



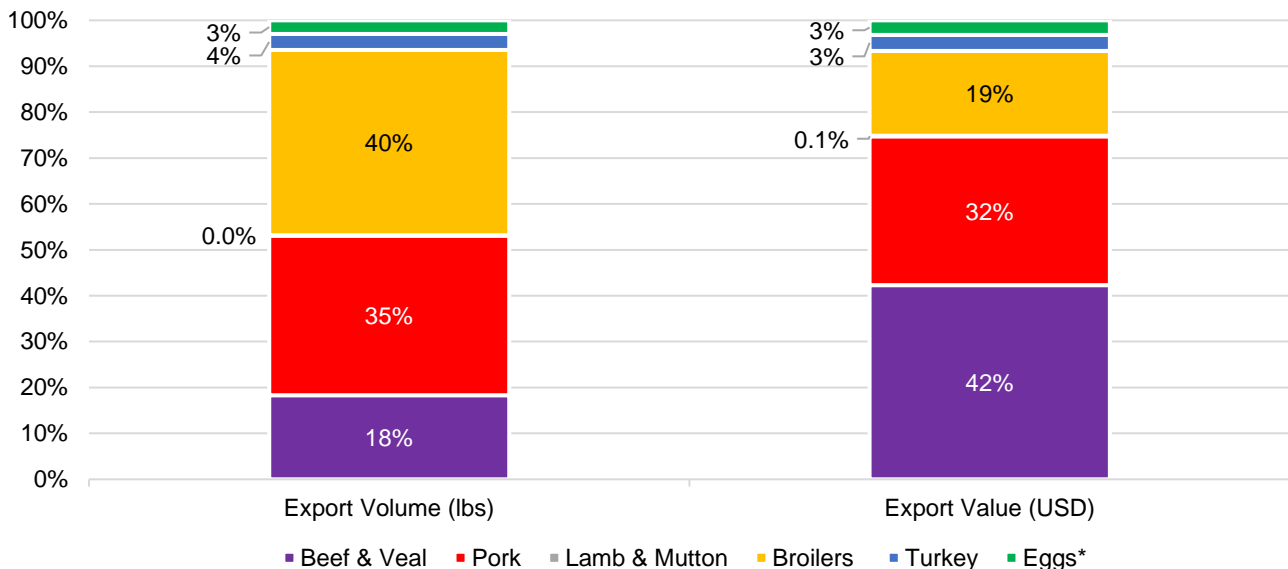
# Livestock, Dairy, and Poultry Outlook

## U.S. Exports of Animal Proteins: Broiler Exports Represent Largest Volume Share, While Beef Exports Comprise Greatest Value Share

Kim Ha

Year-to-date 2018 exports of beef, pork, lamb, poultry,<sup>1</sup> and eggs amounted to 10.1 billion pounds,<sup>2</sup> valued at \$9.8 billion. In terms of volume, broiler exports represented the largest share (40 percent) of total exports, followed by pork (35 percent), beef and veal (18 percent), turkey (4 percent), eggs (3 percent), and lamb (less than 1 percent) (see chart below). In comparison, the distribution of value shares is more or less equal for all commodities, except for broilers and beef. As depicted in the chart below, beef and veal represent the largest share (42 percent), followed by pork (32 percent), broilers (19 percent), turkey (3 percent), eggs (3 percent), and lamb (less than 1 percent).

Percentage share of major U.S. livestock and poultry exports by commodity, in terms of volume and value (January-July 2018)



Note: \* Includes eggs and egg products. Shell-egg equivalent converted from dozens to pounds by conversion factor of 1.5 lbs/dozen per egg-sizing guidelines from the U.S. Dept. of Agriculture, Food Safety and Inspection Service.  
Source: U.S. Dept. of Agriculture, Economic Research Service calculations using data from U.S. Dept. of Commerce, Bureau of the Census.

<sup>1</sup> Excludes other poultry

<sup>2</sup> Beef, pork, lamb & mutton and poultry volumes are in terms of carcass-weight equivalent; eggs converted from shell-egg equivalent (dozens) to pounds by factor of 1.5 lbs/dozen.

**Beef/Cattle:** The 2018 beef production forecast is unchanged from last month's forecast at 27.1 billion pounds. The third-quarter 2018 production forecast was reduced from last month, but it was offset by the higher anticipated production in the fourth quarter. The beef export forecast for 2018 was raised to reflect the record pace driven by strong demand from Asian markets. The 2019 beef export forecast was also raised.

**Dairy:** Due to recent price movements, forecasts have been raised for most dairy products and prices to be received by dairy farmers. The 2018 all-milk price forecast is \$16.30-\$16.50 per cwt, an increase from \$16.10-\$16.30 forecast last month. The 2019 all-milk price forecast is \$16.75-\$17.75, an increase from last month's forecast of \$16.45-\$17.45. Due to lower expected feed prices and higher milk price forecasts, the 2019 milk production forecast has been raised to 221.0 billion pounds, 0.1 billion higher than last month's forecast. With higher expected imports of butterfat products, cheese, and other miscellaneous products, import forecasts have been raised for both 2018 and 2019. With lower expected exports of whey products, export forecasts have been lowered for both 2018 and 2019.

**Pork/Hogs:** Despite accelerated growth in pork production in 2018, total cold stocks of pork have remained at or below 3- and 5-year averages so far this year. Lower pork 2018 prices have encouraged domestic and foreign consumers to demand increased quantities of U.S. pork. Large supplies of hogs are expected to keep hog prices significantly below year-earlier levels through at least the first half of 2019. July pork exports were almost 9 percent higher than a year earlier. Third-quarter pork exports are expected to be 1.3 billion pounds, almost 6 percent higher than in the same period a year ago.

**Poultry/Eggs:** Broiler production projections were not revised, while price projections were decreased for the remainder of 2018 and 2019 on recent price trends and increasing probability of competition across meats. Projections for egg production were revised down slightly for the remainder of 2018 on recent production indicators, while prices were revised down for the third quarter only, on recent price declines just before September.

# Cattle / Beef

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Russell Knight and Lekhnath Chalise

## Lighter Weights Offset Higher Slaughter in Second-Half 2018

The 2018 beef production forecast is unchanged from last month's forecast at 27.1 billion pounds. However, the 2018 production forecast reflects lower expected production in the third quarter that offsets higher anticipated production in the fourth quarter.

In third-quarter 2018, the pace of steer and heifer slaughter in July and August was slower than expected. Although slaughter in September will likely reflect rates of per day slaughter slightly above last year, there is 1 less slaughter day in the month of September than last year. Based on the latest NASS *Cattle on Feed* report, a higher percentage of steers and heifers were on feed longer than a year ago, which is not yet showing up in the weekly average dressed weights. As a result, for the week ending September 1, average dressed weights for heifers were 8 pounds above last year, while steers were 2 pounds below a year ago. The slower pace of steer and heifer slaughter may suggest that some of the cattle that might have been marketed in the third quarter will be marketed in the fourth quarter. On the other hand, cow slaughter remains strong through the third quarter, but the higher proportion of typically lighter-weight cows is negating some of the seasonal increases in steer and heifer dressed weights. As a result, the third-quarter beef production forecast is reduced as higher anticipated cow slaughter is nullified by the lower than expected steer and heifer slaughter and lower cattle dressed weights.

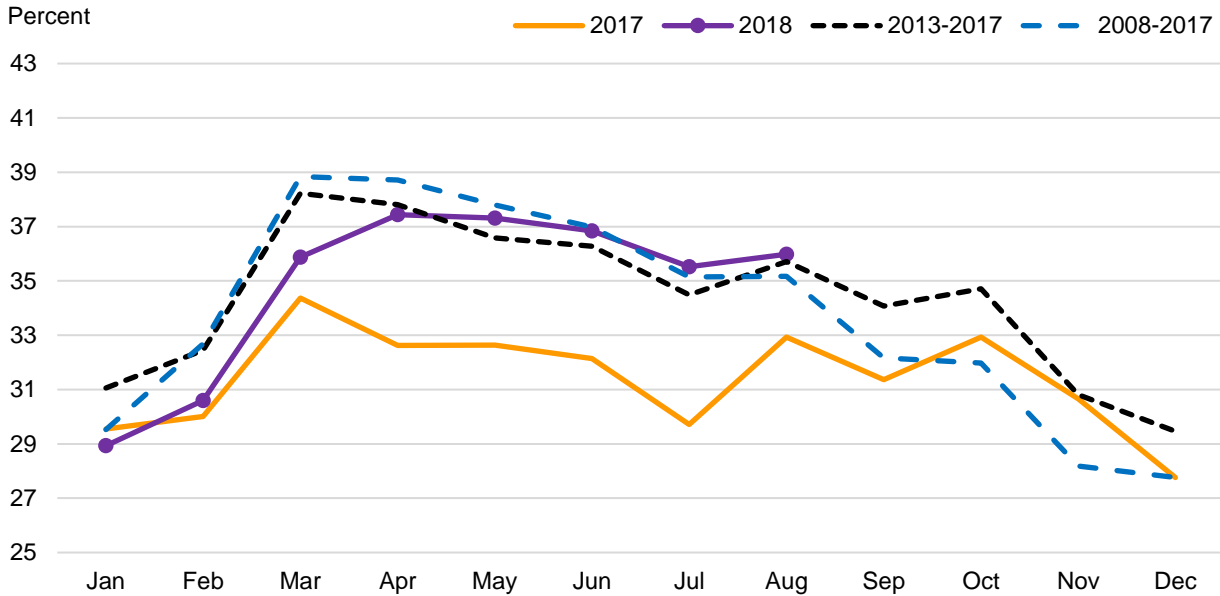
Beef production is forecast higher in fourth-quarter 2018 as a result of higher anticipated cow slaughter and the expectation that some of the fed cattle that might have been marketed in the third quarter are expected to come out in the fourth quarter. This will likely elevate steer and heifer dressed weights in the fourth quarter.

The 2019 beef production forecast was left unchanged at 27.7 billion pounds.

## Fall Seasonal Pricing To Take Effect

Feeder cattle prices have shown strength through the summer, but seasonal pressures will likely take hold, moving prices lower in the fourth quarter. Prices typically decrease when the spring-born calves (about two-thirds of the annual calf crop) are brought to market in the fall. Assuming normal weather in the Great Plains, availability of winter forages for backgrounding could bolster prices in fourth-quarter 2018. The third-quarter 2018 price forecast was raised to \$148-\$151 per hundredweight (cwt), and the fourth-quarter 2018 price forecast was increased to \$143-\$151/cwt. The forecast of the 2019 feeder steer annual price was raised to \$139-\$151/cwt on the basis of lower corn prices forecast for the following marketing year.

## Percent of cattle on feed over 120 days



Source: U.S. Dept. of Agriculture, Economic Research Service using data from the National Agricultural Statistics Service.

Regarding fed cattle prices in second-half 2018, feedlots seem to have resisted recent lower prices from packers, which may be reflected in a greater proportion of cattle on feed over 120 days, as shown in the chart above. To the extent these cattle are remaining on feed longer as producers respond to the prospects of higher future prices, there could be a shift of some marketings from the third quarter to the fourth. The fed steer price forecast for the 5-area marketing region in third-quarter 2018 is \$108-\$111/cwt, but the fourth-quarter forecast is lowered to \$108-\$114/cwt in line with expectations of increased marketings. The 2019 fed steer price forecast is unchanged from last month.

## Beef Exports Continue Record Pace

In July, U.S. beef exports reached 279 million pounds, an almost 17-percent increase from 2017, bringing total beef exports for 2018 through July to 15 percent above the same period a year ago. Through July, the major Asian markets for the United States—Japan, South Korea, Taiwan, Hong Kong, and the Philippines—drove this strong record pace with a combined share of nearly 65 percent of the volume of exports. U.S. beef exports to North American markets are also exhibiting positive growth, with a year-over-year share of 24 percent of the market through July, a 6-percent growth so far this year. Mexico leads North America with 10-percent year-over-year growth, while exports to Canada are 0.7 percent above last year. Based on the strong pace of exports through July and USDA Foreign Agricultural Service Export Sales reports through August, the 2018 beef export forecast was raised by 40 million pounds to 3.164 billion pounds. The 2019 beef export forecast was raised 40 million pounds from last month to 3.245 billion pounds.

Imports of U.S. beef in July reached 295 million pounds, down almost 2 percent from a year ago. The cumulative year total through July is 1.822 billion pounds, less than 1 percent above a year ago. The beef import forecasts for 2018 and 2019 are unchanged from last month.

# Dairy

Jerry Cessna and Jonathan Law

## Recent Developments in Dairy Markets

From the week ending August 4 to the week ending September 8, price directions for all major wholesale dairy products reported in the USDA *National Dairy Products Sales Report* (NDPSR) increased. The largest price increases were for cheddar cheese, with 40-pound blocks and 500-pound barrels increasing by 10.3 cents and 22.3 cents, respectively.

### Dairy wholesale product prices (dollars per pound)

	For the week ending		Change
	Aug. 4	Sept. 8	
Butter	2.2710	2.3020	0.0310
Cheddar cheese			
40-pound blocks	1.5731	1.6758	0.1027
500-pound barrels <sup>1</sup>	1.4197	1.6427	0.2230
Nonfat dry milk	0.8016	0.8447	0.0431
Dry whey	0.3550	0.3972	0.0422

<sup>1</sup> Adjusted to 38-percent moisture.

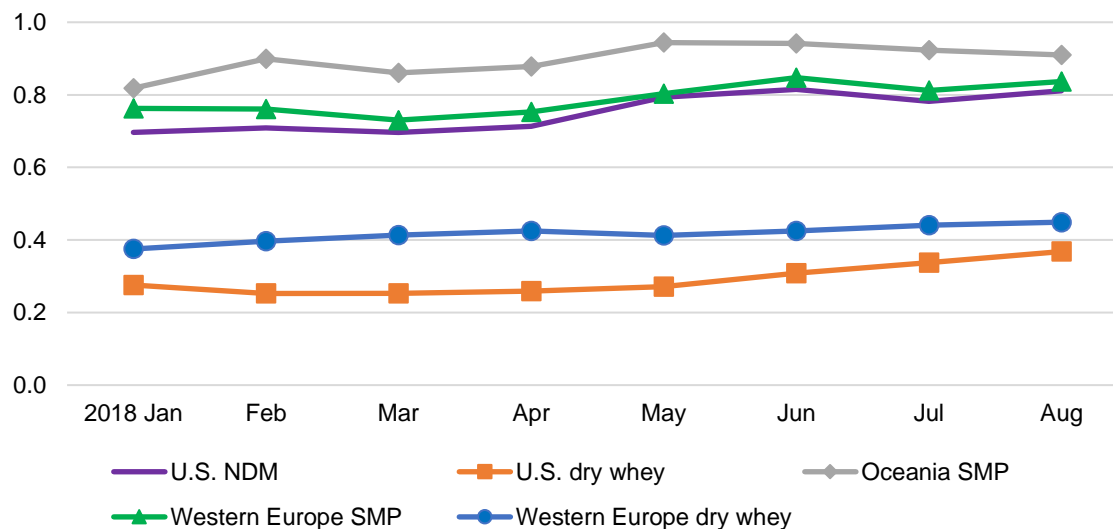
Source: USDA, Agricultural Marketing Service, *National Dairy Products Sales Report*.

For the trading week ending September 14, the Chicago Mercantile Exchange (CME) spot prices for butter, cheddar cheese 40-pound blocks, and cheddar cheese 500-pound barrels were \$2.23, \$1.63, and \$1.47 per pound, respectively—all lower than the corresponding NDPSR prices for the week ending September 8. The CME butter price usually leads the NDPSR butter price for the following week, and the CME cheese prices usually lead the NDPSR cheese prices for the following 2 weeks.

U.S. dairy product prices continue to be competitive with foreign export prices. However, domestic prices for products with high skim-solids content have been converging with foreign export prices in recent months. While the U.S. domestic nonfat dry milk (NDM) price has been only a little lower than Western Europe skim milk powder (SMP) in recent months, the gap between the Oceania SMP export price and the U.S. price fell from 16 cents in April to 10 cents in August. The gap between the Western Europe dry whey export price and the U.S. domestic price fell from 17 cents in April to 8 cents in August.

## U.S. wholesale domestic prices for nonfat dry milk and dry whey and corresponding foreign export prices

U.S. dollars per pound

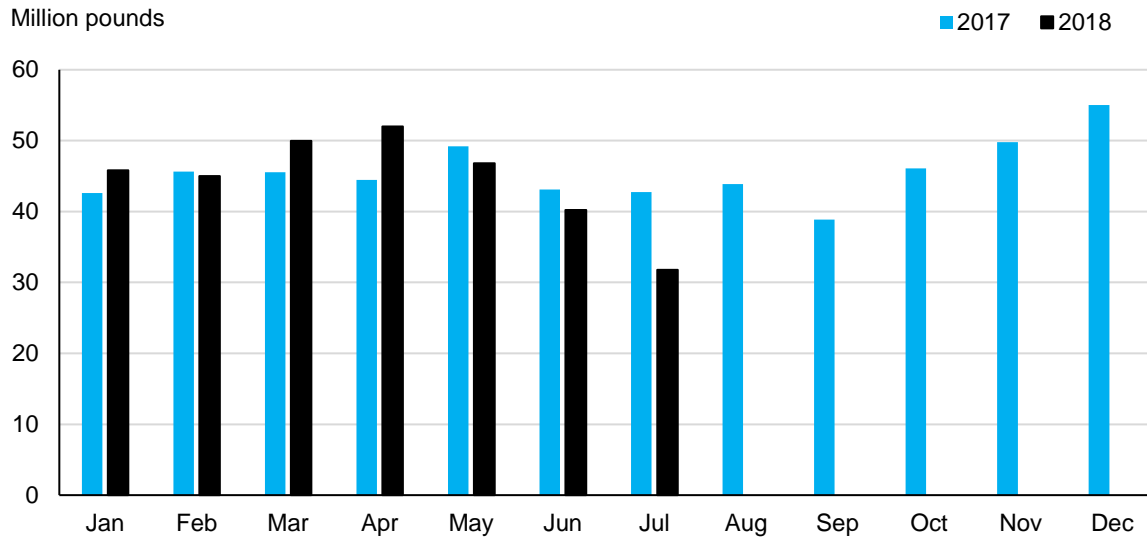


NDM = nonfat dry milk, SMP = skim milk powder.  
Source: USDA Agricultural Marketing Service.

USDA National Agricultural Statistics Service (NASS) reported U.S. milk production in July to be 18.350 billion pounds, only 0.4 percent above July 2017. Milk cows numbered 9.396 million head in July, 8,000 less than both June 2018 and July 2017. Milk per cow was 1,953 pounds in July, only 10 pounds above July 2017. Relatively low milk prices and strengthening feed prices have likely contributed to low milk production growth. The milk-feed ratio declined from 2.54 in November to 1.9 in May and has been below 2.0 since then. Heat stress in some parts of the country likely played a role as well. In much of the West, average temperatures in June and July were 3-4 °F above the 1901-2000 base-period means (National Oceanic and Atmospheric Administration).

In July, U.S. dairy product exports on a milk-fat milk-equivalent basis were 883 million pounds, 142 million more than July 2017 but 106 million less than June 2018. July dairy exports on a skim-solids milk-equivalent basis were 3.503 billion pounds, 391 more than July 2017 but 269 million less than June 2018. Tariffs enacted by Mexico and China contributed to the decline in exports from June to July. The main products impacted by the tariffs are cheese exports to Mexico and exports of whey products (dry whey, whey protein concentrate, modified whey, and milk albumin) to China. From June to July, total U.S. cheese exports fell by 15 million pounds, with cheese exports to Mexico declining by 12 million pounds. Total U.S. exports of whey products fell by 14 million pounds from June to July, with whey product exports to China falling by 8 million pounds.

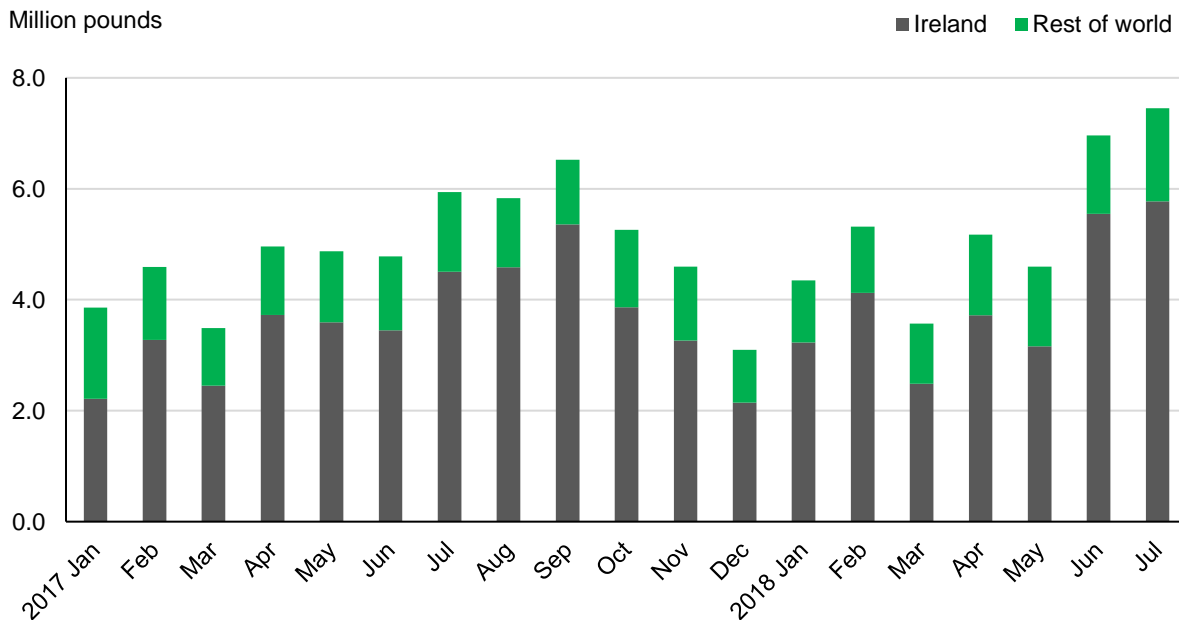
## U.S. exports of whey products to China <sup>1</sup>



<sup>1</sup> Includes dry whey, whey protein concentrate, modified whey, and milk albumin (whey protein isolate).  
Sources: U.S. Census Bureau data as reported by USDA Foreign Agricultural Service.

In July, imports on a milk-fat basis were 574 million pounds, 62 million more than July 2017 and 66 million more than June 2018. On a skim-solids basis, imports were 504 million pounds, 367 million less than July 2017 but 78 million more than June 2018. Imports of butter were 7.5 million pounds in July, the highest of any month since May of 2004, with 77.5 percent of the butter imports coming from Ireland. Cheese imports were also relatively high at 25.4 million pounds, 2.7 million higher than July 2017.

## U.S. butter imports from Ireland and the rest of the world



Sources: U.S. Census Bureau data as reported by USDA Foreign Agricultural Service.

## USDA Assistance for the Dairy Industry

In recent weeks, USDA has taken several steps in support of the U.S. dairy industry. On August 8, USDA Risk Management Agency (RMA) announced a new Dairy Revenue Protection program that insures against unexpected declines in quarterly revenue from milk sales. Sign-up for the new product begins Tuesday, October 9, 2018, with the first available coverage starting the first quarter of 2019. For more information see the RMA website's Livestock page.

On August 14, USDA announced plans to purchase fluid milk (whole, 2-percent, 1-percent, and skim) in half-gallons for distribution to The Emergency Food Assistance Program (TEFAP). Purchases will be made under the authority of Section 32 of the Act of August 24, 1935. This will be the first time that the Government has purchased fluid milk under this authority.

On September 4, U.S. Secretary of Agriculture Sonny Perdue launched a trade mitigation package to assist farmers adversely affected by recent trade actions of foreign countries. The package includes three programs: (1) a Market Facilitation Program that will provide payments to producers of designated agricultural products; (2) a Food Purchase and Distribution Program that will distribute designated commodities through nutrition assistance programs; and (3) an Agricultural Trade and Promotion Program to develop foreign markets for agricultural products.

Under the Market Facilitation Program, participating dairy producers will be paid the market facilitation program rate of \$0.12 per cwt times 50 percent of production, with production calculated in the same manner as for the Margin Protection Program for Dairy Producers. For existing dairy operations, the production history is established based on the highest annual production marketed during the full calendar years of 2011, 2012, and 2013. Payments are capped at \$125,000 per person or legal entity. Dairy operations are also required to have been in operation on June 1, 2018. The sign-up period runs through January 15, 2019. Estimated initial payments to dairy producers under the program are expected to total \$127.4 million. USDA may announce an additional payment period.

On September 11, USDA Agricultural Marketing Service issued a pre-solicitation announcement for the purchase of up to \$84.918 million of dairy products under the Food Purchase and Distribution Program. The authority for the purchase is Section 5 of the Commodity Credit Corporation (CCC) Charter Act for distribution to various food nutrition assistance programs. Products to be procured include, but are not limited to, processed cheese in regular loaves, cheddar cheese chunks, and fluid milk (gallons or half-gallons). The delivery timeframes under this announcement are December 16, 2018, through June 2019 for cheese and April through September 2019 for fluid milk.

## Outlook for Feed Prices

The 2017/18 feed price estimate for corn is \$3.40 per bushel, unchanged from last month's estimate. For soybean meal, the 2017/18 feed price estimate is \$345 per short ton, \$5 less than last month's estimate. The alfalfa hay price in July was \$179 per short ton, \$2 lower than June but \$26 higher than July of last year. The average corn price for 2018/19 is projected to be \$3.00-\$4.00 per bushel, 10 cents lower at the midpoint than last month's forecast. The 2018/19 average soybean meal price is projected at \$290-\$330 per short ton, \$5 lower than last month's forecast at the midpoint. For more information, see the USDA Economic Research Service publication *Feed Price Outlook*.



## Dairy Forecasts for 2018

With the size of the milking herd falling by 8,000 head from June to July, the 2018 forecast for milk cows has been lowered by 5,000 to 9.400 million head. The milk per cow forecast for the year is unchanged at 23,175 pounds. The milk production forecast for 2018 is 217.8 billion pounds, 0.1 billion less than last month's forecast.

The forecast for imports on a milk-fat basis has been raised 0.2 billion pounds to 6.2 billion for the year, as both butter and cheese imports saw strong year-over-year gains in July. Exports on a milk-fat basis are now forecast at 10.3 billion pounds for the year, slightly lower than previously forecast. Ending stocks are forecast at 13.5 billion pounds, unchanged from last month. The domestic use forecast for the year has been raised 0.2 billion pounds to 212.6 billion.

On a skim-solids basis, the import forecast for the year has been raised slightly to 5.7 billion pounds due to higher expected imports of cheese and several miscellaneous products. July whey product exports declined more than expected and are not expected to rebound significantly for the remainder of 2018. Therefore, exports on a skim-solids basis are now forecast at 44.7 billion pounds, 0.7 billion pounds lower than the last forecast. Higher domestic demand will make up for some, but not all, of the lost exports. As a result, the ending stock forecast has been raised 0.5 billion pounds to 11.0 billion pounds for the year, and domestic use is forecast 0.2 billion pounds higher at 178.6 billion pounds.

Based on recent price movements, dairy product price forecasts for 2018 have mostly been raised from the previous projections. Prices for cheddar cheese and NDM have been raised to \$1.570-\$1.590 and \$0.785-\$0.805, respectively. Although exports of whey products have fallen significantly, stocks of whey products have been relatively low. As a result, the export forecast for dry whey has been raised to \$0.320-\$0.340 per pound. With recent weakness in CME butter prices, the butter price forecast has been lowered to \$2.220-\$2.260 per pound.

With higher cheese and whey price forecasts, the Class III milk price forecast for the year has been raised to \$14.85-\$15.05 per cwt. With the higher NDM price forecast more than offsetting the lower butter price forecast, the Class IV milk price forecast has been raised to \$14.00-\$14.30 per cwt. The all-milk price forecast for 2018 has been raised 20 cents at the midpoint of the range to \$16.30-\$16.50 per cwt.

## Dairy Forecasts for 2019

With higher milk price forecasts and lower feed price forecasts, the size of the milking herd is expected to grow fractionally in 2019; the milk cow forecast for the year is now 9.405 million head. Milk per cow is forecast at 23,495 pounds for 2019, unchanged from last month. Milk production is projected at 221.0 billion pounds for the year, an increase of 0.1 billion pounds from the last forecast.

Imports on a milk-fat basis for 2019 are forecast at 6.0 billion pounds for 2019, 0.4 billion higher than last month's forecast, as recent strength in butter and cheese imports is expected to continue. The export forecast has been lowered to 9.8 billion pounds, 0.1 billion less than last month, due to lower expected exports of whey products. The ending stock forecast for 2019 on a milk-fat basis is unchanged at 12.5 billion pounds, as stocks should draw down from 2018. The domestic use forecast on a milk-fat basis for 2019 has been raised to 216.9 billion pounds, 0.3 billion more than last month's forecast. CCC donations through the Trade Mitigation Food Purchase and Distribution Program are expected to total 0.3 billion pounds on a milk-fat basis for 2019.

Imports on a skim-solids basis are forecast slightly higher for 2019 at 5.6 billion pounds due to higher expected cheese imports. With lower expected whey product exports, the export forecast on a skim-solids basis has been lowered to 44.1 billion pounds, 0.7 billion less than last month's forecast. Ending stocks in 2019 are now expected to be 0.3 billion pounds higher than the last forecast, at 10.8 billion pounds. Domestic use on a skim-solids basis for 2019 is forecast 0.9 billion pounds higher, at 181.5 billion. CCC donations through the Trade Mitigation Food Purchase and Distribution Program for 2019 are expected to total 0.2 billion pounds on a skim-solids basis.

Although expectations are lower for whey product exports, tightness in the whey product markets is expected to last into the first part of 2019. As a result, the dry whey price forecast for 2019 has been raised to \$0.350-\$0.380 per pound. The NDM price forecast has been raised to \$0.825-\$0.895 per pound as recent price strength should continue into 2019. The cheddar cheese price forecast for 2019 is unchanged at \$1.590-\$1.690 per pound, while the butter price forecast has been lowered slightly to \$2.205-\$2.335 per pound.

As a result of the higher whey price forecast, the 2019 Class III price forecast has been raised to \$15.20-\$16.20 per cwt. With the higher expected NDM price expected to more than offset the lower expected butter price, the Class IV forecast has been raised to \$14.30-\$15.40 per cwt. The all-milk price is forecast 30 cents higher at the midpoint of the range for the year, at \$16.75-\$17.75 per cwt.

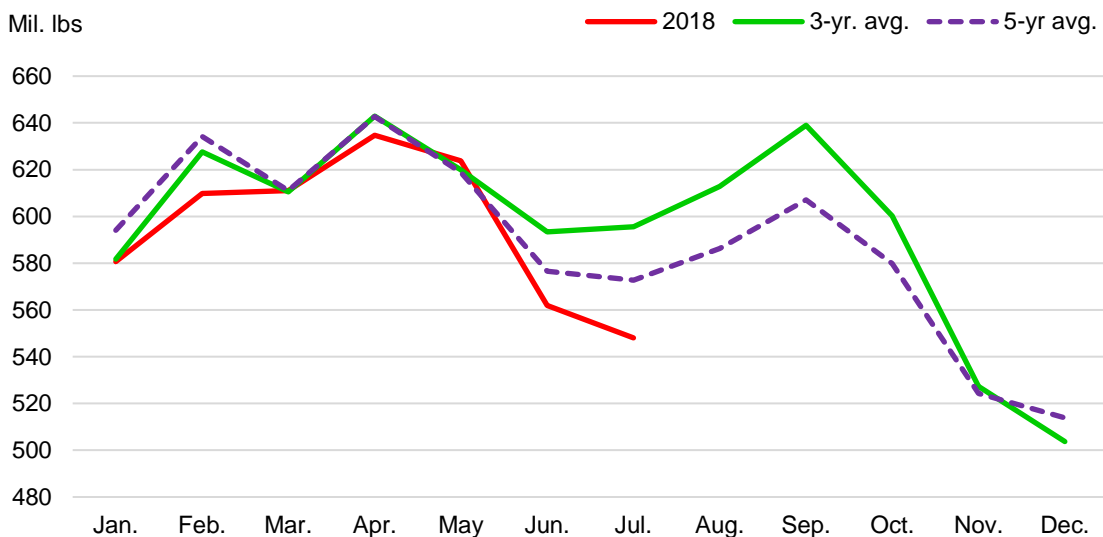
# Pork / Hogs

Mildred Haley

## Despite Accelerated Pork Production, Cold Stocks Remain Relatively Current

From the beginning of 2018 through the end of July, the U.S pork industry has produced 3.8 percent more pork compared with the same period last year. Despite accelerated rates of pork production, it is notable that 2018 pork stocks have remained relatively current. The figure below shows monthly USDA\NASS data for pork cold stocks indicating that since the beginning of the year, pork stocks have maintained levels about equal to, or below, their 3- and 5-year averages.

### Pork, total cold stocks



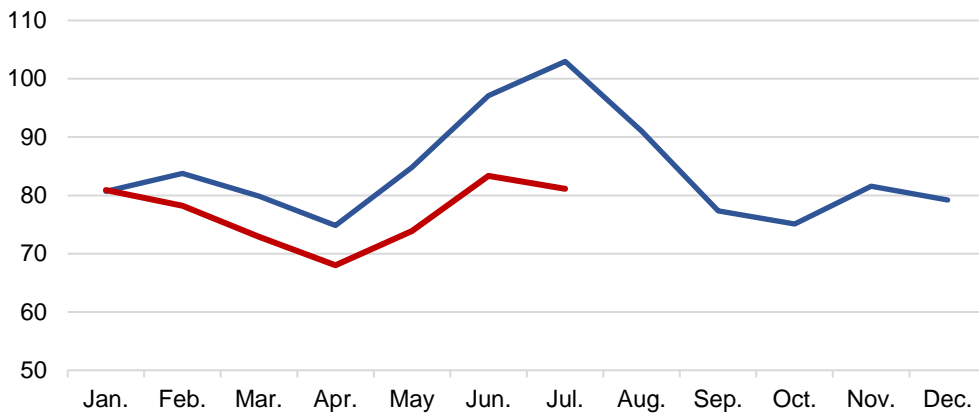
Source: National Agricultural Statistics Service, USDA

The increases in pork production have largely been consumed either domestically or in foreign markets. In the first 7 months of 2018—the latest time for which a full set of data is available—per capita disappearance was about 36.9 pounds. In 2017, over the same 7-month period, domestic per capita disappearance was about 35.9 pounds. On the export side, through July, 3.5 billion pounds of pork have been exported, an increase of 6.5 percent over the same period last year. This volume constitutes 23.1 percent of commercial pork production, compared with 22.5 percent over the same period in 2017.

More pork on the market this year has driven pork prices lower, likely inducing consumers—both domestic and foreign—to demand larger quantities of pork. The figure below shows the wholesale pork carcass cutout for January-July 2018 and 2017. So far in 2018, this composite wholesale pork price has averaged \$75.66 per cwt, more than 12 percent below the same period last year.

## Wholesale pork carcass cutout

\$/cwt



Source: Agricultural Marketing Service, USDA.

## Lower Hog Prices Are Anticipated Through First-Half of 2019

Larger slaughter numbers are expected to weigh on hog prices from now through the first half of 2019. Third-quarter prices of live equivalent 51-52 percent lean hogs will likely average \$42-\$43 per cwt, while fourth-quarter average prices are expected to decline to \$31-\$33 per cwt. First-quarter hog prices are anticipated to average \$36-\$38 per cwt, almost 25 percent lower than a year earlier. Second-quarter prices are expected to average \$41-\$45 per cwt, about 10 percent below a year earlier.

USDA\NASS will release results from its producer survey on September 27, 2018. The *Quarterly Hogs and Pigs* report will detail September 1 hog and pig inventories, the June-August farrowings, pig crop and litter rates, and producer farrowing intentions for the fall and winter quarters.

## July Exports Exceed Year-Earlier Levels Despite Tariffs

Pork exports in July were 425 million pounds, almost 9 percent more than a year earlier. Total exports were stronger despite lower shipments to Mexico and China, both of which have imposed retaliatory tariffs on U.S pork products. July exports were supported by strong shipments to South Korea, Japan, the Philippines, Australia, and Colombia. July exports to the 10 largest export destinations are summarized below.

**U.S. pork exports: Volumes and export shares of the 10 largest foreign destinations, July 2017 and 2018**

	Country	Exports July 2017 (mil. lbs)	Exports July 2018 (mil. lbs)	Percent change (2018/2017)	Export share July 2017 %	Export share July 2018 %
	World	390	425	8.9		
<b>1</b>	Mexico	129	127	-1.0	33.0	30.0
<b>2</b>	Japan	88	94	6.6	22.5	22.1
<b>3</b>	South Korea	25	41	64.0	6.4	9.6
<b>4</b>	Canada	45	41	-9.4	11.5	9.6
<b>5</b>	China/Hong Kong	28	23	-17.3	7.3	5.5
<b>6</b>	Australia	17	18	8.6	4.2	4.2
<b>7</b>	Colombia	11	17	52.8	2.9	4.0
<b>8</b>	Chile	8	11	32.4	2.1	2.6
<b>9</b>	Dominican Republic	7	11	61.1	1.7	2.5
<b>10</b>	Philippines	7	10	44.7	1.8	2.4

Source: Economic Research Service, USDA.

Third-quarter pork exports are expected to total 1.3 billion pounds, almost 6 percent above exports a year ago. Exports for 2018 are anticipated to total just shy of 6 billion pounds, an increase over 2017 of more than 6 percent. Next year, 2019 exports are expected to be 6.1 billion pounds, an increase of about 2 percent over this year's forecast.

# Poultry

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Sean Ramos, Kim Ha, and Alex Melton

## Broiler Production Expectations Steady

July broiler production was 3.6 billion pounds, 2.4 percent higher than a year earlier after adjusting for 1 more slaughter day this year. Growth was the result of average live weights up 1.0 percent from last year and more birds slaughtered.

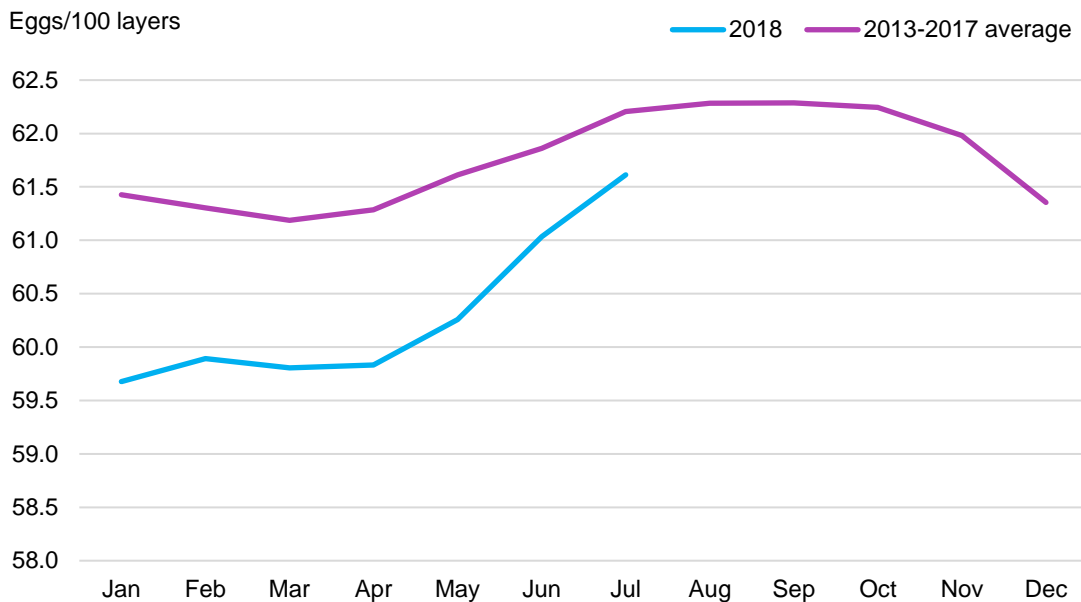
As of August 1st, a reduction of 1.0 percent of the breeder inventory from the previous month left 58.2 million birds, reflecting a seasonal decline typically associated with reduced temperatures and expectations for seasonally weaker broiler meat demand later in the year. The rate of decline has occurred faster than normal, most likely related to dynamics occurring within the breeder flock.

Inventory levels this year have been at elevated levels to compensate for lower breeder productivity, including fewer eggs per layer and fewer of those hatching than in previous years. This year, first-of-the-month inventory has averaged 4 percent higher year-over-year, double the average growth rate for 2013-17.

The figure below shows that recent breeder productivity has recovered by attaining faster-than-normal growth in eggs per layer. June-July eggs produced per 100 birds this year were much closer to the average of the previous 5 years than earlier months. As a result, breeder inventory declines have been partly offset and it is expected that producers will manage inventory levels with reference to breeder productivity. With these largely offsetting changes, projected broiler production was not revised, with growth expected at 2.3 percent for 2018 and 1.9 percent for 2019.

## Breeder productivity trended upward recently

Average daily egg production per 100 broiler type layers



Source: Economic Research Service calculations using data from U.S. Dept. of Agriculture, National Agricultural Statistics Service.

## Broiler Export Volumes Up, but Values Down

Broiler exports were 584.6 million pounds in July, a 5-percent increase over July 2017 volumes. Conversely, July exports were valued at \$265.6 million, a 2-percent decrease over 2017 and the first year-over-year (YOY) decline since June 2016<sup>3</sup>. The top-five largest foreign broiler markets in terms of volume and value are presented in the table below. As the table shows, Mexico represents the largest share of the market, both in terms of volume and value. Also of note, while Canada is the fifth-largest market by volume, it is the second-largest market in terms of value.

### Top-five broiler markets by percent share of export market, by volume and value (YTD 2018)

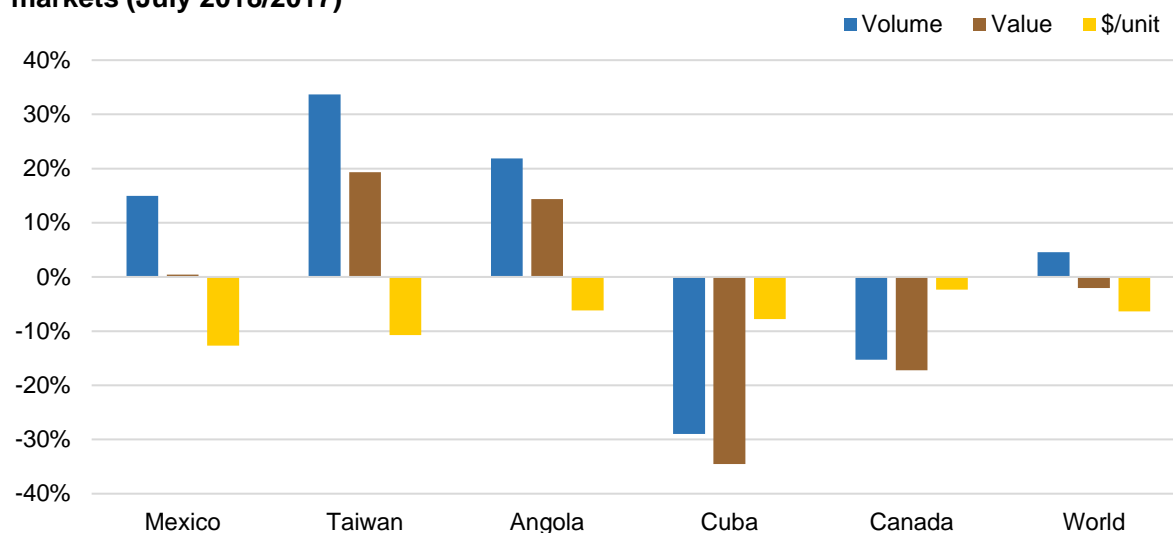
	Volume			Value	
	Country	% Share		Country	% Share
1	Mexico	19.8		Mexico	16.0
2	Taiwan	7.5		Canada	11.8
3	Angola	7.0		Taiwan	7.0
4	Cuba	6.9		Angola	6.0
5	Canada	4.6		Cuba	5.2

July shipments to Mexico increased 15 percent by volume YOY, likely in part due to substitution of U.S. pork, exports of which were down 1 percent. The price per unit of broiler products exported to Mexico was down YOY across the board, but the sizeable increase in volume flow made up for declining prices; the value of shipments was up marginally, just shy of 1 percent over the previous year. U.S. broiler export volumes to Taiwan and Angola increased YOY by 34 percent and 22 percent, respectively, driven by increases of dark meat. While the value of shipments increased by 19 percent

<sup>3</sup> June 2016 was the final month in an 18-month-long streak of YOY declines of broiler export values.

YOY to Taiwan and by 14 percent to Angola, the average price per unit decreased by 11 percent and 6 percent, respectively, due to declining prices of U.S. dark meat. Shipments to Cuba were down 29 percent, driven by a 40-percent decline in volumes of dark meat, which constitutes 84 percent of broiler products to Cuba. The value of these exports was also down by 35 percent due to the lower dark meat prices. The U.S. exported 15 percent less broiler meat to Canada in July, likely due to strong Canadian broiler production. Total shipments were valued 17 percent lower than in 2017, due to lower volumes and decreasing prices of U.S. breast meat, which comprises 69 percent of broiler products sent to Canada.

### Year-over-year percentage change of broiler export indicators for top-five broiler markets (July 2018/2017)



Source: U.S. Dept. of Agriculture, Economic Research Service calculations using data from U.S. Dept. of Commerce, Bureau of the Census.

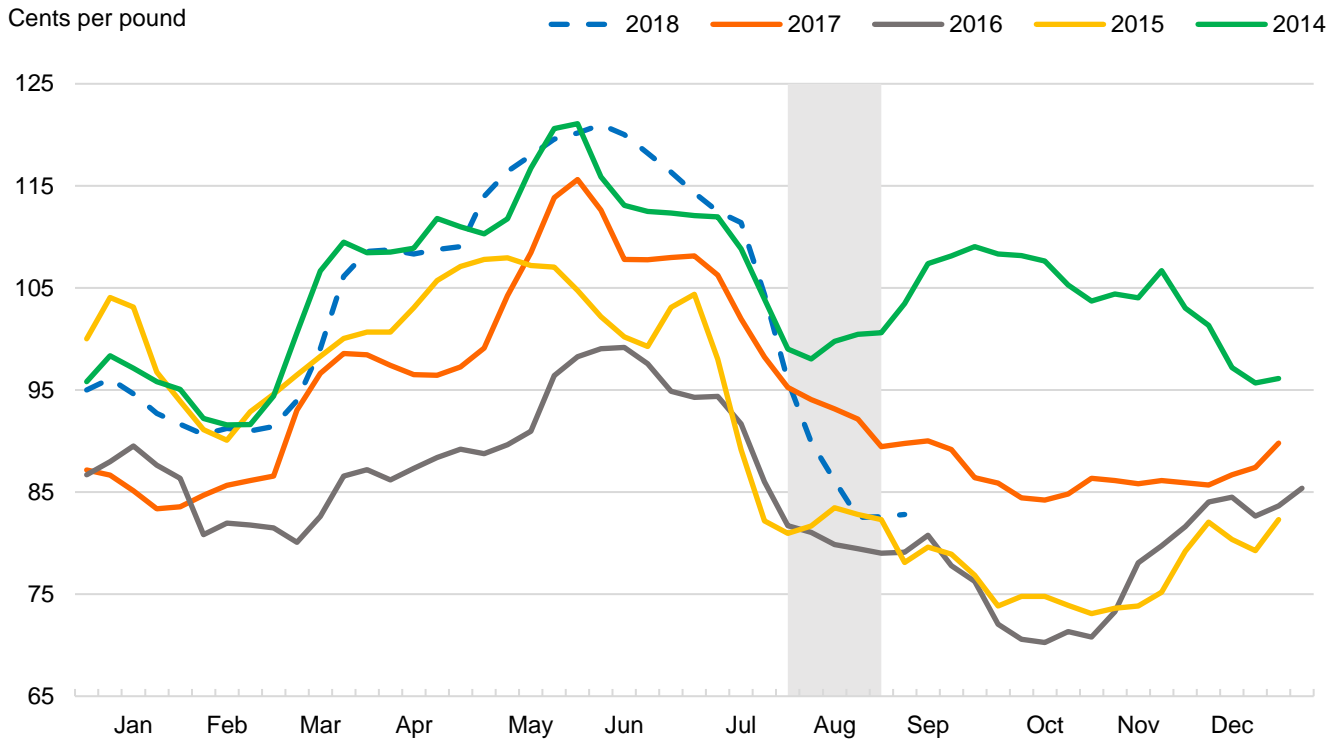
## Broiler Prices Fall Sharply in August, Forecasts Decreased Through 2019

Weekly prices for whole broilers (national composite) during August dropped at a greater-than-seasonal rate, dipping below 2015 levels<sup>4</sup> for the week ending August 24 at 82.5 cents per pound (see chart below). After 5 consecutive week-over-week decreases exceeding 4 percent, it appears that prices have stabilized and have begun increasing slightly, lingering near 83 cents per pound. This downward pressure on broiler prices is likely due to a combination of large broiler meat supplies and competition from other meats. For the remainder of the year and through 2019, prices are forecast downward: third-quarter prices are forecast lower to 93-94 cents per pound and fourth-quarter prices are forecast 82-86 cents per pound. For 2019, broiler prices are forecast to average 92-100 cents per pound, a decrease of 4 cents at the midpoint from last month's forecast.

<sup>4</sup> Broiler prices decreased significantly in the second half of 2015 through 2016, as a result of the highly pathogenic avian influenza.



## Broiler prices appear to stabilize after sharp decline



Source: U.S. Dept. of Agriculture, Agricultural Marketing Service

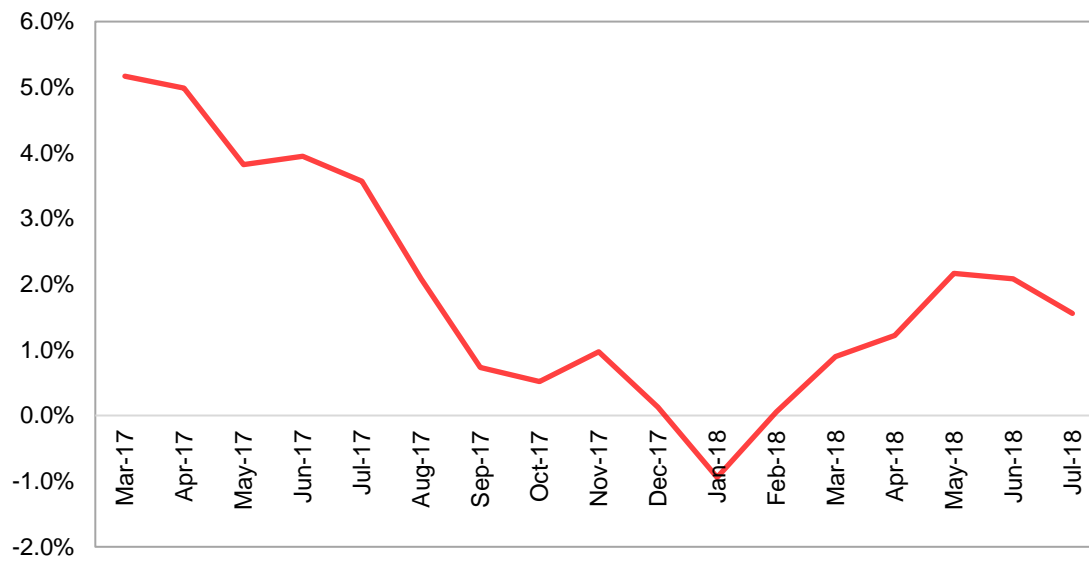
## Egg Production Expectations Reduced Slightly

July table egg production reached 659 million dozen, an increase of 1.6-percent year over year. This was slightly lower growth than in the previous 2 months, as shown in the figure below. The August 1st inventory of table egg layers was 322.9 million, a decrease from the previous month, though August inventory is typically higher as a prelude to higher expected consumption demand in the fall months.

Slowing in table egg production and the inventory decline contributed to slightly lower second-half (2018) production projections. The forecast for second-half table egg production was reduced by 20 million dozen. Year-over-year growth in total (table plus hatching) production is now expected at 2.2 and 2.7 percent for the third and fourth quarters.

## Egg production growth slightly lower in July

Year-over-year growth of table egg production



Source: Economic Research Service calculations using data from U.S. Dept. of Agriculture, National Agricultural Statistics Service.

## Benchmark Egg Prices Stable

In August, midpoint prices for eggs at wholesale (large grade A eggs, New York) increased 17 cents from \$1.09 per dozen before declining to close the month at \$1.14. The downward move in prices before September contributed to a lower third-quarter price projection, down to \$1.24-1.27 per dozen. Notably, the average August price was within a standard deviation of the 5 years prior to avian influenza (2015) for the first year since then. Sustained production growth may support more stable prices than have occurred so far this year.

## Egg Exports Down, Imports Remain Low

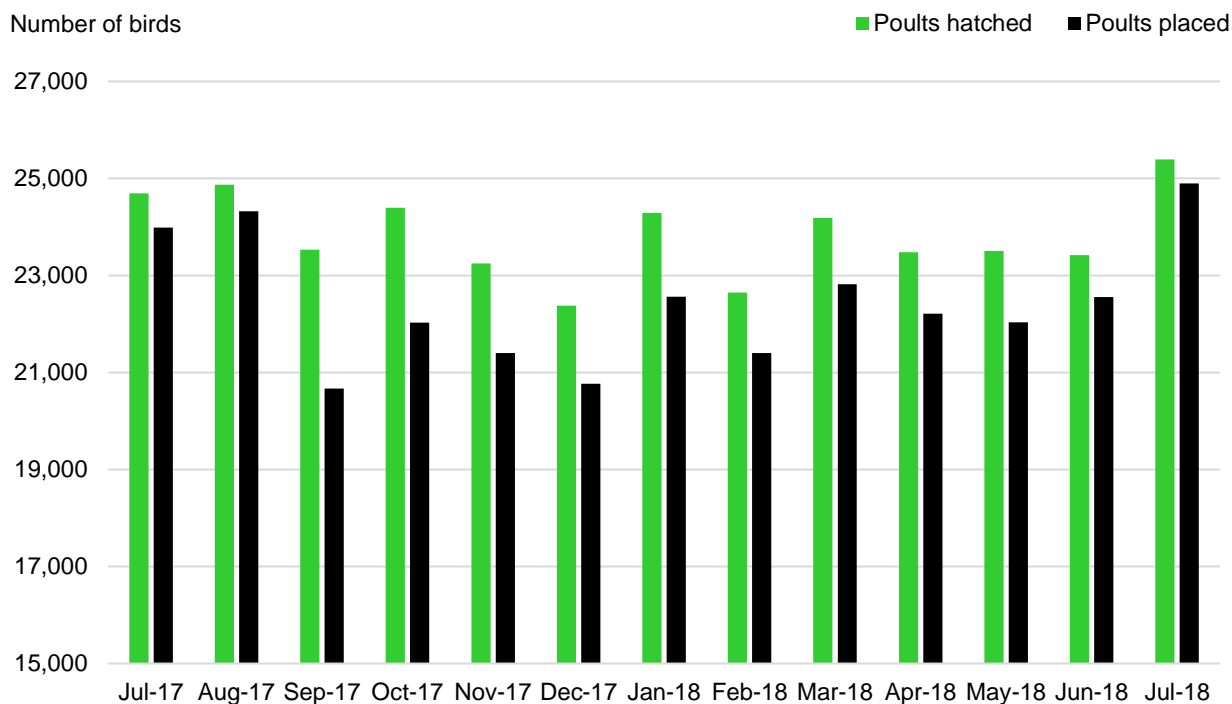
July exports of eggs and egg products were 25.8 million dozen (shell-egg equivalent), 2 percent below last year. Higher-than-expected prices in June and July, led by domestic prices above \$1.50 per dozen for much of July, may have dampened foreign buyer incentives. Fewer exports to Mexico (-1.0 million dozen), United Arab Emirates (-0.9 million dozen), and South Korea (-0.8 million dozen) accounted for most of the export decline. Export strength to Canada (+1.6 million dozen) and elsewhere only partly offset the declines in total exports.

U.S. imports of eggs and products in July remained relatively low at 1.6 million dozen, given the prevailing domestic price levels. Imports from Canada accounted for the largest portion at 0.7 million dozen. Imports from Thailand have been trending up and reached 0.4 million dozen, primarily of egg products.

## Turkey Production up Slightly in July but Outlook for Growth Remains Modest

July 2018 turkey production totaled 483 million pounds, a 3-percent increase from July 2017; however, this reflects an additional slaughter day relative to July 2017. On an average daily slaughter basis in July, production was down 2 percent compared with daily averages from a year earlier. Hatchery report data for July showed 3 and 4 percent growth in poults hatched and placed, respectively. Aside from a modest 1-percent increase in poults hatched in April 2018, both metrics had been negative compared with a year earlier since December 2017. Eggs in incubators on the first of the month remained down 3 percent in August, marking their ninth consecutive month in the negative. The data suggest that producers are working to contain growth in the face of diminishing returns brought about by wholesale prices that have remained far below recent historical averages. The 2018 turkey production forecast is lowered by 10 million pounds to 5.929 billion pounds, 1 percent below 2017. Turkey production for 2019 is increased by 15 million pounds to 5.985 billion pounds, a 1-percent increase over the 2018 forecast.

### Turkey poults placed and hatched



Source: USDA, Economic Research Service using USDA, National Agricultural Statistics Service Turkey Hatchery report.

## Whole Turkey Prices Remain Strikingly Flat in 2018

Wholesale whole-hen frozen turkey prices have been remarkably stable throughout 2018 after their nearly 2-year fall to prices last seen in 2010. The latest price data, covering the week ending September 14, 2018, shows frozen whole hen prices at 84 cents per pound, well below early-September prices for the past several years. The low wholesale prices indicate that turkey meat demand has not kept pace with production, further supported by higher than average stocks in cold storage. Turkey prices for 2018 are forecast to average \$0.80 to \$0.82 per pound for the year, at the

midpoint about 16 percent below prices in 2017. In 2019, turkey prices are expected to average \$0.81 to \$0.88. If realized, prices at the midpoint of the range would be 4 percent higher than expectations for 2018.

### U.S. Wholesale frozen hen turkey price

Dollars per pound



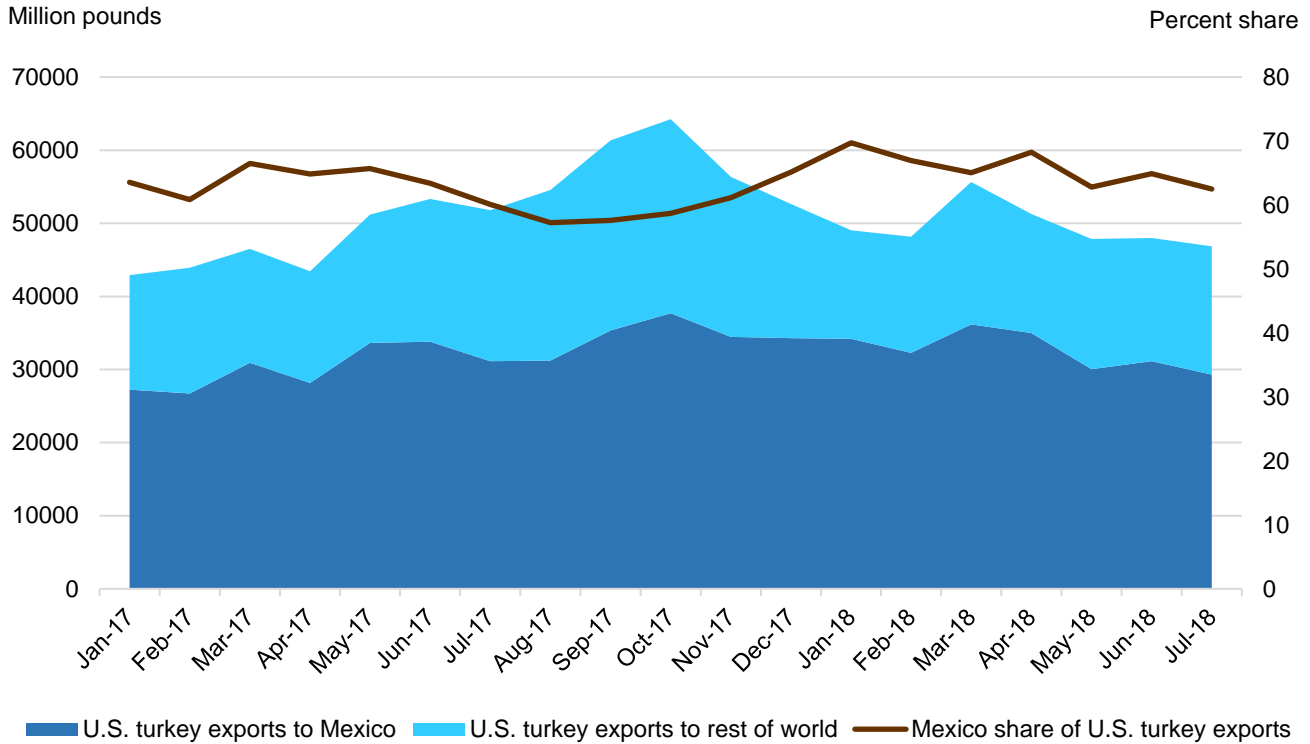
Note: Data are reported weekly through September 14, 2018.

Source: USDA, Economic Research Service Livestock and Meat Domestic data and USDA, Agricultural Marketing Service Market News reports.

## Turkey Exports Decrease Again in July

July 2018 turkey exports were 10 percent lower than a year earlier, totaling 47 million pounds. This marks the third consecutive month of year-over-year declines in turkey exports. Prior to the past 3 months, exports were seen as a lone bright spot given the sluggish domestic market. Exports had grown, often by double digits, in 8 consecutive months and 20 of the previous 21 months. July shipments to Mexico were down 6 percent from a year earlier. Mexico remains the largest destination for U.S. turkey shipments, with 29 million pounds shipped in July, or 63 percent of all U.S. shipments. Exports are expected to total 630 million pounds in 2018, a 1-percent increase over 2017. In 2019, turkey meat exports are expected to total 640 million pounds or a 2-percent increase over 2018.

## U.S. turkey exports to Mexico and the rest of the world



Source: USDA, Economic Research Service Livestock and Meat International Trade Data.

## Suggested Citation

*Livestock, Dairy, and Poultry Outlook*, LDP-M-291, U.S. Department of Agriculture, Economic Research Service, September 18, 2018

## U.S. red meat and poultry forecasts

	2015					2016					2017					2018					2019				
	I	II	III	IV	Annual	I	II	III	IV	Annual	I	II	III	IV	Annual	I	II	III	IV	Annual	I	II	Annual		
<b>Production, million lb</b>																									
Beef	5,665	5,856	6,068	6,109	23,698	5,938	6,187	6,472	6,625	25,221	6,303	6,407	6,736	6,742	26,187	6,465	6,724	<b>6,775</b>	<b>7,130</b>	<b>27,094</b>	<b>6,515</b>	<b>6,975</b>	<b>27,720</b>		
Pork	6,162	5,925	5,958	6,457	24,501	6,230	5,963	6,100	6,648	24,941	6,410	6,137	6,240	6,796	25,584	6,645	6,325	<b>6,480</b>	<b>7,225</b>	<b>26,675</b>	<b>6,890</b>	<b>6,690</b>	<b>27,875</b>		
Lamb and mutton	38	39	37	37	150	38	39	36	37	150	37	36	35	37	145	39	38	<b>36</b>	<b>37</b>	<b>150</b>	<b>36</b>	<b>38</b>	<b>146</b>		
Broilers	9,718	10,021	10,372	9,937	40,048	10,039	10,253	10,338	10,065	40,696	10,233	10,407	10,551	10,472	41,662	10,385	10,685	<b>10,850</b>	<b>10,700</b>	<b>42,620</b>	<b>10,600</b>	<b>10,870</b>	<b>43,420</b>		
Turkeys	1,429	1,389	1,351	1,458	5,627	1,435	1,520	1,515	1,511	5,981	1,488	1,482	1,479	1,533	5,981	1,452	1,477	<b>1,475</b>	<b>1,525</b>	<b>5,929</b>	<b>1,475</b>	<b>1,480</b>	<b>5,985</b>		
Total red meat & poultry	23,157	23,382	23,940	24,150	94,629	23,834	24,119	24,623	25,038	97,614	24,617	24,621	25,197	25,734	100,169	25,129	25,406	<b>25,777</b>	<b>26,773</b>	<b>103,084</b>	<b>25,661</b>	<b>26,211</b>	<b>105,763</b>		
Table eggs, mil. doz.	1,820	1,726	1,664	1,728	6,938	1,793	1,827	1,876	1,940	7,436	1,906	1,904	1,916	1,950	7,677	1,906	1,939	<b>1,960</b>	<b>2,010</b>	<b>7,815</b>	<b>1,955</b>	<b>1,975</b>	<b>7,970</b>		
<b>Per capita disappearance, retail lb 1/</b>																									
Beef	13.1	13.6	13.9	13.3	54.0	13.6	13.9	14.0	14.0	55.5	14.0	14.2	14.4	14.3	56.9	13.9	14.4	<b>14.3</b>	<b>14.9</b>	<b>57.6</b>	<b>14.0</b>	<b>15.0</b>	<b>58.6</b>		
Pork	12.2	11.8	12.1	13.6	49.7	12.6	11.8	12.1	13.5	50.1	12.4	11.8	12.4	13.5	50.1	12.5	12.1	<b>12.8</b>	<b>14.1</b>	<b>51.5</b>	<b>12.9</b>	<b>12.8</b>	<b>53.6</b>		
Lamb and mutton	0.2	0.3	0.2	0.3	1.0	0.3	0.3	0.2	0.3	1.0	0.3	0.3	0.2	0.3	1.1	0.3	0.3	<b>0.2</b>	<b>0.3</b>	<b>1.1</b>	<b>0.3</b>	<b>0.3</b>	<b>1.1</b>		
Broilers	21.4	22.1	23.3	22.1	89.0	22.5	22.7	22.7	21.8	89.7	22.4	22.9	23.2	22.4	90.8	22.6	23.3	<b>23.6</b>	<b>23.2</b>	<b>92.7</b>	<b>22.9</b>	<b>23.5</b>	<b>93.7</b>		
Turkeys	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	5.0	16.4	3.5	3.8	<b>4.0</b>	<b>4.9</b>	<b>16.2</b>	<b>3.7</b>	<b>3.6</b>	<b>16.2</b>		
Total red meat & poultry	50.8	51.8	53.8	54.5	211.0	52.9	53.0	53.7	54.8	214.4	53.2	53.2	54.6	55.8	216.8	53.2	54.3	<b>55.3</b>	<b>57.8</b>	<b>220.7</b>	<b>54.2</b>	<b>55.6</b>	<b>224.8</b>		
Eggs, number	65.6	63.0	61.5	65.6	255.8	67.4	66.3	67.3	70.6	271.6	68.5	68.6	69.3	69.9	276.3	68.2	69.0	<b>69.1</b>	<b>71.4</b>	<b>277.7</b>	<b>69.3</b>	<b>69.1</b>	<b>280.7</b>		
<b>Market prices</b>																									
Choice steers, 5-area Direct, \$/cwt	162.43	158.11	144.22	127.71	148.12	134.81	127.68	113.26	107.69	120.86	122.96	132.76	112.46	117.88	121.52	125.60	116.72	<b>108-111</b>	<b>108-114</b>	<b>115-117</b>	<b>116-126</b>	<b>118-128</b>	<b>113-122</b>		
Feeder steers, Ok City, \$/cwt	210.31	219.65	208.11	173.59	202.92	155.83	146.49	140.66	128.30	142.82	129.56	147.75	148.12	154.88	145.08	146.29	143.05	<b>148-151</b>	<b>144-150</b>	<b>145-147</b>	<b>137-147</b>	<b>143-153</b>	<b>141-150</b>		
Cutter Cows, National L.E., \$/cwt	107.61	109.50	103.34	77.80	99.56	73.50	75.87	73.16	57.75	70.07	62.63	69.55	69.78	58.68	65.16	61.60	61.32	<b>57-60</b>	<b>53-59</b>	<b>58-60</b>	<b>54-64</b>	<b>57-67</b>	<b>55-64</b>		
Choice slaughter lambs, St Joseph, \$/cwt	149.23	146.04	156.34	150.48	150.52	136.76	139.35	162.47	142.71	145.32	142.34	167.94	172.40	136.92	154.90	136.83	154.86	<b>149-152</b>	<b>137-143</b>	<b>145-147</b>	<b>143-153</b>	<b>150-160</b>	<b>149-158</b>		
Nat'l base cost, 51-52 % lean, live equivalent, \$/cwt	48.47	53.20	54.59	44.66	50.23	44.63	53.71	49.26	37.02	46.16	49.73	51.70	55.59	44.89	50.48	49.12	47.91	<b>43-44</b>	<b>31-33</b>	<b>43-44</b>	<b>36-38</b>	<b>41-45</b>	<b>39-42</b>		
Broilers, national composite, cents/lb	97.0	104.2	83.7	77.2	90.5	84.6	93.0	81.7	78.0	84.3	88.5	104.7	94.9	86.1	93.5	95.7	115.1	<b>93-94</b>	<b>82-86</b>	<b>96-98</b>	<b>90-98</b>	<b>100-108</b>	<b>92-100</b>		
Turkeys, national, cents/lb	99.6	108.5	126.4	130.1	116.2	114.7	116.5	120.7	116.6	117.1	100.4	99.1	96.9	88.0	96.1	79.4	79.6	<b>80-81</b>	<b>83-87</b>	<b>80-82</b>	<b>74-80</b>	<b>79-85</b>	<b>81-88</b>		
Eggs, New York, cents/doz.	146.9	170.3	235.7	174.1	181.8	121.5	67.9	71.6	81.7	85.7	80.0	74.7	102.1	147.0	100.9	179.6	124.4	<b>124-127</b>	<b>132-138</b>	<b>140-142</b>	<b>115-125</b>	<b>110-120</b>	<b>119-129</b>		
<b>U.S. trade, million lb, carcass wt. equivalent</b>																									
Beef & veal exports	523	607	542	595	2,267	535	621	660	740	2,557	653	680	746	781	2,860	730	799	<b>815</b>	<b>820</b>	<b>3,164</b>	<b>770</b>	<b>805</b>	<b>3,245</b>		
Beef & veal imports	877	989	889	613	3,368	792	831	751	638	3,012	700	812	814	668	2,993	722	805	<b>830</b>	<b>680</b>	<b>3,037</b>	<b>750</b>	<b>840</b>	<b>3,140</b>		
Lamb and mutton imports	53	56	46	59	214	68	55	41	52	216	80	58	57	57	252	80	66	<b>60</b>	<b>62</b>	<b>268</b>	<b>82</b>	<b>69</b>	<b>279</b>		
Pork exports	1,224	1,339	1,173	1,274	5,010	1,229	1,317	1,235	1,457	5,239	1,432	1,425	1,230	1,544	5,632	1,516	1,518	<b>1,300</b>	<b>1,655</b>	<b>5,989</b>	<b>1,550</b>	<b>1,500</b>	<b>6,115</b>		
Pork imports	279	266	270	300	1,116	293	257	266	275	1,091	264	281	283	287	1,116	279	270	<b>270</b>	<b>280</b>	<b>1,099</b>	<b>270</b>	<b>265</b>	<b>1,075</b>		
Broiler exports	1,624	1,713	1,487	1,496	6,321	1,585	1,605	1,734	1,721	6,645	1,720	1,622	1,661	1,788	6,791	1,708	1,701	<b>1,740</b>	<b>1,720</b>	<b>6,869</b>	<b>1,750</b>	<b>1,745</b>	<b>7,045</b>		
Turkey exports	148	123	125	132	529	116	141	160	153	569	133	148	168	173	622	153	147	<b>160</b>	<b>170</b>	<b>630</b>	<b>145</b>	<b>155</b>	<b>640</b>		
Live swine imports (thousand head)	1,309	1,541	1,371	1,519	5,740	1,468	1,406	1,371	1,413	5,657	1,449	1,458	1,296	1,394	5,597	1,358	1,350	<b>1,275</b>	<b>1,400</b>	<b>5,383</b>	<b>1,350</b>	<b>1,350</b>	<b>5,400</b>		

Note: Forecasts are in bold.

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.

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

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Updated 9/14/2018

## Dairy Forecasts

	2017			2018					2019		
	III	IV	Annual	I	II	III	IV	Annual	I	II	Annual
Milk cows (thousands)	9,402	9,398	9,392	9,406	9,403	9,395	9,395	9,400	9,400	9,405	9,405
Milk per cow (pounds)	5,687	5,649	22,941	5,780	5,937	5,730	5,725	23,175	5,855	6,030	23,495
<b>Milk production (billion pounds)</b>	<b>53.5</b>	<b>53.1</b>	<b>215.5</b>	<b>54.4</b>	<b>55.8</b>	<b>53.8</b>	<b>53.8</b>	<b>217.8</b>	<b>55.0</b>	<b>56.7</b>	<b>221.0</b>
Farm use	0.2	0.2	1.0	0.2	0.2	0.2	0.2	1.0	0.2	0.2	1.0
Milk marketings	53.2	52.8	214.5	54.1	55.6	53.6	53.5	216.8	54.8	56.5	220.0
<b>Milk-fat (billion pounds milk equiv.)</b>											
Milk marketings	53.2	52.8	214.5	54.1	55.6	53.6	53.5	216.8	54.8	56.5	220.0
Beginning commercial stocks	17.8	16.2	12.7	13.4	16.4	19.1	16.5	13.4	13.5	16.1	13.5
Imports	1.5	1.6	6.0	1.2	1.6	1.6	1.7	6.2	1.4	1.5	6.0
Total supply	72.5	70.6	233.2	68.8	73.5	74.3	71.8	236.5	69.6	74.0	239.5
Commercial exports	2.3	2.4	9.2	2.4	3.0	2.6	2.4	10.3	2.3	2.7	9.8
Ending commercial stocks	16.2	13.4	13.4	16.4	19.1	16.5	13.5	13.5	16.1	18.0	12.5
Commodity Credit Corporation donations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Domestic commercial use	54.1	54.8	210.5	50.0	51.5	55.2	55.9	212.6	51.1	53.2	216.9
<b>Skim solids (billion pounds milk equiv.)</b>											
Milk marketings	53.2	52.8	214.5	54.1	55.6	53.6	53.5	216.8	54.8	56.5	220.0
Beginning commercial stocks	11.6	12.1	9.5	11.8	11.4	11.5	10.7	11.8	11.0	11.5	11.0
Imports	1.4	1.5	6.1	1.4	1.4	1.4	1.5	5.7	1.4	1.3	5.6
Total supply	66.2	66.5	230.1	67.3	68.4	66.5	65.7	234.3	67.2	69.3	236.5
Commercial exports	9.7	11.0	40.7	11.5	12.5	10.5	10.2	44.7	10.8	11.6	44.1
Ending commercial stocks	12.1	11.8	11.8	11.4	11.5	10.7	11.0	11.0	11.5	12.5	10.8
Commodity Credit Corporation donations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Domestic commercial use	44.4	43.7	177.6	44.4	44.4	45.4	44.5	178.6	44.9	45.1	181.5
<b>Milk prices (dollars/cwt) <sup>1</sup></b>											
All milk	17.73	17.83	17.65	15.67	16.10	16.05	17.40	16.30	17.10	16.50	16.75
						-16.25	-17.90	-16.50	-17.90	-17.50	-17.75
Class III	16.13	16.34	16.17	13.87	14.95	14.90	15.65	14.85	15.45	15.10	15.20
						-15.10	-16.15	-15.05	-16.25	-16.10	-16.20
Class IV	16.36	14.12	15.16	13.01	14.32	14.35	14.45	14.00	14.50	14.40	14.30
						-14.65	-15.05	-14.30	-15.40	-15.50	-15.40
<b>Product prices (dollars/pound) <sup>2</sup></b>											
Cheddar cheese	1.623	1.712	1.634	1.515	1.608	1.555	1.610	1.570	1.590	1.580	1.590
						-1.575	-1.660	-1.590	-1.670	-1.680	-1.690
Dry whey	0.434	0.347	0.444	0.260	0.280	0.360	0.390	0.320	0.385	0.345	0.350
						-0.380	-0.420	-0.340	-0.415	-0.375	-0.380
Butter	2.597	2.295	2.330	2.161	2.320	2.255	2.165	2.220	2.175	2.205	2.205
						-2.295	-2.245	-2.260	-2.285	-2.335	-2.335
Nonfat dry milk	0.874	0.763	0.867	0.700	0.774	0.810	0.860	0.785	0.860	0.835	0.825
						-0.830	-0.900	-0.805	-0.920	-0.905	-0.895

Totals may not add due to rounding.

<sup>1</sup> Simple averages of monthly prices. May not match reported annual averages.

<sup>2</sup> 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*.

Sources: USDA, National Agricultural Statistics Service; USDA, Agricultural Marketing Service; USDA, Foreign Agricultural Service; and USDA, World Agricultural Outlook Board.

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Published by USDA, Economic Research Service, in *Livestock, Dairy, and Poultry Outlook*.