



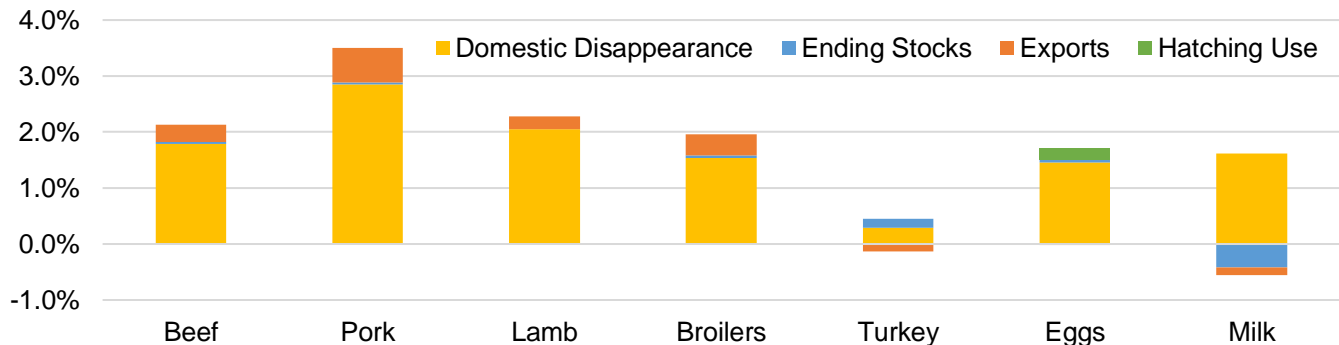
Livestock, Dairy, and Poultry Outlook

Components of 2019 Growth in Utilization of Livestock, Dairy, and Poultry

Kim Ha

The June release of the *Livestock, Dairy and Poultry Situation and Outlook* report examined the projected growth of the 2019 supply of red meats, poultry, eggs, and milk and disaggregated the growth into its components. This month, we look at the breakdown of 2019 utilization growth for these commodities. In building a supply and demand balance sheet, total utilization consists of domestic disappearance, exports, ending stocks, and for eggs, hatching use. As with supply,¹ in the *World Agricultural Supply and Demand Estimates* report, 2019 forecasts indicate growth expectations for utilization of U.S. beef (+2.1 percent), pork (+3.5 percent), lamb (+2.3 percent), broilers (+2.0 percent), turkey (+0.3 percent), eggs² (+1.7 percent), and milk³ (+1.1 percent). The components that comprise this growth are illustrated in the chart below. As can be seen, higher disappearance will be the main constituent of rising usage across all seven commodities. Expanded exports are also expected to make up a notable portion of the increase in utilization for pork, broilers, beef, and lamb. Conversely, milk and turkey exports are forecast to decline; in the case of turkey, lower exports will likely be reflected in a combination of higher domestic disappearance and larger stocks. In the case of milk, both ending stocks and exports are lower, with increased domestic disappearance. Last, in addition to growth in stocks and use of table eggs, part of the total usage growth for eggs can be attributed to an expected increase in hatching use.

Percentage change in utilization* of major U.S. livestock, poultry, and dairy commodities, disaggregated by domestic disappearance, ending stocks, exports, and hatching use (2019/2018)



*Year-over-year percentage change in utilization is equal to the net sum of all components.
 Source: U.S. Dept. of Agriculture, Economic Research Service.

¹ July utilization growth projections do not match supply growth projections reported in June, because WASDE estimates were revised.
² Includes table and hatching eggs.
³ Milk-fat milk-equivalent basis.

Beef/Cattle: The forecast for 2018 beef production was increased slightly, reflecting higher expected second-half cow and bull slaughter that was partially offset by lower second-quarter cattle dressed weights. The 2019 beef production forecast was reduced on lower anticipated steer and heifer slaughter in the first quarter. The feeder cattle price forecast was raised for second-half 2018 and 2019 on improved feeding outlook. The beef export forecast for 2018 and 2019 was raised on strong demand expected from Asian markets.

Dairy: Due to downward price movements in recent weeks, high stock levels, relatively weak growth in domestic use, and expected impacts of new tariffs imposed by China, dairy product prices for the remainder of 2018 are expected to be lower than forecast last month. For 2019, all price forecasts have been lowered except for butter. The 2018 all-milk price forecast has been lowered to \$15.95-\$16.25 per cwt, a reduction from \$16.60-\$17.00 forecast last month. The 2019 all-milk price forecast has been lowered to \$16.25-\$17.25 per cwt, a reduction from \$16.70-\$17.70 forecast last month. With lower expected milk prices, milk cows are expected to average 9.395 million head in 2019, a year-over-year contraction of 10 thousand head. Yield per cow is forecast at 23,170 pounds in 2018 (15 pounds less than last month's forecast) and 23,475 pounds in 2019 (20 pounds less than last month's forecast).

Pork/Hogs: The June *Quarterly Hogs and Pigs* reported record-high inventories of all hogs and pigs and litter rates for the March-May quarter. These increases, together with a 3-percent increase in the U.S breeding inventory, point to large pork production increases in the second-half of 2018 and the first half of 2019. Hog prices are expected to respond to increased supplies and the impacts of tariffs on export competitiveness, averaging about 16 percent below a year earlier in the second half of 2018 and about 12 percent below prices a year earlier in the first half of 2019.

Poultry/Eggs: Broiler production forecasts were raised on recent data, including placements and average bird weights. Egg price projections were raised on a recent upsurge, while production forecasts were increased on recent data, including year-over-year growth in layer inventory. Turkey production remains down relative to 2017 as low prices and high stocks in cold storage suggest reduced demand compared with recent years. Turkey exports fell versus a year earlier for the first time in 8 months in May, but the export market remains strong relative to domestic use.

Cattle / Beef

Russell Knight and Lekhnath Chalise

2018 Beef Production Raised Slightly

First-half 2018 was characterized by higher cow and heifer slaughter, reducing the proportion of steers in the slaughter mix and lowering average cattle dressed weights. A faster marketing pace of steers and heifers also contributed to lower estimated cattle dressed weights. The beef production forecast for third-quarter 2018 is raised on higher cow and bull slaughter. As a result, the full-year forecast for 2018 was raised by 25 million pounds to 27.2 billion pounds.

Continuing drought conditions in parts of the Great Plains and the intermountain region likely supported strong placements of calves in feedlots in May, indicated in the latest NASS *Cattle on Feed* report. To the extent that earlier-than-expected placements may be reflected in slower placement in the third quarter, first-quarter 2019 marketings and fed beef slaughter were reduced. However cow slaughter in 2019 was adjusted higher. As a result, the production forecast for 2019 was reduced by 25 million pounds to 27.7 billion pounds.

Robust Feedlot Placements in May

According to the latest NASS *Cattle on Feed* report, net placements in feedlots with a capacity greater than 1,000 head were 2.05 million head in May, fractionally higher than reported last year. On the ERS webpage *Livestock & Meat Domestic Data* is a table entitled “Feeder Cattle Supplies Outside Feedlots” that estimates that on April 1 there were 2.8 percent fewer calves available for placement into feedlots. The placement volume in May relative to the availability of cattle outside feedlots was likely the result of regional drought conditions. USDA will release the *Cattle* report on July 20, providing an opportunity to calculate the percent of cattle outside feedlots in July.

Throughout the winter and extending into the summer months, drought conditions have plagued the Great Plains area, squeezing hay and roughage supplies. During the winter, many calves directed to feedlots might have otherwise stayed on pastures until the spring. This limited the expectation for strong cattle placements in feedlots this spring. However, as the drought has expanded into the intermountain region, available summer pastures may have become restricted as well. As a result, some stocker operations may have placed cattle in the second quarter instead of waiting until third quarter. This is likely observed in the year-over-year increase in both volume and percentage of total placements of calves weighing under 600 pounds in May 2018.

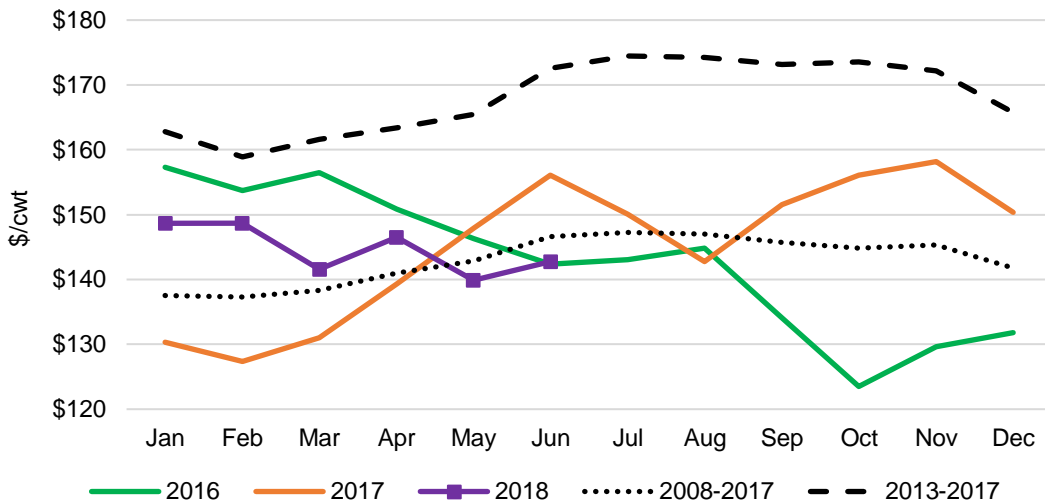
Feeder Cattle Prices To Find Support From Lower Feed Inputs

In the first 4 months of the year, monthly prices for feeder steers weighing 750-800 pounds sold at the Oklahoma National Stockyards were above year-earlier levels (see chart below). However, the trend for monthly prices January through May ran countercyclical to seasonal norms. Prices did improve in June, even as feedlot margins were weak-to-negative for selling fed cattle.

Despite firm feeder cattle prices in June and early July, the projected feedlot margin for feeding out a 750-pound calf that is purchased today appears to have improved, and with lower corn price forecasts for the current and following marketing years demand for calves for finishing may increase, supporting higher feeder calf prices. With these improved feeding prospects, the price forecast for feeder steers

was raised for third- and fourth-quarter 2018 to \$139-\$145 per hundredweight and to \$134-\$145/cwt, respectively. The forecast of the 2019 annual price was raised to \$136-\$148/cwt.

Monthly prices for feeder steers 750-800 pounds improve



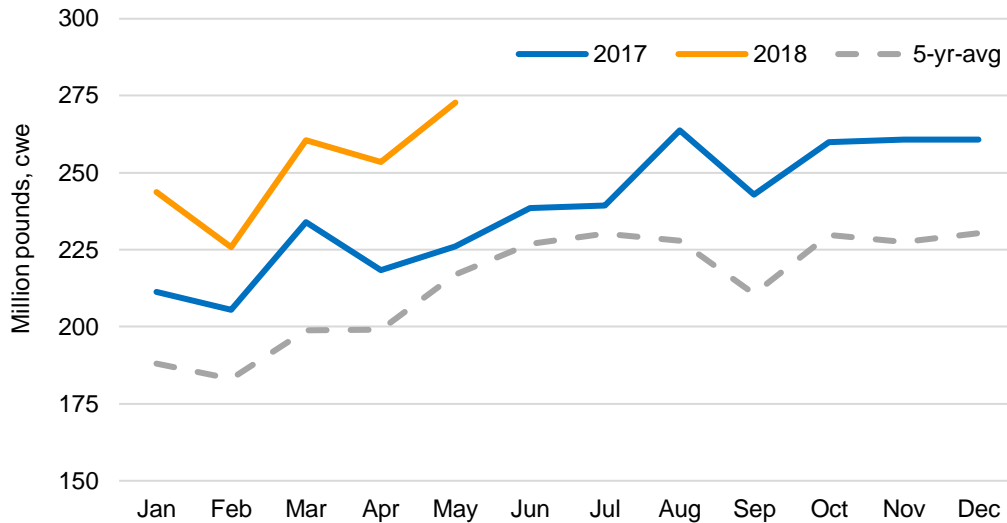
Source: U.S. Dept. of Agriculture, Agriculture Marketing Service.
 Note: cwt = hundredweight.

The third-quarter 2018 price forecast for fed steers was adjusted slightly lower to \$107-\$111/cwt based on June and early July price data. The price forecasts for fourth-quarter 2018 and 2019 remain unchanged.

Strong Asian Demand Drives Exports Higher

U.S. beef exports in May 2018 were 273 million pounds, up 47 million pounds (+20.7 percent) from the year-earlier level. Shipments to all major destinations increased except for a slight decline to Hong Kong (-1.8 percent). Exports were higher in each month of 2018 through May compared to year-ago levels (see chart below). For the month of June, weekly estimates from USDA, Foreign Agriculture Service Export Sales reports also indicate a year-over-year increase. Based on the higher April-May pace and higher weekly export estimates for June, the second-quarter 2018 export forecast was revised upward by 20 million pounds from the previous month to 765 million pounds. This resulted in a higher 2018 forecast of 3.070 billion pounds. Beef exports in second-quarter 2019 were raised by 15 million pounds to 785 million pounds, which resulted in the 2019 export forecast of 3.165 billion pounds.

Higher year-over-year beef exports through May



Source: U.S. Dept. of Agriculture, Economic Research service.
Note: cwe = carcass weight equivalent.

Greater exports in May to three major Asian markets, South Korea, Japan, and Taiwan, contributed 37.4 million pounds or about 80 percent of the total May increase. Among the major export destinations, exports to South Korea were exceptionally high in each month, reaching a 40-percent year-over-year increase through May. A relatively large U.S. beef supply is likely to support the continuation of robust overseas shipments to those markets. In addition to strong demand, a relatively weaker U.S. dollar against the Korean won and lower tariffs compared to competitors have likely enhanced exports to South Korea during this period.

The Beef Import Forecast Remains Unchanged After May Imports

In May, U.S. beef imports were up 3.9 percent year over year to 278 million pounds. Higher imports from New Zealand (+28.7 percent), Australia (+14.9 percent), Nicaragua (+31.2 percent), and Canada (+3.8 percent) more than offset the declines from Brazil (-40.8 percent), Mexico (-13.2 percent), and Uruguay (-33.1 percent). Beef import forecasts were unchanged from the previous month's forecasts at 3.052 billion pounds for 2018 and 3.140 billion pounds for 2019.

On the supply side, extended drought in Australia and lower dairy prices in New Zealand are likely to increase cow culling rates, which will increase exportable supplies in the short term. On the demand side, U.S. demand for lean meat is expected to remain strong as supplies of 50-percent lean meat will reflect increased fed cattle slaughter in the coming months.

Cattle Exports Revised Upward on Canadian Demand

Cattle exports were strong in May, with nearly 15,000 head exported, almost double year-earlier levels. Lower feeder cattle prices in the United States relative to those of Canada likely supported greater demand. Given this increase, the cattle export forecast for 2018 was revised upward by 10,000 head to 170,000 head. The 2019 export forecast was also adjusted higher by 10,000 head to 160,000 from the previous month's forecast. Cattle imports in May totaled 169,763 head, an increase of 11,033 head year over year. The import forecasts for 2018 and 2019 are unchanged from the previous month's forecast, at 1.885 million and 1.960 million head, respectively.

Dairy

Jerry Cessna and Jonathan Law

Recent Developments in Dairy Markets

From the week ending June 2 to the week ending July 7, all wholesale dairy product prices reported in the USDA *National Dairy Products Sales Report* (NDPSR) decreased, with the exception of dry whey. Cheddar cheese 500-pound barrels had the largest decrease of 23.2 cents per pound.

Dairy wholesale product prices (dollars per pound)

	For the week ending		Change
	June 2	July 7	
Butter	2.4030	2.2976	-0.1054
Cheddar cheese			
40-pound blocks	1.6756	1.5950	-0.0806
500-pound barrels ¹	1.6136	1.3820	-0.2316
Nonfat dry milk	0.8361	0.7785	-0.0576
Dry whey	0.2849	0.3364	0.0515

¹ Adjusted to 38-percent moisture.

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

U.S. dairy product prices continue to be competitive with foreign export prices. USDA *Dairy Market News* reported that in June, Oceania and Western Europe export prices averaged \$2.55 and \$3.21 per pound for butter, respectively, and \$0.94 and \$0.85 for skim milk powder (SMP).⁴ The Oceania export price for cheddar cheese was \$1.78 per pound in May, and the Western Europe dry whey export price was \$0.42 per pound. Recently, the EU has increased sales of SMP intervention stocks. For May, ending intervention stocks decreased by 54 million pounds from the previous month. At the most recent tender on June 19, the minimum sale price set by the EU Commission was €1,195 per metric ton, which converts to about \$0.63 per pound. These stocks are likely sold at a discount from the average market price due to the age of the product.

USDA National Agricultural Statistics Service (NASS) reported U.S. milk production in May to be 19.100 billion pounds, 0.8 percent above May 2017. Milk cows numbered 9.404 million head in May, 2,000 more than April. Milk per cow was 2,031 pounds in May, 15 pounds above May 2017. The all-milk price in May was 16.20 per cwt, 40 cents higher than April. As milk prices rose, so did feed prices. The milk-feed ratio for May was 1.9, the same as for April.

While year-over-year milk production growth for the United States was relatively modest in March, the latest data for the European Union (EU) and New Zealand show stronger growth rates. Year-over-year growth in milk production for the EU strengthened from 0.6 percent in March to 1.2 percent in April. May

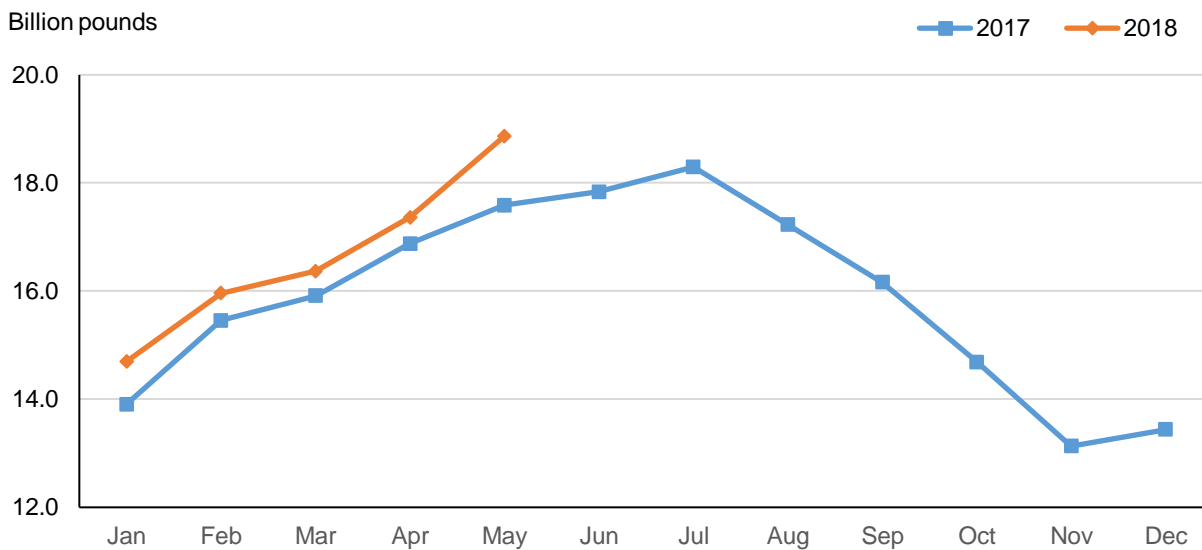
⁴ Foreign export prices are midpoints of price ranges reported free on board (f.o.b.) port of the exporting country; they are reported voluntarily and reflect prices for products that may be shipped in subsequent months.

milk production data for the EU are not yet available. For New Zealand, May milk production was 6.2 percent above May 2017.

In May, U.S. dairy product exports remained strong, but they were not as strong as in April. On a milk-fat milk-equivalent basis, exports were 936 million pounds, 44 million more than May 2017 but 124 million less than April of this year. On a skim-solids milk-equivalent basis, May exports were 4.266 billion pounds, 696 million more than May 2017 but 215 million less than April of this year. Notably, cheese exports declined by 6.5 million pounds from April to May. In May, dairy imports increased both month-over-month and year-over-year. On a milk-fat basis, imports totaled 550 million pounds, 34 million more than April and 59 million above May 2017. On a skim-solids basis, imports totaled 481 million pounds, 37 million more than April and 26 million more than May 2017.

Domestic use has been relatively weak in recent months. For the 3 months from March through May, domestic use was less than in the same months of 2017 by 1.7 percent on a milk-fat basis and 2.5 percent on a skim-solids basis. Relatively weak domestic use has contributed to high stock levels, especially on a milk-fat basis. May ending stocks on a milk-fat basis were 18.866 billion pounds, 7.3 percent higher than May 2017. On a skim-solids basis, May ending stocks were 11.395 billion pounds, 0.8 percent higher than May 2017. Ending stocks of other-than-American cheese reached a new record of 581 million pounds in May, 17.9 percent higher than May 2017. Ending stocks for butter were high as well, reaching 339 million pounds in June, 8.0 percent higher than May 2017.

Ending stocks of dairy products on a milk-fat milk-equivalent basis



Sources: U.S. Dept. of Agriculture: National Agricultural Statistics Service and Economic Research Service calculations.

On June 16, 2018, the Chinese Government announced a revised list of U.S. products subject to an additional 25-percent tariff in response to tariffs imposed by the United States on various goods imported from China. The initial list had been announced on April 2. Among the products included on the revised list were all dairy products included in Chapter 4 of the Harmonized Tariff Schedule (HTS). These products received an additional tariff of 25 percentage points as of July 6. Although a wide variety of dairy products are included in Chapter 4 of the HTS, the products that have had substantial volumes of exports to China include nonfat dry milk/skim milk powder (NDM/SMP), whey products, and cheese. The 25-percent tariffs are in addition to tariffs previously imposed at the most-favored nation-rate.

China's schedule of additional tariffs on selected U.S. dairy products applied to CIF (cost, insurance, freight) price

	Most-favored nation rate (prior to June 6)	Additional tariff	New rate (as of June 6)
Nonfat dry milk / skim milk powder	10	25	35
Whey products	2	25	27
Fresh cheese and curd	12	25	37
Grated or powdered cheese	8	25	33
Other processed cheese	8	25	33
Blue-veined and other veined cheese	8	25	33
Other cheese	8	25	33

Source: People's Republic of China, State Council Tariff Committee Announcement, Notice [2018] No. 5.

U.S. export volumes to China have been especially high for whey products. In 2017, exports of dry whey, whey protein concentrate (WPC), and modified whey products⁵ to China were 45.4 percent, 41.5 percent, and 54.4 percent of total U.S. exports of these products. In 2017, U.S. exports of NDM/SMP and cheese to China were 5.7 percent and 4.2 percent of total U.S. exports of these products. According to China's 2017 import data as reported by Global Trade Atlas, U.S. shares of China's imports of NDM/SMP, whey products, and cheese were 11.2 percent, 55.1 percent, and 11.9 percent, respectively.

U.S. production and export data relevant to world and China for selected products
(quantities in millions of pounds)

	U.S. production quantity	U.S. exports to world		U.S. exports to China		
		Quantity	Percent of U.S. production	Quantity	Percent of U.S. production	Percent of U.S. exports to world
<u>Nonfat dry milk / skim milk powder</u>						
2017	2,365	1,336	56.5	77	3.2	5.7
2018 Jan-May	1,046	723	69.1	27	2.6	3.7
<u>Dry whey</u>						
2017	1,037	471	45.4	214	20.6	45.4
2018 Jan-May	441	224	50.7	84	19.1	37.6
<u>Whey protein concentrate</u>						
2017	484	321	66.2	133	27.5	41.5
2018 Jan-May	210	174	82.9	85	40.3	48.6
<u>Modified whey</u>						
2017	NA	339	NA	184	NA	54.4
2018 Jan-May	NA	126	NA	63	NA	50.0
<u>Cheese</u>						
2017	12,659	752	5.9	32	0.2	4.2
2018 Jan-May	5,356	334	6.2	16	0.3	4.7

NA = not available.

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.

⁵ Industry sources indicate that whey permeate likely accounts for most of the modified whey exported to China. Other products included in this category are whey products with reduced lactose or minerals.

China was not the only country to add tariffs in response to U.S. tariffs recently imposed on various goods. As discussed in last month's report, on June 5, 2018, Mexico issued a list of agricultural products to receive additional tariffs. With publication of the list, Mexico imposed tariffs on cheese of 10 or 15 percent, depending on the cheese type, and the tariffs were increased to 20 and 25 percent on July 5. Canada raised tariffs by 25 percent on various products effective July 1. Dairy-related items included in Canada's list for additional tariffs include yogurt and pizza.

Outlook for Feed Prices

The feed price estimates for 2017/18 for corn and soybean meal have been lowered from last month's forecast to \$3.30-\$3.50 per bushel and \$350 per short ton, respectively. The alfalfa hay price in May was \$189 per short ton, \$6 higher than April and \$32 higher than May of last year. The average corn price for 2018/19 is projected to be \$3.30-\$4.30 per bushel, 10 cents lower than last month's forecast at the midpoint. The 2018/19 average soybean meal price is projected at \$315-\$355 per short ton, \$15 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

The 2018 forecast for the average size of the U.S. milking herd is 9.405 million cows, unchanged from last month. Due to relatively slow year-over-year growth in milk per cow in recent months and lower expected margins, the milk per cow forecast has been lowered to 23,170 pounds, 15 pounds less than last month's forecast. The milk production forecast for 2018 is 0.1 billion pounds lower than last month, at 217.9 billion pounds.

Imports for 2018 on a milk-fat basis are now forecast at 5.9 billion pounds for 2018, 0.1 billion pounds higher than the last forecast, due to higher expected imports of butterfat products. The export forecast on a milk-fat basis is unchanged at 10.2 billion pounds as lower expected cheese exports are expected to be offset by higher expected exports of butterfat products. The domestic use forecast on a milk-fat basis has been lowered 1.0 billion pounds to 212.5 billion pounds for the year. Due to growing stocks of butter and cheese in May and flagging prices suggesting relatively weak demand, the forecast for ending stocks has been raised 0.9 billion pounds to 13.5 billion.

On a skim-solids basis, the import forecast remains at 5.6 billion pounds for the year. The 2018 export forecast has been lowered 0.2 billion pounds to 46.0 billion for the year. Recently enacted tariffs by China are expected to primarily affect exports of NDM/SMP and whey products. Also, cheese exports are expected to be lower than previously forecast based upon recent export data. The domestic use forecast on a skim-solids basis is 177.8 billion pounds, 0.1 billion pounds lower than last month's forecast. Due to lower expected exports and domestic use, the ending stock forecast for the year has been raised slightly to 10.5 billion pounds.

Product prices for 2018 are expected lower in the second half of the year than previously forecast. Price forecasts for cheddar cheese and butter have been lowered to \$1.540-\$1.570 and \$2.245-\$2.305 per pound, respectively, due to relatively weak price data in recent weeks, high stock levels, and lower expectations for domestic demand. The price forecast for NDM has been lowered to \$0.730-\$0.760 per pound due to recent price weakness. Although dry whey prices have increased recently, the dry whey price forecast has been lowered to \$0.275-\$0.295 per pound due to lower expected exports.

With lower product prices, the Class III and Class IV price forecasts have been lowered to \$14.30-\$14.60 and \$13.65-\$14.05 per cwt, respectively. The all-milk price for 2018 is now forecast at \$15.95-\$16.25 per cwt, 70 cents lower at the midpoint of the range than the previous forecast.

Dairy Forecasts for 2019

Lower dairy prices in late 2018 and 2019 are expected to lead to a slight contraction in cow numbers in 2019. The new forecast for the size of the milking herd is 9.395 million head for the year, a decrease of 15 thousand head from last month's forecast and a year-over-year decrease of 10 thousand head. Milk per cow is forecast 20 pounds lower than last month's projection, at 23,475 pounds for the year. These changes result in a milk production forecast of 220.6 billion pounds for 2019, 0.5 billion pounds lower than last month's projection.

Imports on a milk-fat basis are forecast at 5.6 billion pounds, unchanged from last month's forecast. Exports on a milk-fat basis are forecast 0.1 billion pounds higher than last month, at 9.9 billion pounds for the year, due to slightly higher expectations for exports of butterfat products. Weaker domestic demand for cheese and butter is expected to continue into next year; as a result, domestic use is forecast 0.4 billion pounds lower than last month at 216.3 billion pounds, and ending stocks are forecast 0.7 billion pounds higher, at 12.5 billion pounds.

On a skim-solids basis, the import forecast for 2019 remains at 5.6 billion pounds for the year. The forecast for exports on a skim-solids basis has been reduced to 44.9 billion pounds, 0.7 less than last month's forecast, as the new tariffs from China are expected to result in lower exports of primarily NDM/SMP and whey products despite expectations of increase in exports to other markets. With lower expected prices, the domestic use forecast has been raised slightly to 180.0 billion pounds for the year. Ending stocks on a skim-solids basis are projected 0.1 billion pounds higher for the year than last month at 10.8 billion pounds.

Lower product prices in the second half of 2018 are expected to persist into 2019 for most dairy products. The cheddar cheese price forecast has been lowered to \$1.575-\$1.675 per pound due to high stock levels and weaker expected demand. Due to higher tariffs imposed by China and competition from other global suppliers, 2019 forecasts have been lowered for NDM and dry whey to \$0.740-\$0.810 and \$0.280-\$0.310, respectively. The butter price forecast for 2019 has been raised 1 cent at the midpoint of the range to \$2.220-\$2.350 per pound.

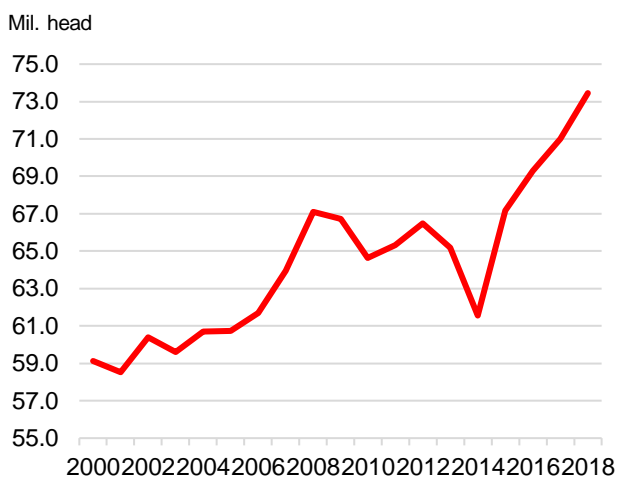
The Class III and Class IV price forecasts are \$14.70-\$15.70 and \$13.65-\$14.75 per cwt, respectively, reductions of 60 cents and 5 cents from last month's forecast at the midpoints of the ranges. The all-milk price for 2019 is now forecast at \$16.25-\$17.25 per cwt, 45 cents lower at the midpoint than the last forecast.

Pork / Hogs

Mildred Haley

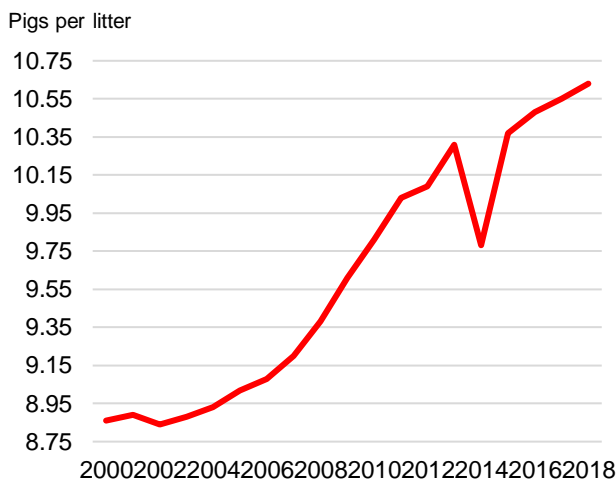
Followers of the U.S. pork industry have likely become accustomed to successive releases of the *Quarterly Hogs and Pigs* reporting record-high inventories of both all hogs and pigs and litter rates. The industry has been setting quarterly inventory records almost since 2015,⁶ and litter rates have been consistently breaking records, mostly since the early 2000s, interrupted only by serious disease outbreaks in 2014. So largely in line with expectations, the *Quarterly Hogs and Pigs* released by USDA on June 28 reported series highs for both the June 1 inventory of all hogs and pigs and the March-May litter rate. The inventory of all hogs and pigs was 73.5 million head, 3.4 percent higher than a year earlier, and the litter rate calculated for the March-May pig crop set the 14th consecutive record for the quarter —excluding 2014—at 10.63 pigs per litter.

All hogs and pigs inventory: June



Source: National Ag. Statistics Service, USDA.

Litter rates: June

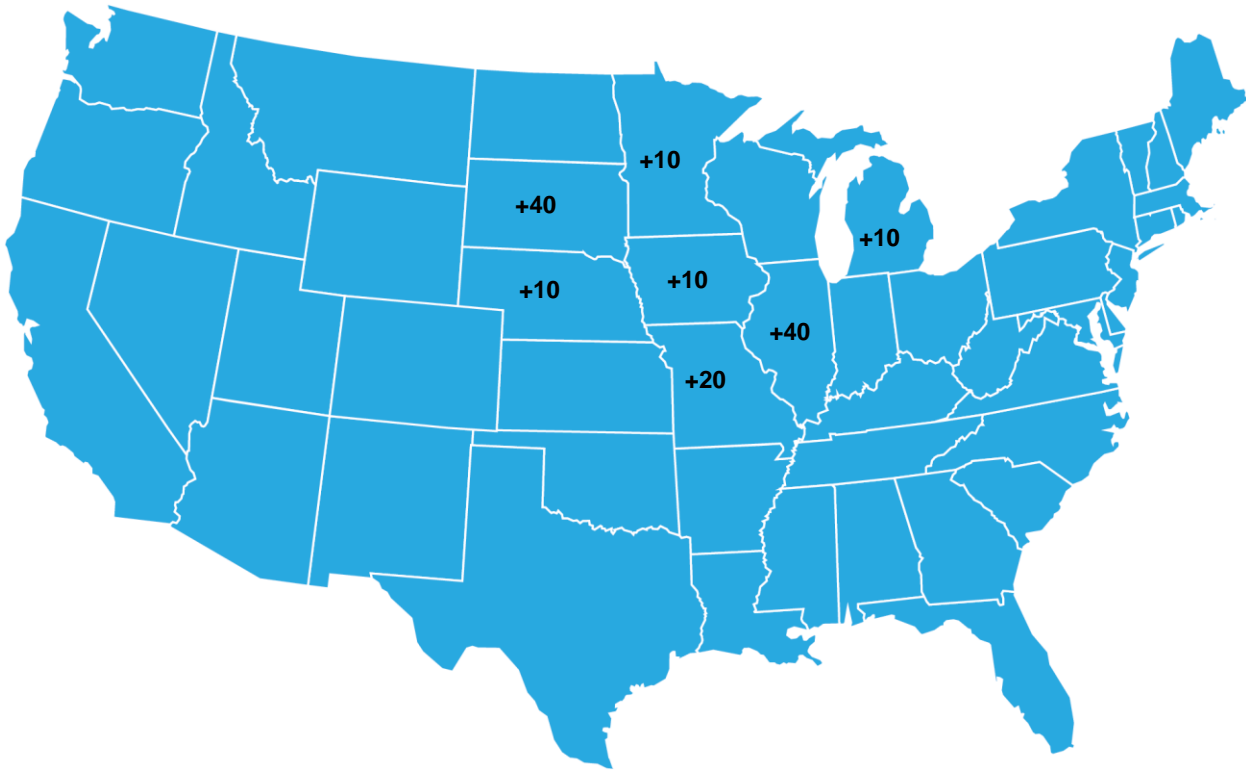


Source: National Ag. Statistics Service, USDA.

One aspect of the report that likely fell outside most expectations, was the extent of the expansion of the breeding inventory. The report indicated that the U.S. inventory of breeding animals increased by over 200 thousand head, or by more than 3 percent. States with the most increases were Illinois and South Dakota, each adding 40 thousand animals to their respective inventories. The data indicate that more than 60 percent of the additions to the national breeding inventory came in States proximate to new Midwestern processing facilities in Michigan, Minnesota, and Iowa.

⁶ Only the December report has not reported successive all-time highs for all hogs and pigs inventories since 2015. The all-time December high was recorded in 1943, at 83.7 million head, followed in 1942 at 73.9 million head. The next highest was in December 2017 at 73.7 million head, then in 2016 at 71.5 million head, and then in 2015 at 68.9 million head.

June 1, 2018, number of significant increases in breeding animals (in thousand head), compared with June 1 2017



Source: National Agriculture and Statistics Service, USDA.

The June Report's Implications for Pork Production in the Second-Half of 2018 and the First-Half of 2019

Based on the June *Quarterly Hogs and Pigs* reporting of market hog weight groups, third-quarter 2018 commercial pork production of about 6.5 billion pounds is forecast, about 5 percent greater than production a year earlier. The report also indicated 4 percent larger March-May farrowings, which, when combined with the record-high litter rate, yielded a pig crop 4 percent larger than a year earlier. This pig crop points to fourth-quarter 2018 commercial pork production of 7.2 billion pounds, more than 6 percent above production a year earlier. Producers' stated farrowing intentions for the last two quarters of 2018, combined with assumptions of trend litter rate growth and small increases in dressed weights, yield a first-quarter 2019 pork production forecast of 6.8 billion pounds, almost 3 percent above the first quarter of 2018; and a second-quarter 2019 production increase of more than 5 percent, to about 6.7 billion pounds.

Prices of live equivalent 51-52 percent lean hogs for the balance of 2018 and the first half of 2019 reflect pressure on pork markets from large supplies of hogs implied by the June report, despite announced increases in slaughter capacity, as well potential impacts of tariffs on U.S pork exports to Mexico and China. On balance, the impact of larger supplies and potentially weaker import demand by Mexico and China will likely be to push prices below a year earlier.

Hog prices in the third quarter of 2018 are expected to average \$47-\$49 per cwt, about 14 percent below a year ago. Fourth-quarter prices are forecast at \$35-\$37 per cwt, almost 20 percent below

prices in the fourth quarter of 2017. For 2018, average hog prices are expected to average \$45-\$46 per cwt, about 10 percent below prices in 2017. First-quarter 2019 prices are forecast to average \$39-\$43 per cwt, about 17 percent below a year earlier, and second-quarter prices are expected to average \$42-\$46 per cwt, more than 8 percent below a year earlier. For 2019, prices are forecast to average \$40-\$44 per cwt, about 7 percent below prices expected for 2018. Full-year hog prices forecast for 2018 and 2019 imply that hog producers will be challenged to cover full costs of production, given USDA forecast prices of corn and soybean meal for this year and in 2019.

May Pork Exports In Line With Expectations

U.S. pork exports were 516 million pounds in May, about equal to those of a year ago, but in line with the second-quarter 2018 export of 1.5 billion pounds. Standout sources of growth in May were Mexico, South Korea, and Columbia. The 10 largest foreign destinations for exported U.S. in May are summarized below.

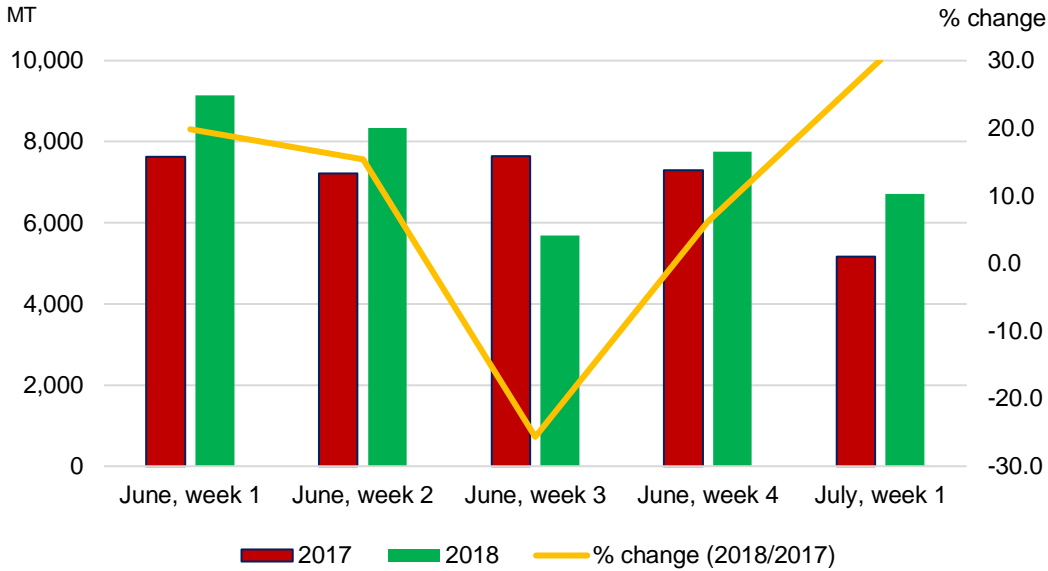
U.S. pork exports: Volumes and export shares of the 10 largest foreign destinations, May 2017 and 2018

	Country	Exports May 2017 (mil. lbs)	Exports May 2018 (mil. lbs)	Percent change (2018/2017)	Export share May 2017 %	Export share May 2018 %
	World	514	516	0.3		
1	Mexico	154	161	4.6	30.0	31.3
2	Japan	111	106	-4.4	21.6	20.6
3	South Korea	48	67	39.1	9.4	13.1
4	Canada	45	42	-7.9	8.8	8.1
5	China/Hong Kong	61	33	-45.0	11.8	6.5
6	Colombia	12	25	117.7	2.2	4.9
7	Australia	14	15	8.8	2.8	3.0
8	Dominican Republic	14	15	7.4	2.7	2.9
9	Philippines	9	8	-9.6	1.8	1.6
10	Honduras	7	8	17.3	1.4	1.6

Source: Economic Research Service, USDA.

Mexico imposed 10-percent tariffs on most U.S.-exported pork products on June 5, 2018, in response to recent U.S. implementation of Section 232 tariffs on steel and aluminum. The tariffs increased to 20 percent on July 5, effectively placing U.S. pork products on par with pork from other countries with Most Favored Nation status; in so doing, Mexico removed the NAFTA benefit from U.S. pork exported to Mexico. From what little data is publicly available, it appears that volumes of U.S. product continued to flow to Mexico, with a recovery in shipments after dipping almost 26 percent in the third week of June (the week ending June 21, 2018).

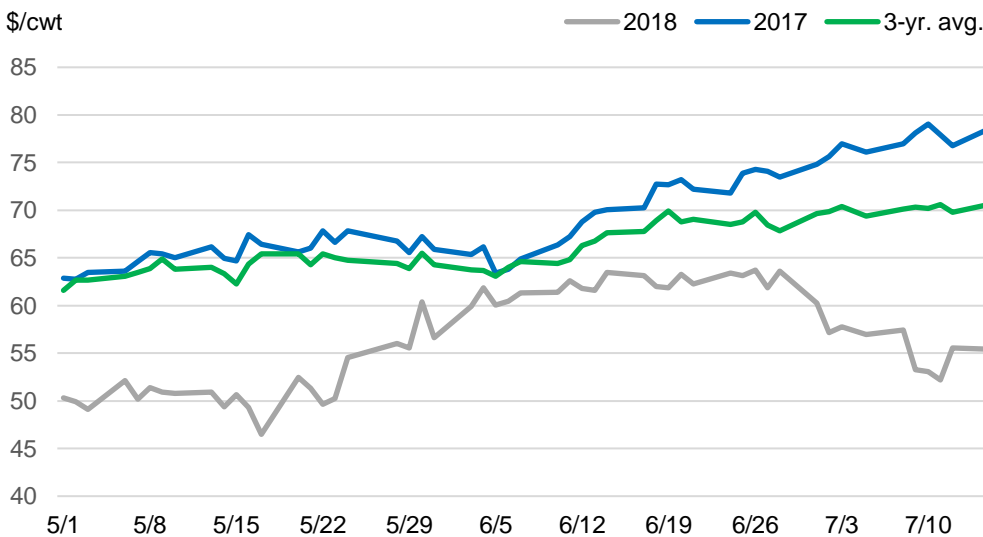
Weekly pork exports to Mexico: Fresh, chilled, frozen muscle cuts



Source: Foreign Agricultural Service, USDA.

Daily ham primal price data suggest that the initial 10-percent tariff had limited price effects. Toward the end of June however, ham prices fell off considerably, in a departure from price dynamics of a year earlier and the 3-year average for the end of June/early July period, coinciding this year with the anticipated increase of the Mexican tariffs (largely on hams) to 20 percent. Lower ham prices starting in early July could signal lower export demand. Close monitoring of weekly export sales reporting data available at <https://apps.fas.usda.gov/esrquery/> and Cold Storage data—the next issue of which is due to be released on July 23 by USDA/NASS, <https://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1034> — will provide continuing clarity as to the ongoing effects of the Mexican tariffs on U.S. ham shipments to Mexico.

Daily ham primal prices, May 1 - July 15, 2018



Source: Agricultural Marketing Service, USDA.

Poultry

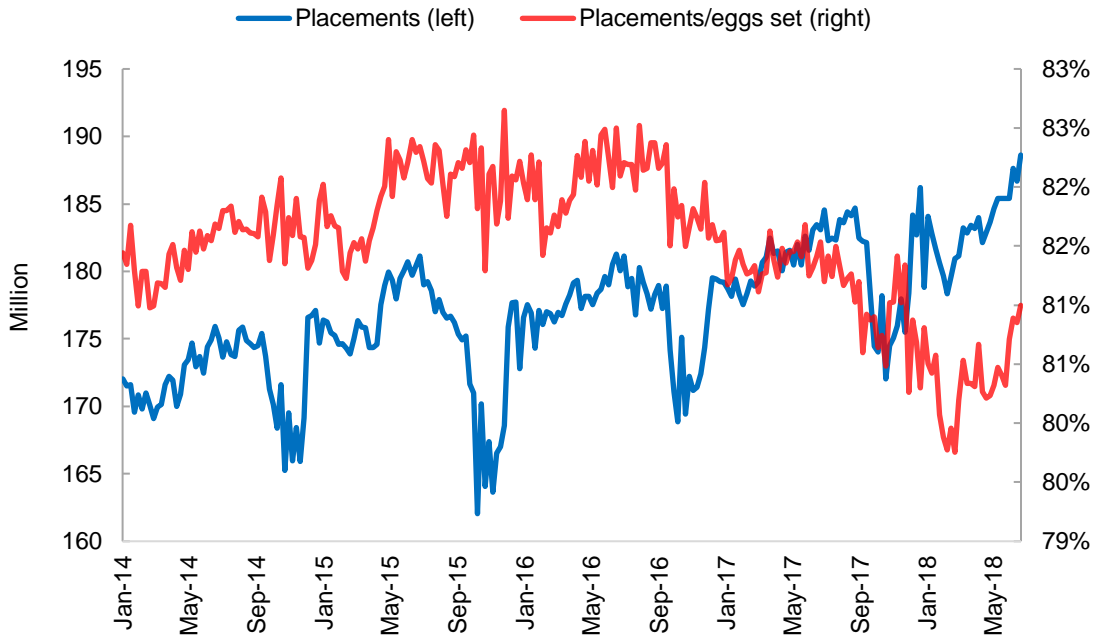
Sean Ramos, Kim Ha, and Alex Melton

Broiler Production Forecast Raised

May broiler production was 3.7 billion pounds, 2.3 percent higher than a year ago. Average live weights were up 1.1 percent from last year, accounting for nearly half of production growth. The number of chicks placed in meat-growing operations has trended strong since May, supported by a breeder inventory of over 59 million as of June 1. Strong placement levels during June also reflect improving performance of placements as a portion of eggs set in incubators 3 weeks prior, an indicator of fertile-egg hatchability (see graph below). The production projection for 2018 was increased 45 million pounds for the second and third quarters, bringing the annual total to 42.495 billion pounds. Projected production for 2019 was increased 60 million pounds.

Improving indicators for broiler chicks placed for meat growth since May

Millions placed per week and placements as a portion of eggs set in incubators 3 weeks earlier



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

Trade Volumes Sluggish

Broiler exports totaled 548 million pounds in May, down 4 percent from May 2017. Shipments to Mexico, the United States' largest broiler export market, decreased year over year by 3 percent. This decline was likely due to a brief halt in shipments caused by an outbreak of Newcastle disease in California. Nonetheless, shipments to Mexico resumed, and it is anticipated that Mexican tariffs on U.S. pork could make broiler meat—on which Mexican tariffs have not been levied—more attractive, increasing demand. This expected rebound, coupled with increasing shipments to other major foreign

markets (i.e., Taiwan, Angola, Cuba, Canada, Guatemala, and Vietnam), contributes to 2018 forecasts remaining unchanged.

With regard to imports — a minor component of broiler supply — May broiler imports were 10.8 million pounds, down 9 percent from a year earlier. Imports declined year over year from both Chile (-15 percent) and Canada (-5 percent), the United States' two major suppliers. Based on sluggish second-quarter imports and strong domestic production expectations, broiler imports were revised downward by 4 million pounds to 127 million pounds for 2018 and by 7 million pounds to 129 million pounds for 2019.

Broiler Prices Rival Historic High

Weekly whole broiler (national composite) prices continued to climb well into June, reaching a 2018 peak of 121 cents per pound for the week ending June 8 and nearly surpassing the 2014 historic high of 121.09 cents per pound. Prices have since begun steadily decreasing in line with seasonal trends. In recent years, prices have typically peaked in May or early June, so the additional 1 to 2 weeks of climbing prices, combined with higher-than-expected second-quarter prices, were the basis for increasing the third- and fourth-quarter price forecasts to 103-107 cents per pound and 94-100 cents per pound, respectively.

Egg Production Expansion Proceeding

May table egg production reached 661 million dozen, 2 percent higher than last year. Much of the production increase resulted from a slower pace of seasonal decline in the layer inventory. Inventory levels are often reduced during the summer months but haven't decreased much so far this year. On June 1, table egg layer inventory was 4 percent above a year earlier. Consistently high egg prices in the past year have been met by steady indications that producers seek to expand, including 9 percent January-May growth in eggs hatched for adding to egg-type chicken inventories. Further signs of expansion are expected in the coming months and beyond. Projected table egg production was raised 20 million dozen for both the third and fourth quarters (about a percent each) and another 20 million dozen for 2019.

Benchmark Egg Prices Rally

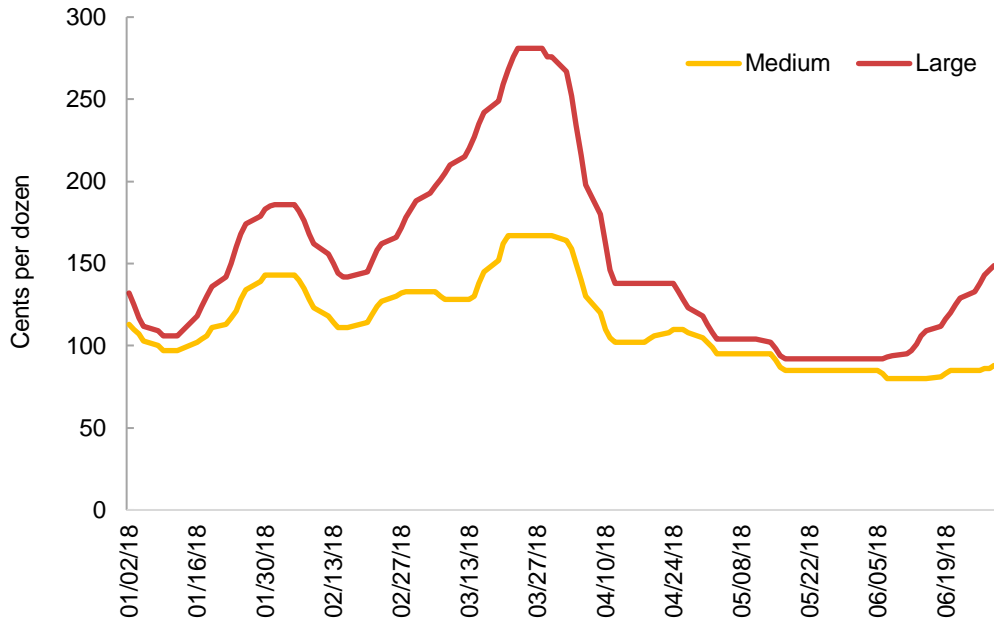
Wholesale egg prices (large grade A eggs, New York) were stable from mid-May until mid-June and then surged after, counter to normal seasonal patterns. From the beginning of June to the month's end, prices increased 57 cents, reaching 149 cents per dozen. The counter-seasonal price surge was surprising and may have reflected anticipatory buying from concerns about near-term availability. Negative retail-wholesale margins this past March resulted from rapidly increasing wholesale prices, a risk borne by retailers who typically don't change prices for their customers as often as wholesalers do. Upward pressure on wholesale prices could persist for the remainder of the year and add to price effects from higher seasonal demand in the fall. Price projections for 2018 were revised up, with third-quarter prices projected at 127-133 cents per dozen and fourth-quarter prices projected at 130-140 cents per dozen. The projection for 2019 was decreased marginally to 119-129 cents per dozen, in part due to more expected production growth.

While the large-egg market has been rallying, the spread between large and medium eggs has increased as the medium product's prices remain largely unchanged (see graph below). Generally, egg size reflects the age of the producing layer, and this widening medium- to large-egg price spread suggests a more plentiful supply of medium eggs relative to large eggs. Heat stress in layers can also increase the proportion of medium eggs; May temperatures in Iowa, the principal egg-producing State,

were recorded more than 10 percent higher than prior-year averages near major producing counties. More medium eggs may also suggest an increasing proportion of newer birds in the layer inventory as a result of recent flock expansion.

Recent egg price rally primarily affects large eggs

Monthly midpoint average for large- and medium-sized New York eggs (Wholesale, grade A)



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

Egg Stocks Continue To Trend Down

May-ending stocks of egg products declined marginally from a month earlier but remained at approximately 62 million dozen (shell-egg equivalent). The decline resulted from fewer dried egg products, while frozen stocks increased. Incentives to sell stocks have remained mostly strong due to strong egg prices, and stocks have declined over 50 percent since peaking in February 2017. While egg production growth in the coming quarters should support stock-level increase, the projected year-ending level was reduced to 75 million dozen in 2018 and to 80 million dozen in 2019 on expectations of stronger use.

Egg Exports Up, While Imports Remain Low

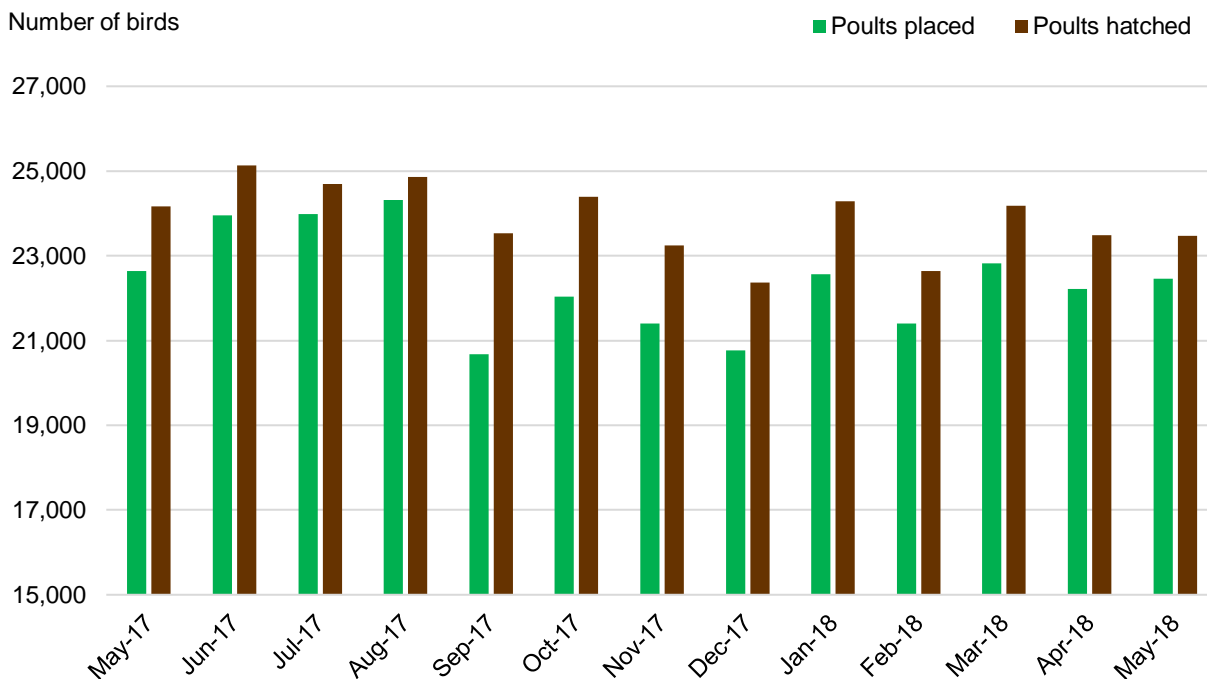
May exports of eggs and egg products were 29 million dozen (shell-egg equivalent), 2.3 percent above last year. Canada led export growth with 4.2 million dozen in additional purchases this year, most of which were shell eggs. Exports to Japan were 3.6 million dozen higher and to Hong Kong 1 million dozen higher, year over year. Increased shipments to Japan were egg products, while those to Hong Kong were shell eggs. Shipments to Mexico were down 2.3 million dozen. Lower exports to United Arab Emirates and South Korea continued to weigh down export growth, with those countries respectively down 1.5 million and 1.3 million dozen. Projected 2018 exports of egg and products were increased 6 million dozen to 341.9 million dozen.

Imports of eggs and products to the United States in May remained relatively low at 1.6 million dozen. Nearly half came from Canada, with additional contributions primarily from China, Taiwan, and Thailand.

Turkey Production Down in May as Outlook for Growth Remains Modest

May 2018 turkey production totaled 509 million pounds, a 3-percent decrease from May 2017. Hatchery report data for May was down relative to the same period in 2017. Poults hatched were down 3 percent, a return to negative territory after rising 1 percent in April. Poults placed were down 1 percent. Eggs in incubators on the first of the month remained down 5 percent in June, marking their seventh consecutive month in the negative. The data suggest that producers are striving 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 5.942 billion pounds, up 5 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.

Turkey poults placed and hatched



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

Whole Turkey Prices Remain Below Historical Averages in 2018

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 July 7, 2018, shows frozen whole hen prices at 83 cents per pound, well below early-July 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.

U.S. Wholesale frozen hen turkey price

Dollars per pound



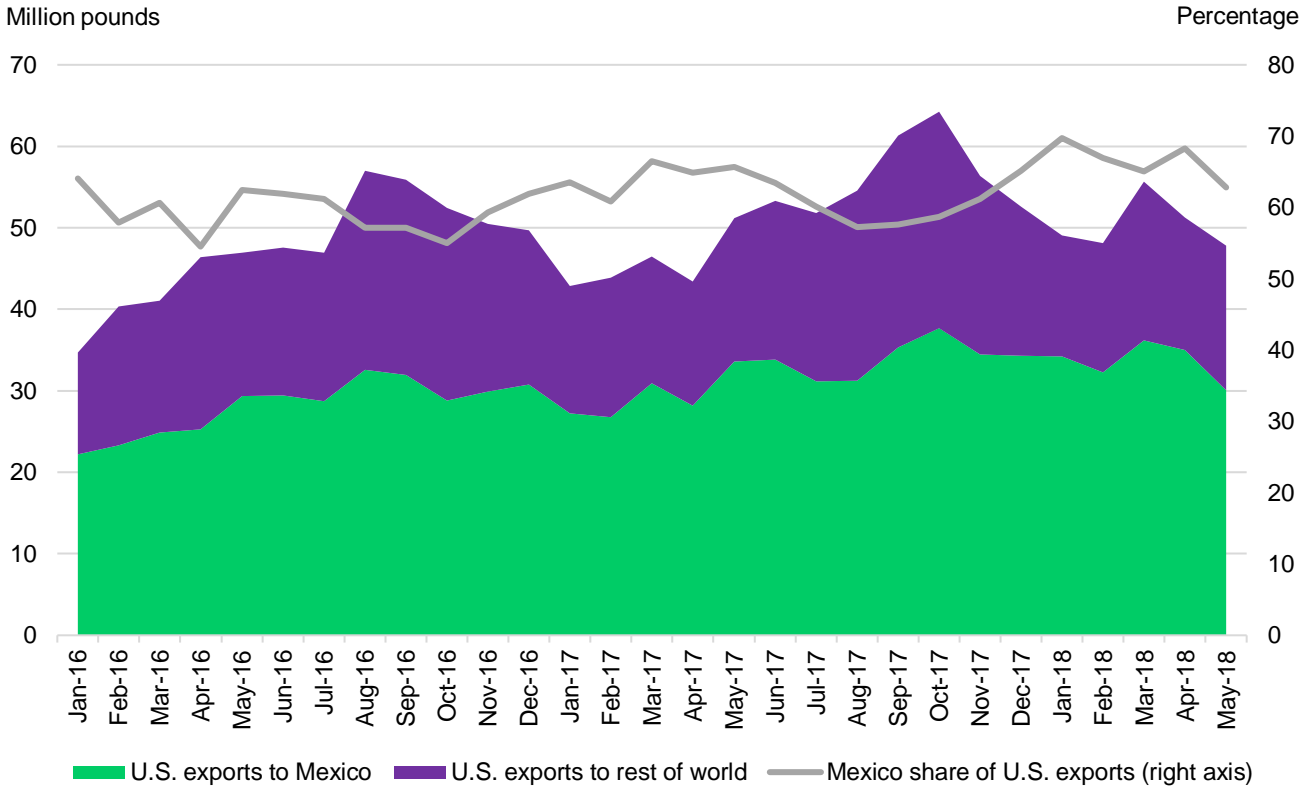
Note: Data are reported weekly through July 7, 2018.

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

Turkey Exports Decrease in May after 8 Months of Positive Growth

May 2018 turkey exports were 7 percent lower than a year earlier, totaling 48 million pounds. Shipments to Mexico were down 11 percent from a year earlier. Mexico remains the largest destination for U.S. turkey shipments, with 30 million pounds shipped in May, or 63 percent of all U.S. shipments. The negative growth rate in May is the first in 8 months and only the second in over a year. 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.

U.S. monthly turkey meat exports to Mexico and rest of world



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

Suggested Citation

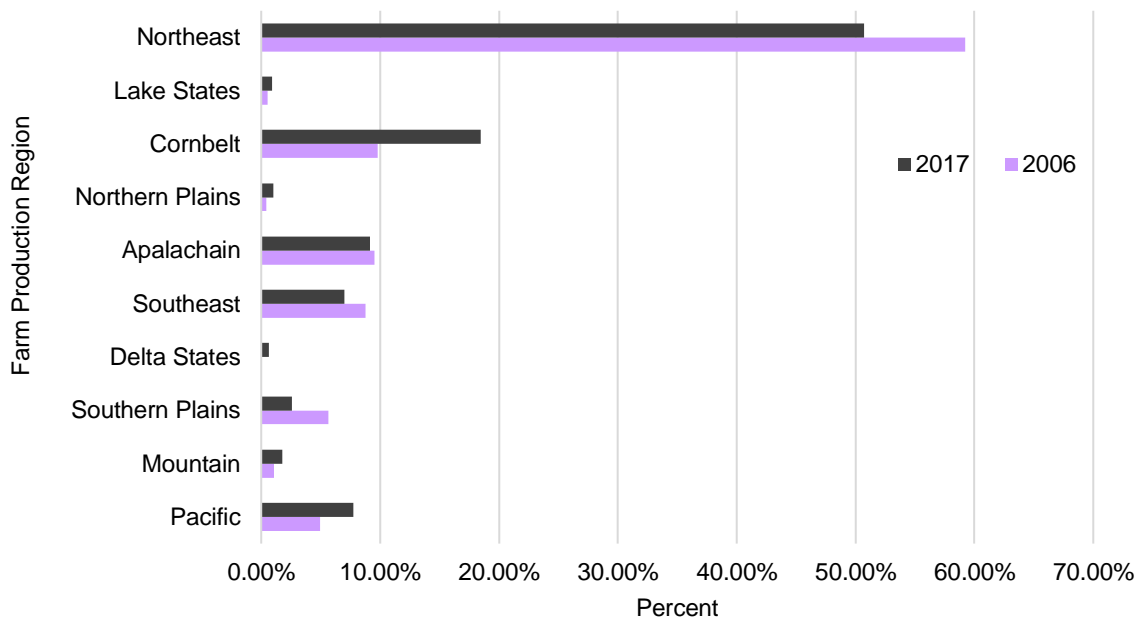
Livestock, Dairy, and Poultry Outlook, LDP-M-289, U.S. Department of Agriculture, Economic Research Service, July 18, 2018

Special Article: A Look at the United States Goat Meat Supply and Use

Keithly Jones

The USDA National Agricultural Statistics Service began its national tracking of meat goat slaughter in both Federal-and State-inspected facilities in 2006, allowing for a more comprehensive look at commercial meat goat slaughter. At that time, of the 750,000 head of goats slaughtered, just under 80 percent were slaughtered under Federal inspection and nearly 60 percent of all goats were slaughtered in the Northeastern United States. Less than 10 percent were slaughtered in each of the other regions of the United States (fig.1). The figure shows that by 2017, the distribution of goats slaughtered throughout the United States had changed only slightly. More than 50 percent of all goats continued to be slaughtered in the Northeast, but the Cornbelt and the Pacific regions were showing increased shares of slaughter.

Figure 1. More that half of all goats are slaughtered in the Northeastern United States

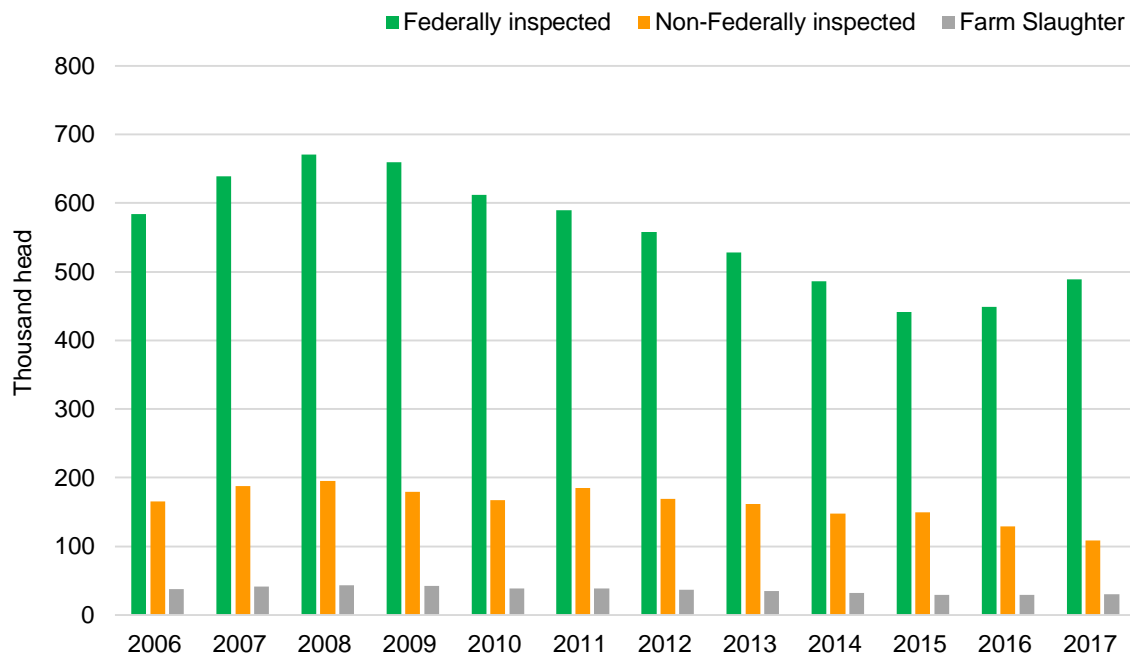


Source: U.S. Department of Agriculture, National Agricultural Service. Compiled by Economic Research Service. States comprising the farm production regions are seen in Appendix table 1.

The Economic Research Service (ERS) compiles and publishes supply and disappearance tables quarterly and annually for beef, veal, pork, and lamb and mutton. These tables provide estimates of the meat available for human consumption, including fresh and processed meat sold through grocery stores and used in restaurants. However, this table is not available for goat meat. This report estimates the domestic supply/availability of goat meat from both production and trade. Unlike some of the major livestock species, goat meat stocks are not tracked separately (goat stocks held in cold storage are likely combined with meats from other minor commodities in “other meat.”). Since it is not possible to separate goat meat stocks from the other minor meats, goat stocks were assumed to be zero for this analysis.

Domestic goat meat supply is calculated as a measure of domestic production plus imports minus exports. Goat meat production data come from three sources: federally inspected slaughter, other non-federally inspected slaughter, and on-farm slaughter (fig. 2). Relative to other major livestock species—hogs, cattle and sheep where federally inspected slaughter comprises 95 to 99 percent—federally inspected goat slaughter has averaged 78 percent per annum of commercial slaughter since 2006 when USDA National Agricultural Statistics Service began its national tracking of meat goat slaughtered in State-inspected facilities. Farm slaughter is assumed to average 5 percent of commercial slaughter. USDA tracks data on the number of goats slaughtered for federally inspected, non-federally inspected and commercial slaughter, along with their corresponding average live weights in each of the categories.

Goats slaughtered in federally, non-federally inspected facilities, and on-farm in the United States



Source: USDA- National Agricultural Statistics Service.

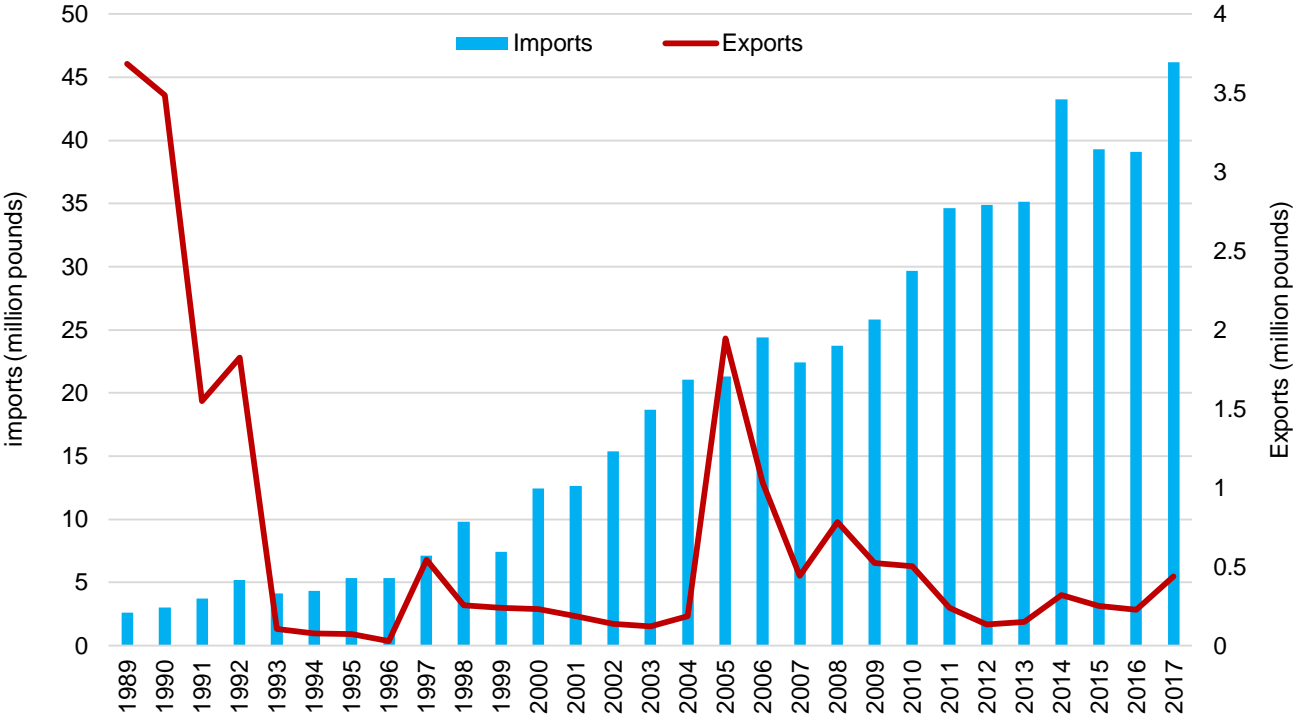
Note: On-Farm slaughter is estimated as 5 percent of the sum of federally inspected and non-federally inspected slaughter.

Production data are calculated on a carcass-weight chilled product basis in pounds of product at the slaughter plant. According to a Cornell University Sheep and Goat Marketing information report, dressed weights for meat goats range from 57 to 63 percent of live weight. Given a midpoint of 60 percent and a 4 percent shrink from hot to chilled carcass, and the number of goats slaughtered, goat meat production is estimated. Estimated U.S. commercial goat meat production since 2006 has ranged between 22.3 and 31.6 million pounds annually (table 1). Although commercial production has registered declines over the past 10 years, much of the decline has been tempered by increasing live weights of animals.

Trade data (imports and exports) are collected by the U.S. Department of Commerce and are available on a product weight basis. USDA-ERS converts trade data into carcass weight for goat meat based on a 1:1 ratio as all goat meat traded is assumed to be bone-in cuts. There is only one Harmonized

Commodity Description and Coding System (H.S. code) applied to traded goat meat. In 1990, the United States was a net exporter of goat meat, but as domestic demand increased, import growth outpaced exports. Increased imports continue to fuel the growth of U.S goat meat supply. In 1990, the United States imported 3 million pounds of goat meat, and by 2017, imports exceeded 46 million pounds, nearly double U.S goat meat production (fig. 3). Australia is the primary supplier of U.S. imported goat meat, supplying more than 95 percent, most of which is frozen. Exports have remained relatively low over the past decade as domestic consumption has grown.

Figure 3. Goat meat imports and exports, 1989 to 2017



Source: U.S. Department of Commerce, Census Bureau, Foreign Trade Statistics.

The total supply of goat meat available for domestic consumption consists largely of production plus imports, as exports tend to be very small (See table 1). In 2006, the estimated total supply/availability for U.S. consumption was 51.4 million pounds. Supply increased through 2014, climbing to as high as 68.2 million pounds. Total supplies fell to below 63 million pounds in 2015 and 2016, but reached a new all-time high of nearly 70 million pounds in 2017.

Table 1. Estimated Supply/Availability of Goat Meat in the United States.

Year	Production ¹				Total production ⁶	Imports ⁷	Exports ⁷	Total supply/availability ⁸
	Commercial ²	Federally inspected ³	Other ⁴	Farm ⁵				
	-----Thousand pounds-----							
2006	26,667	20,867	5,801	1,333	28,001	24,405	1,034	51,372
2007	28,527	22,466	6,061	1,426	29,953	22,412	440	51,924
2008	31,594	23,952	7,642	1,580	33,173	23,730	782	56,122
2009	30,618	23,165	7,453	1,531	32,149	25,809	522	57,435
2010	28,300	21,859	6,441	1,415	29,715	29,652	504	58,864
2011	28,714	21,377	7,337	1,436	30,150	34,627	240	64,537
2012	26,884	20,245	6,639	1,344	28,228	34,905	134	62,999
2013	25,500	19,464	6,035	1,275	26,774	35,132	148	61,758
2014	24,026	17,654	6,372	1,201	25,227	43,246	320	68,154
2015	22,730	15,760	6,970	1,137	23,867	39,284	250	62,900
2016	22,255	16,028	6,227	1,113	23,367	39,111	226	62,252
2017	22,881	17,738	5,144	1,144	24,025	46,191	436	69,780

Sources: USDA-National Agricultural Statistics Service, U.S. Department of Commerce, Census Bureau, Compiled by USDA, Economic Research Service.

¹Production is estimated based on slaughter multiplied by 60% of average commercial live weight minus 4 percent shrinkage from hot to chilled carcass.

²Commercial production equals federally inspected plus other production.

³Federally Inspected are goats slaughtered in plants that transport meat interstate that must employ Federal inspectors to assure compliance with USDA standards. Any State whose commercial plants operate entirely under Federal inspection may still have custom-exempt establishments for which Non-Federally Inspected slaughter estimates are made.

⁴Other equals non-Federal inspection done by State inspectors to assure compliance with individual State standards for the Non-federally Inspected plants. Non-federally inspected plants sell and transport only intrastate. Mobile slaughtering units are excluded and are considered farm slaughter.

⁵Farm production is estimated as 5% of commercial production and includes mobile slaughter on farms and animals slaughtered on farms for home use.

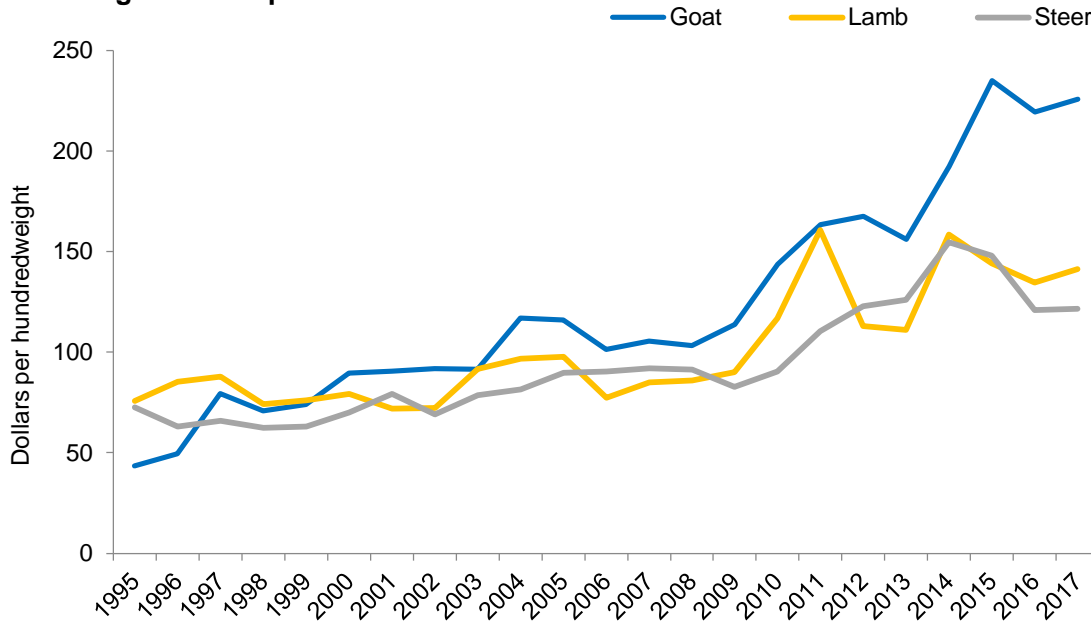
⁶Total production is the sum of commercial production and farm production.

⁷Import and export data are assumed to be bone-in cuts converted to carcass weight equivalent at a 1:1 ratio.

⁸Total supply/availability equals commercial production plus imports minus exports; data on goat meat held in cold storage are not available.

Data on wholesale and retail goat meat prices are unavailable, but auction or slaughter goat prices across weight classes show an increasing trend. Average live auction goat prices at San Angelo, Texas have increased steadily since 1995 and have increased at a faster rate than for other livestock (fig. 4). In 1995, live goats were valued at an average of just over \$40 per hundred pounds (cwt). By 2017, live auction prices had increased nearly fivefold to over \$225 per cwt. Prices fluctuate widely between weight classes, with kids and yearlings in the 40 to 60 pound category attracting the highest prices.

Figure 4. Slaughter goat prices have increased at a faster rate than Slaughter lamb and slaughter steer prices



Goat price: Annual average Slaughter goat prices at San Angelo, Texas, 40 to 120 pounds
 Lamb Price: Annual average Slaughter lamb price at San Angelo, Texas, 100 to 140 pounds.
 Steer price is the 5-area weighted average direct Slaughter Fed steer price, all grades.

Source: USDA, Agricultural Marketing Services; Compiled by ERS.

Although small relative to the major livestock sectors, a change in the regional distribution of goat slaughter has occurred, as evidenced by slight growth in the Cornbelt and Pacific regions of the United States. Despite the decline in U.S. commercial goat meat slaughter over the past three decades, increases in the average live weight at slaughter has helped to lessen production declines. Imports have also expanded fifteen-fold since 1989 and are currently almost twice U.S. production quantities. The rapid increase in imports and gains in goat prices suggest that there may be opportunities for expansion in the U.S. meat goat industry.

Appendix Table 1. Farm production regions of the United States

Northeast	CT	DE	ME	MD	MA	NH	NJ	NY	PA	RI	VT
Lake States	MI	MN	WI								
Corn Belt	IL	IN	IA	MO	OH						
Northern Plains	KS	NE	ND	SD							
Appalachian	KY	NC	TN	VA	WV						
Southeast	AL	FL	GA	SC							
Delta States	AR	LA	MS								
Southern Plains	OK	TX									
Mountain	AZ	CO	ID	MT	NV	NM	UT	WY			
Pacific	CA	OR	WA	AK	HI						