in purchasing habits across income groups are small. The 2015 survey results were divided into four groups based on annual household income: less than \$25,000; \$25,000 to \$49,999; \$50,000 to \$99,999; and more than \$99,999. Among households who bought at least some milk and/or milk analogs and earned less than \$25,000 per year, milk analogs represented 6.8 percent of total purchases of both types of products by quantity. Among purchasing households with more than \$99,999 in annual income, milk analogs made up 8.4 percent of the total. Wide differences in income were found to be statistically significant with respect to the share percentages.

Consumption of plant-based milk analogs by quantity as percent of cow's milk, plus plant-based milk analogs in 2015

		95-percent con	fidence interval	
Annual household income	Share percent	Lower bound percent	Upper bound percent	Significantly different from
Less than \$25,000	6.81	6.18	7.44	\$50,000 or more
\$25,000 to \$49,999	7.13	6.72	7.55	More than \$99,999
\$50,000 to \$99,999	7.93	7.50	8.36	Less than \$25,000
More than \$99,999	8.38	7.83	8.92	Less than \$50,000

For income groups with non-overlapping confidence intervals, the share percentages are estimated to be significantly different.

Source: U.S. Dept. of Agriculture, Economic Research Service analysis of household scanner data from Information Resources, Inc. (IRI).

For many products, IRI data reveal changes in market share over the years. The market share of cow's milk, as a percent of all products considered in this article, fell from 94.33 percent in 2013 to 92.37 percent in 2015. Over the same period, the market share of almond beverages rose from 3.42 to 5.12 percent, while that of soy beverages fell from 1.82 to 1.38 percent. Sales of other plant-based products increased from 0.43 percent to 1.14 percent.

Market shares by quantity as a percent of cow's milk and plant-based milk analogs combined

Year	Cow's milk	Almond beverages	Soy beverages	Other plant-based milk analogs	Total
2013	94.33	3.42	1.82	0.43	100.00
2014	92.70	4.90	1.69	0.71	100.00
2015	92.37	5.12	1.38	1.14	100.00

Source: U.S. Dept. of Agriculture, Economic Research Service analysis of household scanner data from Information Resources, Inc. (IRI).

While this analysis provides an overview of the market for cow's milk and plant-based milk analogs, it is not possible from this information alone to determine whether these products complement or compete with one another, or the role—if any—that plant-based milk analogs have played in the declining per capita consumption of cow's milk.

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