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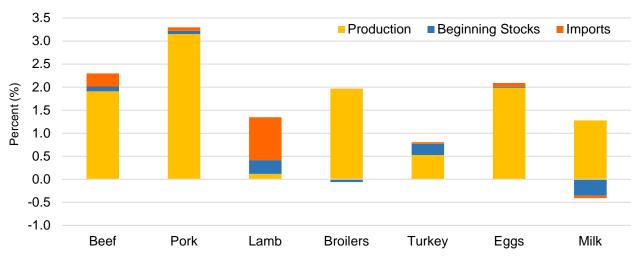
Livestock, Dairy, and Poultry Outlook

What Is Driving 2019 Supply Growth of Red Meats, Poultry, Eggs, and Milk?

Kim Ha

In the context of the World Agricultural Supply and Demand Estimates, domestic supply is comprised of three components: production, beginning stocks, and imports. U.S. supply of red meats, poultry, eggs, and milk is forecast to grow in 2019 as follows: beef (+2.3 percent), pork (+3.3 percent), lamb (+1.3 percent), broilers (+1.9 percent), turkey (+0.8 percent), eggs¹ (+2.1 percent), and milk² (+0.9 percent). What is driving projected 2019 supply growth? The chart below disaggregates the percentage change in supply for each livestock commodity into its three parts. As can be seen, 2019 supply growth will be largely driven by expected gains in production, particularly for beef, pork, broilers, turkey, eggs, and milk. Increased imports are likely to be an important factor in the expanded supply of lamb as well as to contribute to the increased supply of beef. Larger beginning stock volumes for lamb and turkey are expected to contribute to supply-growth expectations for both commodities. Meanwhile, 2019 beginning stocks of milk are projected to be lower than those of 2018.

Projected 2019 year-over-year (YOY) percentage change in supply* of major U.S. livestock commodities, disaggregated by production, beginning stocks, and imports



*YOY percentage change in supply is equal to the sum of all three components. For example, 2019 broiler supply is forecast to increase by 1.9 percent. Of that growth, broiler production is expected to contribute almost 2 percentage points, beginning stocks about -0.1 percentage points, and imports roughly 0 percentage points.

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

¹ Includes table and hatching eggs

² Milk-fat milk-equivalent basis

Beef/Cattle: Cattle slaughter remains robust heading into the summer months. However, the 2018 beef production forecast was reduced slightly to 27.1 billion pounds on lighter than expected dressed weights. Conversely, the forecast for 2018 beef exports was raised on greater demand from Asia, and the import forecast was raised on shipments from Oceania.

Dairy: Dairy commercial exports were high in April, reaching a monthly record of 4.481 billion pounds on a skim-solids milk-equivalent basis. On a milk-fat milk-equivalent basis, April commercial exports were 1.060 billion pounds, the highest level since July 2014. Although new tariffs imposed by Mexico will hinder U.S. cheese exports to some extent, dairy exports overall are expected to remain robust for the remainder of 2018 and throughout 2019. Milk production forecasts have been lowered due to lower expectations of milk production per cow. With higher expected exports and lower expected milk production, the 2018 all milk-price forecast has been raised to \$16.60-\$17.00/cwt for 2018, an increase from \$16.20-\$16.70 forecast last month. The 2019 all-milk price forecast has been raised to \$16.70-\$17.70/cwt, an increase from \$16.25-\$17.65 forecast last month.

Pork/Hogs: Although hog prices remained below a year earlier in May and early June, with May packer margins trailing those of a year ago by almost 29 percent, slower processor demand for hogs, soft domestic demand for pork, and price adjustments to Mexican tariffs will weigh on hog prices in the second half of 2018. Third-quarter hog prices are expected to average 19 percent below a year earlier. Fourth-quarter prices will likely average almost 17 percent below prices in the same period of 2017.

Sheep/Lamb: Choice/Prime Slaughter lamb prices at St. Joseph, Missouri in May jumped more than \$6/cwt over April levels to \$155.63. Prices are expected to strengthen even further in June due in large part to the tight supplies of slaughter animals heading into the summer months. As a result, second-quarter 2018 Choice/Prime Slaughter lamb prices at St. Joseph are forecast at \$153-\$156/cwt, more than \$17/cwt above first quarter levels at the midpoint but over \$13/cwt below the same period last year. Prices through the remainder of 2018 were raised on continued tight supplies.

Poultry/Eggs: Broiler and table egg production forecasts were raised for 2018 on recent data, although just marginally for eggs. Broilers had an uptick in hatchery data indicators as well as strong gains in bird weights. Egg stock projections were lowered for 2018 and 2019 on recent trends. The egg price projection for second quarter 2018 was reduced on recent price data similar to pre-2015 levels. Turkey production was raised slightly on stronger than expected April production. Turkey trade was revised upward as exports to Mexico remain strong.

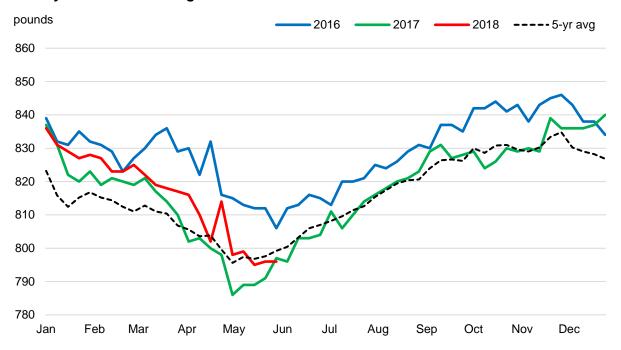
Cattle / Beef

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Beef Production Revised Lower on Lighter Dressed Weights

According to the latest NASS *Livestock Slaughter* report, commercial production for April 2018 was up 7.8 percent from a year ago to 2.1 billion pounds, pushing year-to-date production levels up 3.8 percent to 8.6 billion pounds. Packers slaughtered 2.6 million head of cattle, 7 percent above April 2017, but the increase in part reflects 1 more weekday of slaughter in April this year. However, the report also indicated that the average cattle dressed weight dropped 13 pounds from March to April to 806 pounds, a 1.6-percent decline. This is a similar month-to-month percentage drop for the same period in 2016 and 2017, but it is steeper than the 5-year average.

Weekly cattle dressed weights



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

The AMS report of *Actual Slaughter Under Federal Inspection* (SJ_LS 711) for the week ending June 2 indicates cattle dressed weights have continued to fall seasonally (see chart above) to 1 pound below the same week last year. However, dressed weights typically bottom out around this time of year. Lighter dressed weights are expected to more than offset second-quarter increased slaughter of steers, heifers, and cows. The forecast for 2018 production in the second half of this year was reduced slightly on lighter anticipated weights. As a result, this month's forecast for 2018 beef production is 27.1 billion pounds, down 90 million pounds from last month. The forecast for 2019 production was left unchanged from last month.

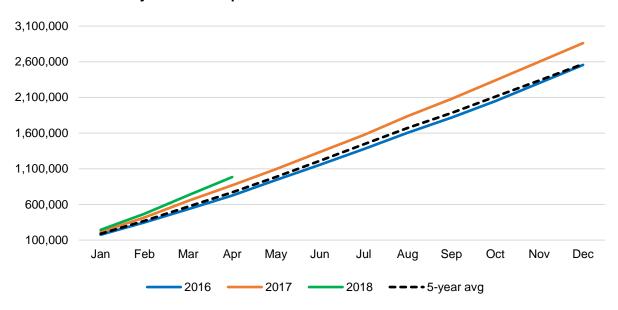
Fed Cattle Prices Support Strong Packer Margins

The weekly average fed steer price in the 5-area marketing region (Texas/Oklahoma/New Mexico; Kansas; Nebraska; Colorado; Iowa/Minnesota) likely reached a second-quarter peak of \$124.81 per hundredweight (cwt) for the week ending May 6. During that week, the price was nearly \$20 above the asking price of the June Live Cattle contract. Although the spread narrowed during the month, the prospect of lower prices during June likely influenced feedlot operations to promptly market their cattle. In turn, it likely allowed packers to be price setters. For the week ending June 10, fed steer prices were \$114.66/cwt, up \$4 from the previous week, but down more than \$10 below the first week of May. Combined with firm beef demand, the drop in prices has fueled record margins for packers. These very strong margins are likely supporting packer willingness to slaughter larger numbers of cattle. According to the AMS report of *Estimated Weekly Meat Production Under Federal Inspection* for the week ending June 9, the number of cattle slaughtered to date was 14.1 million head, up 3.1 percent above last year. The second-quarter price forecast for fed steers is \$116.00 - \$119.00/cwt. Price forecasts for third and fourth quarters in 2018 and for all of 2019 were left unchanged.

Beef Exports Strong Through April

Beef exports had a strong showing in April as exports were 16.1 percent above last year at 254 million pounds. It was the largest monthly year-over-year percentage increase to date this year, supported mainly by higher exports to South Korea (+63.1 percent), Mexico (+30.6 percent), Taiwan (+19.0 percent), Canada (+11.1 percent), and Japan (+8.8 percent). Hong Kong remains a strong destination despite U.S. exports having dropped 5.7 percent year over year in April. Year to date, exports to Hong Kong remain 22.2 percent above a year ago. Based on export sales reports through May, overseas demand remains strong. The continued demand by markets in Asia and North America has helped drive increased cumulative monthly U.S. exports (see chart below). As a result, the 2018 beef export forecast was raised in the second quarter by 15 million pounds for a full-year total of 3.05 billion pounds.

Cumulative monthly U.S. beef exports



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

During April, U.S. beef imports were down 5.8 percent from a year earlier, mainly on fewer shipments from Brazil, Mexico, and Australia. However, from recent import data from AMS, there would appear to be stronger than expected U.S. demand for lean meat from Oceania and North and Central America. As a result, the import forecast was revised higher by 10 million pounds in each of the second and third quarters for a full-year total of 3.052 billion pounds. The forecasts for 2019 beef exports and imports were left unchanged from last month.

Dairy

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Recent Developments in Dairy Markets

From the week ending May 5 to the week ending June 9, all wholesale dairy product prices reported in the USDA *National Dairy Products Sales Report* (NDPSR) increased. Cheddar cheese 500-pound barrels had the largest increase at 8.4 cents per pound. However, the weekly-average spot price for 500-pound barrels of cheddar cheese on the Chicago Mercantile Exchange (CME) for the trading week ending June 8 was \$1.5225 per pound, significantly less than the most recent NDPSR price. For 40-pound blocks, the CME price for the trading week ending June 8 was \$1.5965, also lower than the most recent NSPSR price.

Dairy wholesale product prices (dollars per pound)

	For the we		
	May 5	June 9	Change
Butter	2.3379	2.3784	0.0405
Cheddar cheese			
40-pound blocks	1.6400	1.6525	0.0125
500-pound barrels 1	1.5147	1.5983	0.0836
Nonfat dry milk	0.7613	0.8277	0.0664
Dry whey	0.2690	0.2981	0.0291

¹ Adjusted to 38-percent moisture.

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

U.S. dairy product prices appear to be competitive with foreign export prices. USDA *Dairy Market News* reported that in May, Oceania and Western Europe export prices averaged \$2.61 and \$3.20 per pound for butter, respectively, and \$0.94 and \$0.80 for skim milk powder (SMP), respectively. The Oceania export price for cheddar cheese was \$1.86 per pound in May, and the Western Europe dry whey export price was \$0.41 per pound.

USDA National Agricultural Statistics Service (NASS) reported U.S. milk production in April to be 18.435 billion pounds, only 0.6 percent above April 2017. Milk cows numbered 9.400 million head in April, 2,000 less than March. NASS is now showing that milk cow numbers declined for 2 consecutive months. Dairy cow slaughter rates continue to exceed those of last year. While the all-milk price rose from a low point of \$15.30/cwt in February to \$15.60 and \$15.80 in March and April, respectively, feed prices have proportionally risen to a greater extent. The milk-feed ratio fell to 1.9 in April, the lowest level for the month since 2013.

Year-over-year growth in milk production has also slowed for the European Union (EU). In March, EU milk production was only 0.4 percent above March 2017.² This followed year-over-year growth in January and February of 4.1 percent and 2.6 percent, respectively. In the first quarter of 2018, New

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¹ Foreign export prices are midpoints of price ranges reported free on board (f.o.b.) port of the exporting country; they are reported voluntarily and reflect prices for products that may be shipped in subsequent months.

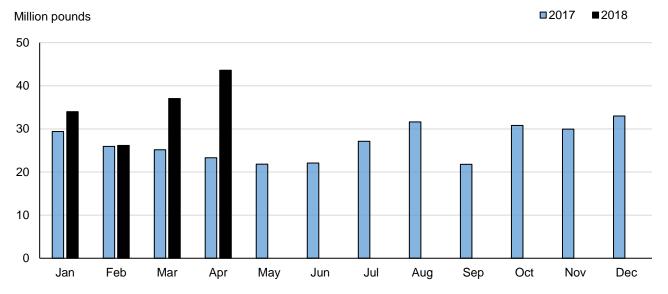
² EU milk production data are not yet available for April.

Zealand's milk production was below the first quarter of 2017. However, in April, New Zealand production was 3.1 percent higher than April 2017.

In July 2017, the bacterial infection *Mycoplasma bovis* was found in cattle on New Zealand's South Island. The infection can cause mastitis that does not respond to treatment, pneumonia, arthritis, and late-term abortions in cattle. The disease does not present a food safety risk. Over the last year, the New Zealand Government has taken steps to control the disease, but it has continued to be a problem. On May 28 of this year, the Government and farming sector bodies announced that an attempt will be made to eradicate *Mycoplasma bovis* from New Zealand. In addition to the cull of about 26,000 cows underway already, it is estimated that 126,000 cattle, including beef and dairy cattle, from about 190 farms will need to be culled from infected farms, future infected farms, and some high-risk farms under movement controls. The Government will make compensation available to farmers affected by the action to control the disease.

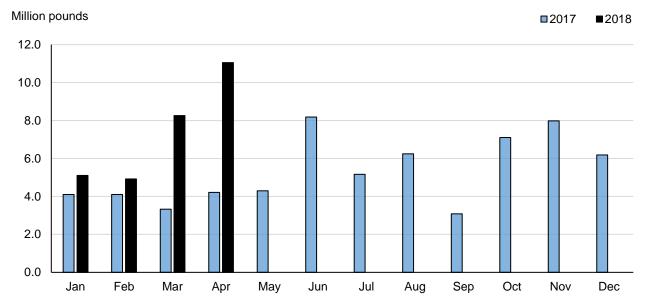
U.S. dairy commercial exports were robust in April, reaching 4.481 billion pounds on a skim-solids milk-equivalent basis, beating last month's record of 4.255 billion pounds. On a milk-fat milk-equivalent basis exports continued to climb, with April commercial exports reaching 1.060 billion pounds, the highest level since July 2014. Notably, exports of whey protein concentrate (WPC) and lactose were 43.6 million and 83.7 million pounds, respectively, both setting records for a second consecutive month. April exports of nonfat dry milk and skim milk powder (NDM/SMP) were 166.8 million pounds, the highest level since October 2016. Exports of butterfat products increased to 11.0 million pounds, the highest level since June 2014. Exports of cheese in April were 72.5 million pounds, 2.2 million less than March but 13.2 million more than April 2017.

U.S. exports of whey protein concentrate



Source: U.S. Commerce Department, Bureau of the Census.

U.S. exports of butterfat products¹



¹ Butterfat products include butter, other fats and oils derived from milk, and dairy spreads (Harmonized Schedule number 0405. Source: U.S. Commerce Department, Bureau of the Census.

On June 5, 2018, Mexico published a list of tariffs on U.S. product imports in response to tariffs recently imposed by the United States on steel and aluminum. The list includes several types of agricultural products, including cheese. With publication of the list, Mexico has imposed tariffs on cheese of 10 or 15 percent, depending on the cheese type, and the tariffs will be increased to 20 and 25 percent on July 5. In 2017, the listed cheeses made up more than 99 percent of the volume of cheeses exported from the United States to Mexico. Mexico is the largest export U.S. destination for cheese. In 2017, 28.3 percent of U.S. cheese exports went to Mexico, accounting for 1.7 percent of U.S. cheese production. According to Mexico's statistics as reported in the Global Trade Atlas, 75.1 percent of Mexico's 2017 cheese imports came from the United States.

U.S. cheese production, exports to the world and Mexico

(quantities in millions of pounds)

		Exp	oorts to world	Exports to Mexico								
			Percent of cheese	Exports to	Percent of cheese	Percent of						
	Production quantity	Quantity	production	Mexico	production	cheese exports						
2017	12,659	752	5.9	213	1.7	28.3						
2018 Jan-Apr	4,259	269	6.3	73	1.7	27.1						

Sources: U.S. Dept. of Agriculture: National Agricultural Statistics Service, Foreign Agricultural Service, and Economic Research Service calculations; and U.S. Dept. of Commerce, Bureau of the Census.

In response to U.S. tariffs on steel and aluminum, Canada has published a notice of intent to impose tariffs on a possible wide range of products, effective July 1. The only dairy product on the list is yogurt, which could have a surtax of 10 percent. Canada requested comments concerning the products listed, due by June 15. The United States exported 1.7 million pounds of yogurt to Canada in 2017.

April imports on a milk-fat basis were 0.516 billion pounds, 100 million pounds more than March and 34 million more than April 2017. Notably, both imports and exports of butterfat products increased (butter, other fats and oils derived from milk, and dairy spreads). Imports of butterfat products were 11 million

pounds in April, 3 million more than March and 4 million more than April 2017. Imports on a skim-solids basis were 0.444 billion pounds, 35 million less than March and 42 million less than April 2017.

On a milk-fat basis, April ending stocks were 17.4 billion pounds, 1.0 billion more than March this year and 0.5 billion more than April 2017. Notably, April butter stocks were 307 million pounds, 15 million pounds more than April 2017. On a skim-solids basis, April ending stocks were 11.1 billion pounds, 0.2 billion more than April 2017. Domestic demand appears to have been relatively weak this year. For January through April, domestic commercial disappearance grew only by 0.3 percent on a milk-fat basis, and it fell by 0.1 percent on a skim-solids basis.

On June 7, USDA announced that California dairy producers had voted to approve a Federal Milk Marketing Order (FMMO) for California. Affected parties must comply with all provisions beginning November 1, 2018. The proposed California FMMO would replace the current California State Order (CSO) classified price formulas with uniform end-product pricing formulas currently used in the 10 existing FMMOs. According to the economic analysis provided by USDA Agricultural Marketing Service (AMS), regulated minimum prices to be received by farmers would likely be greater than CSO minimum prices. However, pooling regulations under the proposed FMMO would allow handlers to elect not to pool milk used in manufacturing.

Outlook for Feed Prices

Feed price estimates for 2017/18 for corn and soybean meal are unchanged from last month at \$3.25-\$3.55 per bushel and \$360 per short ton, respectively. The alfalfa hay price in April was \$183 per short ton, \$17 higher than March and \$33 higher than April of last year. The average corn price for 2018/19 is projected to be \$3.40-\$4.40 per bushel, 10 cents higher than last month's forecast at the midpoint. The 2018/19 average soybean meal price is projected at \$330-\$370 per short ton, unchanged from last month's forecast. For more information, see the USDA Economic Research Service publication *Feed Price Outlook*.

Dairy Forecasts for 2018

The forecast for the size of the milking herd in 2018 has been lowered slightly to 9.405 million head, as cow numbers fell in April for the second straight month. Milk per cow is now forecast at 23,185 pounds for the year, 55 pounds lower than previously forecast, due to slow growth in April and higher expected feed prices. As a result of these changes, milk production for 2018 is projected 0.7 billion pounds lower than last month's forecast, at 218.0 billion pounds.

The 2018 import forecast on a milk-fat basis has been raised by 0.3 billion pounds to 5.8 billion, due to recent growth in imports of butterfat products. Mexico's tariffs on cheese from the United States are expected to have a negative impact on cheese exports. However, on a milk-fat basis, growth in exports of butterfat products and cheese exports to other countries is expected to more than offset the lost cheese exports to Mexico this year. Therefore, the 2018 export forecast for the year is 10.2 billion pounds on a milk-fat basis, 0.3 billion pounds higher than the last forecast. Ending stocks on a milk-fat basis are projected at 12.6 billion pounds, unchanged from the last forecast. Due to low domestic use in recent months and higher expected prices, the 2018 domestic use forecast on a milk-fat basis has been lowered 0.7 billion pounds to 213.5 billion.

Imports on a skim-solids basis are forecast at 5.6 billion pounds for 2018, 0.2 billion pounds lower than the last forecast, due to lower expected imports of milk protein products and other dairy products. Due to robust exports in April and expectations for the U.S. prices to remain competitive, the export forecast on a skim-solids basis has been raised 1.1 billion pounds to 46.2 billion. Ending stocks are now forecast at 10.4 billion pounds for the year as stocks fell in April and higher exports should result in

further drawdowns. Domestic use on a skim-solids basis is now projected at 177.9 billion pounds for 2018, 1.2 billion pounds lower than the previous forecast, due to higher prices for NDM and whey.

With lower milk production forecast, higher expected exports, and recent price strength, price forecasts have been raised for butter, nonfat dry milk, and dry whey to \$2.295-2.365, \$0.775-0.815, and \$0.295-\$0.315, respectively. The cheese price forecast is unchanged at the midpoint from last month's forecast, at \$1.605-\$1.645 per pound, as negative effects of Mexico's tariffs are expected to be offset by robust exports to other countries and competing uses for milk.

With a higher dry whey price, the 2018 Class III milk price forecast has been raised to \$15.05-\$15.45/cwt, 20 cents higher than last month's forecast at the midpoint of the range. With higher expected NDM and butter prices, the Class IV price forecast has been raised to \$14.30-\$14.80/cwt, 50 cents higher than last month's forecast at the midpoint of the range. The all milk price forecast for 2018 is \$16.60-\$17.00/cwt, an increase of 35 cents from the last forecast at the midpoint of the range.

Dairy Forecasts for 2019

The projected size of the milking herd for 2019 is 9.410 million head, unchanged from last month's projection. However, as higher feed prices are expected to carry over into next year, the milk per cow forecast has been lowered 40 pounds to 23,495 pounds. Due to the lower milk per cow forecast, milk production for 2019 is now forecast at 221.1 billion pounds, 0.4 billion pounds lower than last month's forecast.

On a milk-fat basis, the forecast for imports has been raised slightly to 5.6 billion pounds. Exports are expected 0.4 billion pounds lower than previously forecast, at 9.8 billion pounds, as slightly higher butterfat exports will not completely offset expected losses in cheese exports stemming from the Mexican tariffs. The ending stock forecast for the year is unchanged at 11.8 billion pounds. The 2019 domestic use forecast on a milk-fat basis has been increased by 0.1 billion pounds to 216.7 billion, representing growth of 1.5 percent from 2018.

The import forecast on a skim-solids basis has been lowered 0.2 billion pounds to 5.6 billion for the year. Exports on a skim-solids basis are now forecast at 45.6 billion pounds, an increase of 0.3 billion pounds from the last forecast, as growth in NDM/SMP and lactose exports should taper off somewhat. Ending stocks in 2019 are forecast slightly lower this month than last, at 10.7 billion pounds. Domestic use on a skim-solids basis is now forecast at 179.8 billion pounds, 1.3 billion pounds lower than previously forecast, mainly due to higher expected prices.

This month's forecasts account for the recently announced implementation of the California FMMO, which is expected to have product price impacts in 2019. According to an economic analysis by USDA AMS, the higher minimum milk prices to be paid by handlers manufacturing cheese and whey (Class III in the Federal order system) would result in less cheese production, contributing to higher cheese prices. As less cheese is produced, more milk would move into butter and nonfat dry milk production, lowering prices for those products. For California, the largest milk-producing State, milk prices received by dairy farmers are expected to be higher under the new FMMO than they have been under the CSO. In other regions, dairy farmers would receive either higher or lower prices depending on class utilization in the region. On average, the U.S. all-milk price would be higher.

With lower expectations for milk production and the effects of the California FMMO more than offsetting the effects of Mexican cheese tariffs, the cheese price forecast for 2019 has been raised to \$1.625-\$1.725 per pound. The dry whey price forecast has been raised to \$0.300-\$0.330 based on higher expected exports and effects of the California FMMO. The butter price forecast has been lowered slightly to \$2.210-\$2.340 per pound as higher exports of butterfat are more than offset by the effects of more butter production as a result of the California FMMO. The NDM price, however, has been raised

1 cent at the midpoint of the range to \$0.755-\$0.825, as the effects of strong export demand should outweigh higher NDM production as a result of the California FMMO.

The Class III milk price forecast has been raised to \$15.30-\$16.30 due to higher expected prices for cheese and dry whey. The Class IV milk price forecast has been raised to \$13.70-\$14.80/cwt as the higher expected NDM price forecast is expected to more than offset the lower butter price forecast. The all milk price forecast for 2019 has been raised 45 cents at the midpoint of the range to \$16.70-\$17.70/cwt.

Pork / Hogs

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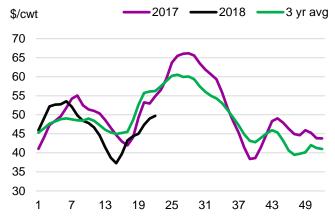
Turmoil and Adjustment Continues in the U.S. Pork Sector

The U.S. pork industry's efforts to adjust to expanded processing capacity continued in May. Slower than expected plant startups, relatively weak wholesale pork prices and lower margins have created a drag on aggregate processor demand for hogs, likely limiting seasonal increases in hog prices. Prices of May live equivalent 51-52 percent lean hogs averaged \$46.86/cwt, 7.1 percent below prices in May 2017. While year-over-year lower hog prices are typically good news for processors, May prices were not enough this year to offset sharply lower prices received for most pork products. With federally inspected May pork production expected to have been almost 2.2 billion pounds—over 3 percent above production in May 2017—the average wholesale pork carcass cutout for May was more than 10 percent lower than a year earlier. Processors' gross margins in May averaged about \$15/cwt, almost 29 percent lower than a year ago.

It is notable, however, that although hog prices from early May through the first week of June were year-over-year lower compared with the same period in 2017—due mainly to larger hog supplies—prices have increased more than 20 percent from May 2 through June 7. It is unclear whether this price increase is attributable to the effects of early summer heat on hog weights, or simply consistent with seasonal marketing/price dynamics. While the 20-percent increase in hog prices this year is roughly in line with the 3-year average price gain (2015-2017) between May 1 and June 7 of 19.5 percent, processors this year may have reduced weekly slaughter recently in an effort to keep gross margins from going negative, given weak wholesale demand for increased volumes of most pork cuts.

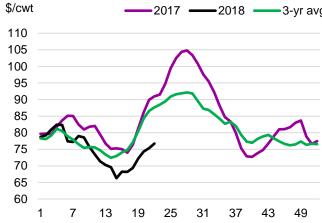
The *Quarterly Hogs and Pigs* report, to be released by USDA on June 28, will provide new information regarding hog inventory numbers as of June 1, 2018, and producer intentions regarding farrowings through the remainder of the year.

Weekly hog prices, 51-52 percent lean, live equivalent



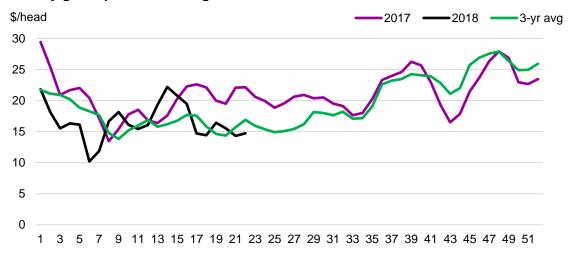
Source: Agricultural Marketing Service, USDA.

Wholesale pork carcass cutout



Source: Agricultural Marketing Service, USDA

Weekly gross processor margin



Source: Economic Reserarch Service, USDA.

The second-quarter hog price forecast was raised to \$46-\$47/cwt to reflect seasonally tighter hog supplies. The midpoint of this range places second-quarter prices 10 percent below prices a year earlier. Commercial pork production for the April-June quarter is expected to be about 6.4 billion pounds, 4 percent higher than a year earlier. Third-quarter production is forecast at 6.5 billion pounds, 4 percent above a year earlier. Hog prices in the third quarter are expected to average \$44-\$46/cwt, more than 19 percent lower than a year earlier. Fourth-quarter production is expected to be 7.2 billion pounds, almost 6 percent higher than a year earlier, with prices expected to average \$36-\$38/cwt, over 17 percent lower than the same period a year earlier.

Mexico Pushes April Exports to Record High

April pork exports were record high at almost 548 million pounds, propelled by the highest-ever shipments to Mexico and strong exports to South Korea. Export volumes to major U.S. pork export markets are summarized below.

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

	Country	Exports Apr. 2017 (mil. lbs)	Exports Apr. 2018 (mil. lbs)	Percent change (2018/2017)	Export share Apr. 2017 %	Export share Apr. 2018 %
	World	463	548	18.4		
1	Mexico	129	182	41.1	27.9	33.3
2	Japan	103	95	-7.8	22.3	17.3
3	South Korea	45	77	69.7	9.8	14.1
4	China/Hong Kong	56	52	-8.7	12.2	9.4
5	Canada	43	41	-4.7	9.3	7.5
6	Colombia	14	22	61.8	3.0	4.0
7	Australia	16	19	16.7	3.4	3.4
8	Dominican Republic	11	11	6.6	2.3	2.1
9	Philippines	8	11	31.4	1.7	1.9
10	Honduras	6	9	46.1	1.4	1.7

Source: USDA, Economic Research Service.

On June 5, 2018, the Government of Mexico imposed retaliatory tariffs on U.S. pork products that comprise the majority of U.S. pork exported to Mexico. Below are the applicable tariff lines, descriptions, volumes, and aggregate values imported by Mexico in 2017. Ten-percent duties are assessed on the value of products classified under the announced tariff codes, effective June 5, 2018. On July 5, 2018, the assessed tariff increases to 20 percent.

The forecast for second-quarter U.S. exports was increased by 75 million pounds to 1.5 billion pounds, on the strength of exports to Mexico, South Korea, and Central and South America. Total exports in 2018 are expected to be almost 6 billion pounds, 6.4 percent more than a year earlier. The forecast for 2019 was increased by 40 million pounds to 6.2 billion pounds, 3 percent above exports forecast for 2018. It is anticipated that the low relative prices expected to accompany increased U.S. pork production and strength in demand among important importing countries will provide strong incentives for all foreign buyers to purchase U.S pork.

Mexico: 2017 volume and value of tariff codes of U.S. pork, subject to retaliatory tariffs

Tariff code	Description	Volume	Value
		Mil. lbs	Mil. \$
020312	Chilled bone-in hams/shoulders	1,266	946.46
020329	Frozen other cuts	179.12	179.76
020319	Other chilled cuts	111.59	111
020322	Frozen bone-in hams/shoulders	6.80	6.75
1601	Sausages (excluding poultry)	41.72	97
160241	Prepared hams	5.51	12.78
160242	Other prepared hams	0.397	0.519
Total		1,612	\$1,354

Source: Global Trade Atlas.

Sheep / Lamb

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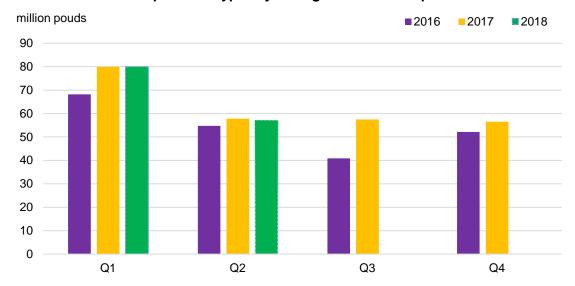
Lamb and Mutton Prices Strengthen in May

Choice/Prime Slaughter lamb prices at St. Joseph, Missouri in May jumped more than \$6/cwt over April levels to \$155.63. Prices are expected to strengthen even further in June due in large part to the tight supplies of slaughter animals heading into the summer months. As a result, second-quarter 2018 Choice/Prime Slaughter lamb prices at St. Joseph are forecast at \$153-\$156/cwt, more than \$17/cwt above first-quarter levels at the midpoint but over \$13/cwt below the same period last year. Prices through the remainder of 2018 were raised on continued tight supplies.

The lamb and mutton production forecasts remain unchanged from last month. Production for May 2018 is estimated to have been 11.8 million pounds, equaling May of last year. Second-quarter 2018 lamb and mutton production is forecast at 35 million pounds, about 2 percent below the same period in 2017. Typically, summer months are the culling season for sheep producers and the proportion of slaughter from culled ewes increases, unless there is a big push to increase retention.

Lamb and mutton imports have shown strength. First-quarter 2018 imports totaled 80 million pounds, equaling first-quarter 2017 levels. Imports have been typically strongest in the first quarter. Imports in April came in at 21 million pounds, nearly 4 percent above April 2017. The second-quarter 2018 import forecast remains unchanged from last month at 57 million pounds.

Lamb and mutton imports are typically strongest in the first quarter



Source: USDA, Economic Research Service.

First-quarter 2018 exports totaled 1.3 million pounds, 9 percent below first quarter 2017. Exports for April totaled 427,808 pounds, 20 percent above the April 2017 levels. Exports for May and June are expected to show much improvement as we enter the culling season. Increased culling favors stronger exports as a significant proportion of exports, especially to Mexico is mutton (meat from ewes). Second-quarter 2018 exports are forecast at 2 million pounds.

Poultry

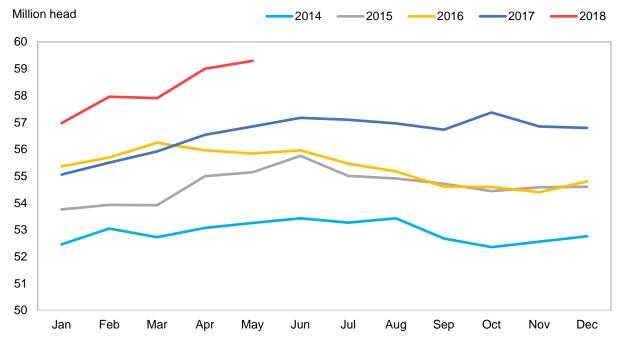
Sean Ramos, sean.ramos@ers.usda.gov, Kim Ha, kim.a.ha@ers.usda.gov, and Alex Melton, awmelton@ers.usda.gov

Broiler Production Forecast Raised for This Year

April broiler production was 3.5 billion pounds, about 2.3 percent higher than a year ago after adjusting for an additional slaughter day this year. Average live weights were up 1.5 percent from last year, accounting for the majority of the production growth. The number of chicks placed in meat-growing operations trended relatively strong in May, supported by a breeder inventory of over 59 million as of May 1 (see figure below). Strong broiler prices and relatively low numbers of eggs-hatched per breeder have provided incentives to expand breeder inventory and grow meat birds heavier. These indicators' strong performance and revised first-quarter production data contributed to an upward revision of the 2018 production projection to 42.450 billion pounds, 120 million pounds above the previous month's projection.

Strong growth in the broiler-breeder inventory

Inventory of broiler-type chickens for fertile egg production on the first of the month, 2014-to-date



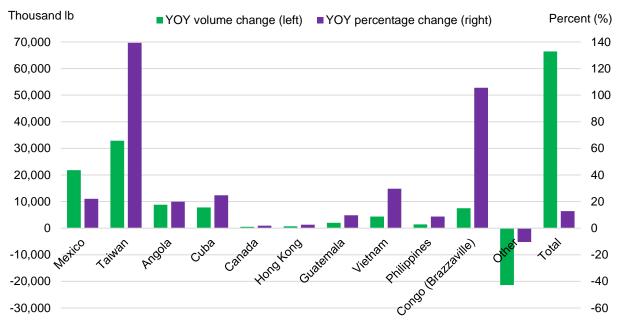
Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service.

Broiler Exports Show Strong Growth

Broiler exports in April were 583 million pounds, up 66 million pounds (13 percent) year over year (YOY). The United States' major broiler export markets (in terms of volume) all contributed to this sizable growth (see figure below). Most notable were Taiwan, Mexico, Angola, Cuba, and Congo. April shipments to Taiwan and Mexico were 56 million pounds (+139 percent over April 2017) and 121 million pounds (+22 percent YOY), respectively. Exports to Angola and Cuba were 53 million pounds (+20 percent YOY) and 39 million pounds (+25 percent YOY) of broiler shipments, respectively, while

Congo was shipped 15 million pounds (+106 percent YOY). Despite strong export volumes in April, expectations for the coming months—barring unforeseen changes—are on pace with 2018 forecasts, which remain unchanged.

Year-Over-Year (YOY) change in export volume, by country (April 2017/April 2018)



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

Broiler Prices Reach a High for 2018

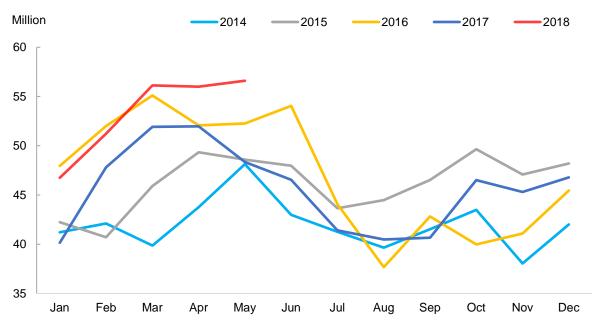
Continuing on an upward trend, weekly whole broiler (national composite) prices in May reached a year-to-date high above 120 cents per pound for the week ending June 1. In the beginning of May, weekly prices exhibited strong year-over-year growth (+15 percent) as well as week-over-week growth (+4.5 percent), but slowed to 4 percent and 0.5 percent, respectively, for the week ending June 1. Consistent with seasonal patterns, prices are expected to begin a gradual decrease that will continue into the next several months. The 2018 and 2019 forecasts remain unchanged.

Egg Production Expansion Proceeding

April table egg production reached 637 million dozen, about 1 percent higher than last year. The table egg layer inventory was up about 2 percent from a year earlier on May 1, while egg production per layer was 1 percent lower. Producers have reacted to strong egg price trends since about last September by placing more fertile eggs in incubators for hatching (see chart below). About 4 months after the chicks hatch, they typically enter the table egg laying flock. The last 4 months of data show 9 percent more layer chicks hatched than last year. As these chicks are integrated into laying flocks, some older layers will be retired.

The 2018 production projection was increased to 8.931 billion dozen to account for slightly more hatching egg production. Both the egg and broiler industries have been expanding layer inventories and increasing fertile egg production for this purpose.

Egg-type eggs in incubators for hatching, first of the month, 2014-2018



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

Egg and Egg Products Exports Up; Imports Remain Low

April exports of eggs and egg products were 30 million dozen (shell-egg equivalent), nearly 5 percent above last year. Export growth was led by 3.4 million dozen more eggs and products shipped to Canada, most of which were shell eggs. Exports to Japan were up 2.8 million dozen and to Hong Kong were up nearly 1 million dozen. Increased shipments to Japan were egg products, while those to Hong Kong were shell eggs. Substantially lower exports to United Arab Emirates and South Korea weighed down export growth, with those countries respectively down 2.6 million and 1.9 million dozen.

Imports of eggs and egg products to the United States in April were 1.2 million dozen, about 71 percent below last year, due almost entirely to the absence of imports from the Netherlands. The 2018 and 2019 import forecasts were reduced to 28 and 35 million dozen, respectively.

Stocks Trending Down for Egg Products

Stocks of egg products have been trending down, reaching 62 million dozen (shell-egg equivalent) as of April 30. Incentives to sell stocks have been strong, given strong egg price trends. Historically high stock levels prevailed after the egg industry recovered from avian influenza in 2015, but stocks have declined over 50 percent since February 2017. In the coming months, stock levels should begin to accumulate again as egg prices are expected to be moderate. The summer months typically have lower egg prices and the greatest stock increases. Projected stocks for the end of 2018 and 2019 were reduced to 90 million dozen for both years.

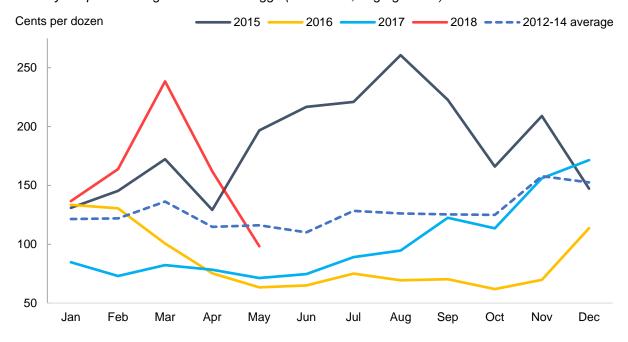
Egg Prices at Normal Seasonal Levels

Wholesale egg prices (large grade A eggs, New York) were stable in the second half of May after a sharp post-Easter decline. May's daily midpoint average of 98 cents per dozen concluded 5 months of

multiyear high prices and was fairly representative of the years 2012-2014 (see chart below). Prices prior to avian influenza (in 2015) were considerably less volatile than in the period since. Going forward, prices are expected to drift upwards and then increase more significantly in the fall due to normal seasonal trends. The second-quarter price projection was reduced to 118-121 cents per dozen, with 2018 projected to average 135-140 cents per dozen.

Recent egg price declines conclude 5 months of multiyear highs

Monthly midpoint average for New York eggs (Wholesale, large grade A)



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

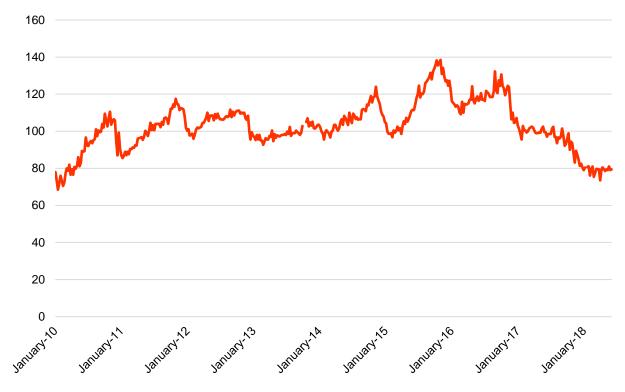
Turkey Production up in April but Outlook for Growth Remains Modest

April 2018 production totaled 482 million pounds, a 10-percent increase from April 2017 but just 5 percent up when viewed on a per-slaughter-day basis. The per day average increase in April was larger than any month since March 2017 (or September 2016 on a monthly basis). Hatchery report data for April were mostly flat relative to the same period in 2017, a modest break from 4 consecutive months of year-over-year declines in all categories. Eggs in incubators on the first of the month remained down slightly in May, marking their 6th consecutive month in the negative. The data suggest that producers are struggling to pull growth back 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 5.937 billion pounds, up 20 million pounds from last month and 1 percent below 2017. Turkey production for 2019 is unchanged at 5.97 billion pounds, a half-percent increase over the 2018 forecast.

Whole Turkey Prices Remain Below Historical Averages in 2018

U.S. Wholesale Whole Frozen Hen Turkey Price



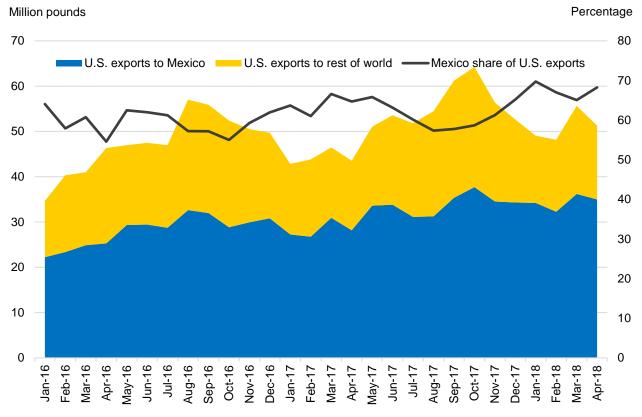


Source: USDA, Economic Research Service Livestock and Meat Domestic Data.

Wholesale whole-hen frozen turkey prices appear to have stabilized after their nearly 2-year fall to prices last seen in 2010. The latest price data, covering the week ending June 8 2018, shows frozen whole hen prices at 80 cents per pound, well below early-June 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 price forecasts for 2018 are expected to average \$0.81 to \$0.84 per pound for the year, at the midpoint about 14 percent below prices in 2017. In 2019, turkey prices are expected to average \$0.84 to \$0.91. If realized, prices at the midpoint of the range would be 6 percent higher than expectations for 2018.

Turkey Exports Increased Again in April

U.S. Monthly Turkey Meat Exports to Mexico and Rest of World



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

April 2018 turkey exports were 18 percent higher than a year earlier, totaling 51 million pounds. Mexico remains the largest destination for U.S. turkey shipments, with 35 million pounds shipped in April, or 68 percent of all U.S. shipments. As domestic prices continue below historical levels and cold storage stocks remain high, the export market is expected to remain an attractive destination for producers. Exports are expected to grow further in 2018 to 663 million pounds, a 7-percent increase over 2017. In 2019, turkey meat exports are expected to total 655 million pounds, or a 1-percent decline from the strong export totals in 2018.

Suggested Citation

Livestock, Dairy, and Poultry Outlook, LDP-M-288, U.S. Department of Agriculture, Economic Research Service, June 18, 2018

U.S. red meat and poultry forecasts

	2015					2016					2017					2018					2019	
	I	II	III	IV	Annual	I	П	III	IV	Annual	I	II	III	IV	Annual	I	П	III	IV	Annual	I	Annual
Production, million lb																						
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	6,730	6,895	7,035	27,125	6,560	27,715
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	6,380	6,505		26,715		27,610
Lamb and mutton	38	39	37	37	150	38	39	36	37	150	37	36	35	37	145	39	35	35		146		146
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	10,615	10,750		42,450		43,300
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	1,470	1,480	1,535	5,937	1,475	5,970
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	25,382	25,823	26,646	102,980	25,641	105,358
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	1,930	1,950	2,000	7,786	1,950	7,950
Per capita disappearance, retail lb 1/																						
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	14.6	14.6	14.7	57.9	14.1	58.8
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	12.2	12.8	14.1	51.7	12.7	53.1
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	0.2	0.2	0.3	1.1	0.3	1.1
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	23.1	22.4	90.9	22.6	23.1	23.3	23.2	92.2	22.9	93.2
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	3.7	4.0	4.9	16.1	3.7	16.2
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	55.4	57.5	220.4	54.1	223.9
Eggs, number	65.6	63.0	61.5	65.4	255.6	67.4	66.3	67.3	70.6	271.7	68.5	68.6	69.3	69.9	276.4	68.2	68.1	68.9	71.5	276.7	69.0	280.8
Market prices																						
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	116-119	106-112	108-116	114-118	116-126	113-122
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	141-144	134-140	134-142	139-143	132-142	137-146
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	60-63	59-65	58-66	60-64	55-65	56-65
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	153-156	157-163	146-154	148-152	143-153	149-158
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	46-47	44-46	36-38	44-45	41-45	42-45
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	112-115	99-105	93-101	100-104	96-104	97-105
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	79-80	78-82	86-94	81-84	77-83	84-91
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	118-121	117-123	125-135	135-140	115-125	120-130
U.S. trade, million lb, carcass wt. equivalent																						
Beef & veal exports	523	607	542	595	2,267	535	621	661	738	2,556	651	683	746	782	2,862	730	745	785	790	3,050	750	3150
Beef & veal imports	878	990	890	613	3,371	793	831	751	639	3,015	699	813	814	668	2,994	722	820	830	680	3,052	750	3140
Lamb and mutton imports	53	56	46	59	214	68	55	41	52	216	80	58	57	57	252	80	57	56	59	252	78	256
Pork exports	1,224	1,339	1,173	1,274	5,010	1,229	1,318	1,235	1,457	5,239	1,432	1,426	1,230	1,544	5,632	1,516	1,500	1,300	1,675	5,991	1560	6165
Pork imports	279	266	270	300	1,116	293	257	266	275	1,091	264	281	283	287	1,116	279	285	290	290	1,144	290	1165
Broiler exports	1,624	1,713	1,487	1,496	6,321	1,585	1,605	1,734	1,720	6,644	1,711	1,618	1,664	1,787	6,780	1,708	1,740	1,760	1,730	6,938	1750	7100
Turkey exports	148	123	125	132	529	116	141	160	153	569	133	148	167	173	621	153	155	175	180	663	145	655
Live swine imports (thousand head)	1,309	1,541	1,371	1,519	5,740	1,468	1,406	1,371	1,412	5,656	1,449	1,458	1,298	1,395	5,600	1,358	1,400	1,350	1,450	5,558	1,375	5,575

Note: Forecasts are in bold.

Updated 6/14/2018

^{1/} Per capita meal 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. For further information, contact: Mildred M. Haley, mhaley@ers.usda.gov

Dairy Forecasts

Daily I Orecasts	2017						2019				
	II	III	IV	Annual	ı	II	III	IV	Annual		Annual
Milk cows (thousands)	9,399	9,402	9,398	9,392	9,406	9,400	9,405	9,405	9,405	9,405	9,410
Milk per cow (pounds)	5,888	5,687	5,649	22,941	5,781	5,935	5,740	5,730	23,185	5,855	23,495
Milk production (billion pounds)	55.3	53.5	53.1	215.5	54.4	55.8	54.0	53.9	218.0	55.1	221.1
Farm use	0.2	0.2	0.2	1.0	0.2	0.2	0.2	0.2	1.0	0.2	1.0
Milk marketings	55.1	53.2	52.8	214.5	54.1	55.5	53.7	53.6	217.1	54.8	220.1
Milk-fat (billion pounds milk equiv.)											
Milk marketings	55.1	53.2	52.8	214.5	54.1	55.5	53.7	53.6	217.1	54.8	220.1
Beginning commercial stocks	15.9	17.8	16.2	12.7	13.4	16.4	17.8	15.5	13.4	12.6	12.6
Imports	1.4	1.5	1.6	6.0	1.2	1.6	1.4	1.6	5.8	1.3	5.6
Total supply	72.4	72.5	70.6	233.2	68.8	73.5	73.0	70.7	236.3	68.7	238.3
Commercial exports	2.5	2.3	2.4	9.2	2.4	3.0	2.5	2.3	10.2	2.3	9.8
Ending commercial stocks	17.8	16.2	13.4	13.4	16.4	17.8	15.5	12.6	12.6	15.8	11.8
Net removals	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	52.1	54.1	54.8	210.5	50.0	52.7	55.0	55.8	213.5	50.6	216.7
Skim solids (billion pounds milk equiv.)											
Milk marketings	55.1	53.2	52.8	214.5	54.1	55.5	53.7	53.6	217.1	54.8	220.1
Beginning commercial stocks	10.5	11.6	12.1	9.5	11.8	11.4	11.7	10.4	11.8	10.4	10.4
Imports	1.5	1.4	1.5	6.1	1.4	1.4	1.4	1.5	5.6	1.4	5.6
Total supply	67.0	66.2	66.5	230.1	67.3	68.4	66.8	65.5	234.5	66.7	236.1
Commercial exports	10.3	9.7	11.0	40.8	11.5	12.6	11.3	10.8	46.2	11.2	45.6
Ending commercial stocks	11.6	12.1	11.8	11.8	11.4	11.7	10.4	10.4	10.4	11.0	10.7
Net removals	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	45.2	44.4	43.6	177.5	44.4	44.1	45.2	44.3	177.9	44.4	179.8
Milk prices (dollars/cwt) 1											
All milk	16.83	17.73	17.83	17.65	15.67	16.10	17.00	17.70	16.60	16.85	16.70
						-16.30	-17.50	-18.50	-17.00	-17.85	-17.70
Class III	15.74	16.13	16.34	16.17	13.87	14.80	15.80	15.75	15.05	15.25	15.30
						-15.00	-16.30	-16.55	-15.45	-16.25	-16.30
Class IV	14.80	16.36	14.12	15.16	13.01	14.30	15.25	14.70	14.30	13.50	13.70
						-14.60	-15.85	-15.60	-14.80	-14.60	-14.80
Product prices (dollars/pound) ²											
Cheddar cheese	1.555	1.623	1.712	1.634	1.515	1.595	1.650	1.660	1.605	1.620	1.625
						-1.615	-1.700	-1.740	-1.645	-1.720	-1.725
Dry whey	0.509	0.434	0.347	0.444	0.260	0.270	0.335	0.315	0.295	0.305	0.300
						-0.290	-0.365	-0.345	-0.315	-0.335	-0.330
Butter	2.229	2.597	2.295	2.330	2.161	2.310	2.385	2.345	2.295	2.175	2.210
						-2.350	-2.465	-2.455	-2.365	-2.305	-2.340
Nonfat dry milk	0.874	0.874	0.763	0.867	0.700	0.775	0.845	0.800	0.775	0.745	0.755
-						-0.795	-0.885	-0.860	-0.815	-0.815	-0.825

Totals may not add due to rounding.

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

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

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*.