Livestock, Dairy, and Poultry Outlook

Kenneth Mathews
kmathews@ers.usda.gov

Mildred Haley
mhaley@ers.usda.gov

High Exchange Rate Value of the U.S. Dollar Continues To Create a Drag on U.S. Red Meat and Dairy Exports

U.S. trade data released for the month of July suggest that the high-valued U.S. dollar exchange rate continues to create a drag on U.S. exports of red meat and dairy products. USDA lowered its second-half 2015 export forecast for beef by 55 million pounds. While the second-half 2015 forecast for pork exports remains unchanged, July exports were lackluster, about half a percent lower than a year ago. Projected dairy exports were lowered from last month’s forecast on both the milk-fat and skim-solids milk-equivalent bases. While other domestic economic factors work to slow U.S. shipments abroad—strong domestic demand for U.S. beef and dairy products, for example—the high-valued U.S. dollar effectively reduces the competitiveness of U.S. products in foreign markets by raising their prices for foreign buyers. The extent of the appreciation of the dollar—and the challenge that it creates for U.S. animal products exports—is captured by the Federal Reserve’s broad dollar index, graphed below:
**Beef/Cattle:** The USDA National Agricultural Statistics Service’s *Cattle on Feed* reported that July 2015 placements and marketings of cattle on feed in 1,000-plus feedlots were the lowest for July since the series began in 1996. The low marketing number may be due to the fact that many producers opted to keep cattle on feed longer, subsequently delaying marketings. This resulted in a 3-percent year-over-year increase in cattle on feed for August 2015.

**Beef/Cattle Trade:** USDA lowered second-half beef exports by 55 million pounds as the strong U.S. dollar and lower domestic production levels are together slowing shipments abroad. For 2015, U.S. beef exports are expected to be 2.3 billion pounds, 10.3 percent below a year ago. In 2016, beef exports are forecast at almost 2.5 billion pounds, 7.7 percent greater than in 2015.

**Pork/Hogs:** USDA lowered third-quarter pork production by 55 million pounds due to lower than expected slaughter rates and lower average hog dressed weights. The third-quarter live equivalent price of 51-52 percent lean hogs is expected to average $53-$54 per cwt. July pork exports were lackluster at half a percent below exports in July 2014. The Quarterly Hogs and Pigs report will be issued by USDA on September 25th. The report will give September 1 inventory and hog production information.

**Poultry:** The Outbreak of Highly Pathogenic Avian Influenza (HPAI) has had various impacts on the different segments of the U.S. poultry industry. In all cases (broilers, turkeys, and eggs), exports have declined. However, for broilers there was no downward impact on production, so stocks have risen and prices have fallen. Production has fallen for turkeys, but has been mostly offset by lower exports. The impacts on turkey prices vary depending on what percentage of a specific part goes to the export market. Egg production has also declined, and prices for eggs in the shell and egg products have risen sharply. Moving forward, price movements will depend on the gradual resumption of trade to a number of countries and restart of production at HPAI-impacted facilities.

**Poultry Trade:** Broiler, turkey, and egg shipments in July remained down from a year ago. Broiler shipments totaled 502 million pounds in July 2015, a decrease of 21 percent from a year earlier. Turkey shipments decreased 48 percent from a year ago, totaling 40 million pounds, while egg and egg product exports totaled 22 million dozen in July 2015, a 30-percent decrease from the previous July.

**Dairy:** Dairy export forecasts have been lowered due to recent trade data and higher expected competition in global markets. Import forecasts have been raised on a milk-fat milk-equivalent basis. Forecasts for the all-milk price have been raised to $16.80-$17.00 per hundredweight (cwt) for 2015 but lowered to $16.10-$17.10 per cwt for 2016.

## Recent Livestock, Dairy and Poultry Special Articles

Third-Quarter 2015 Fed Cattle Prices Fall

Pasture conditions for most of cattle country have improved compared with last year; however, as of September 8, 2015, the U.S. Drought Monitor reported exceptional drought in the West and moderate to severe drought in eastern Texas. Producers interested in winter grazing, especially in eastern Texas, are likely to be carefully monitoring conditions as the drought may impact their plantings of winter wheat (U.S. winter wheat plantings can be found in upcoming USDA Crop Progress reports).

Backgrounding programs in Oklahoma and much of Texas are reportedly experiencing favorable pasture conditions, and it is likely that cattle are being held back to take advantage of the grazing opportunities. USDA’s Cattle on Feed report, released August 21, 2015, reported U.S. cattle on feed in 1,000-plus feedlots totaled 10 million head, up 3 percent compared with August 2014. July 2015 placements were 1 percent lower than in 2014—the lowest for July since the series began in 1996. The 800-plus-pound category for cattle placed on feed continues to be high, roughly 19 percent above July 2014. These cattle will likely come off feed in the near future, potentially resulting in an upswing in marketings in early 2016.

A reason for the higher cattle on feed numbers could be that producers chose to keep cattle on feed for increased periods. Feed costs are relatively low and the recently widening spread between Choice and Select boxed beef values may be providing incentives for feeding cattle to Choice grades. July 2015 marketings totaled 1.73 million head, 3 percent lower than 2014—like placements, marketings are also the lowest for July since 1996.

Third-quarter fed cattle marketings in 1,000-plus feedlots are likely to be low, as preliminary data indicates third-quarter slaughter could be below a year earlier. Fed steer prices (5-area, direct, total all grades) have fallen; nevertheless, they are above the 4-year average. The first- and second-quarter fed steer prices of 2015 hit record highs. However, July and August of 2015 showed a decline in fed cattle prices compared with 2014 prices. Packer margins were relatively weak during the summer months and packers may have slowed the pace of slaughter to improve their margins. To the extent that there is consumer resistance to the recent record-high beef prices (see Meat Price Spreads for monthly retail values, http://www.ers.usda.gov/data-products/meat-price-spreads.aspx), packer moves to support their margins could put downward pressure on cattle prices. USDA reduced forecasts of fed cattle prices; third-quarter prices are $144-147 per hundredweight (cwt), down roughly $10 compared with this time last year.

Oklahoma National Stockyards feeder cattle prices (KO LS 750 report, http://www.ams.usda.gov/mnreports/ko_ls750.txt) for the week ending August 31, 2015, reported medium number 1 feeder steers weighing 750-800 pounds are ranging around $206-213/cwt—down approximately $10 compared with this time last year. Like the fed cattle market, feeders are also experiencing a downward trend in the third quarter, however, the fourth quarter may see a seasonal upswing in prices.
Lower Cow and Heifer Slaughter Implies Herd Expansion

Commercial heifer and beef cow slaughter continues to track well below year-prior levels, primarily driven by cattle producers’ strong incentive to hold back beef cows and heifers in an effort to expand domestic cow inventory levels. Through the week ending August 29th, federally inspected weekly heifer slaughter is about 14 percent below yea-prior levels while cow slaughter is approximately 18 percent lower than last year. Solid year-over-year reductions in cow and heifer slaughter suggests that expansion efforts are well underway. This being the case, heifers will likely continue to represent an even smaller percentage of total steer and heifer slaughter, and low cow slaughter will remain the norm through the end of the year. In the short term, expansion of the breeding herd should continue to limit the growth in beef production through the remainder of 2015. USDA’s current forecast for 2015 beef production is 23.5 billion pounds, down about 3 percent relative to a year earlier.

Beef Packers Margins Improve on Falling Live Cattle Prices

Beef processing margins are in positive territory after significant losses during most of the summer. Beef packers’ ability to maintain profitable margins while operating below full capacity is not the result of a surge in domestic beef demand; more likely, it is due to the combination of declining live cattle prices and steep reductions in animals being processed on a weekly basis, which has underpinned wholesale beef prices. However, if beef packers’ selective reductions in kills are creating a backlog of fed cattle supplies, when these animals are marketed (presumably in the fourth quarter of 2015), further downward price risk could occur in the live cattle markets. Nonetheless, it appears that packers have more leverage as the spread between fed cattle prices and wholesale beef prices continues to widen. Beef demand is expected to show the normal seasonal break from current levels heading into the fourth quarter as the focus shifts from grilling items to traditional holiday items such as turkeys and hams, easing wholesale beef prices. The price of 50-percent lean beef trimmings has plummeted despite lower overall cattle slaughter levels. The average weekly price for 50-percent lean beef trimmings for the week ending September 11th was quoted around $60/cwt, down about
$93/cwt relative to the same week last year. This decline is not totally unexpected since cattle are record-large, and they are carrying more fat as a result of extended time on pasture and in feedlots. Ninety-percent lean processing beef prices have also eased in recent weeks (below $280/cwt), although the magnitude of declines are less than those in the 50-percent lean beef markets. The price of lean processing meat (90CL) is not likely to collapse thanks to the overall small number of cows being slaughtered and the very strong demand for lean processing meat, which continues to support higher imports.
U.S. Beef Exports Struggle, Strong Demand for Lean Processing Beef Supports Higher Imports

The impact of appreciation of the U.S. dollar on beef trade is twofold. In regard to exports, the relative strength of the dollar against the currencies of major trade partners has been a drag on beef shipments this year. On the flip side, the strengthening dollar has been an influence on the surge in beef imports. The strong dollar relative to other currencies has made the United States an attractive market. Furthermore, the limited availability of lean beef for processing due to low cow slaughter levels and lower overall beef production will continue to support U.S. beef imports.

In July, the United States exported nearly 200 million pounds of beef. Much of the reduction in total beef exports in 2015 can be attributed to overall lackluster demand for high-priced U.S. beef—which, on top of a strengthening dollar, makes U.S. beef even more expensive to foreign buyers. Consequently a number of key markets, including Canada and Mexico, have imported less U.S. beef than the previous year through most of 2015. In addition to the price effects on exports to Asian markets, another possible impediment to export growth in the months ahead is the potential for a slowdown in Asian economies, driven by mounting economic pressures in China. China has a ban on U.S. beef products, but other Asian nations such as Japan, Vietnam, Taiwan, Hong Kong and South Korea are destinations for U.S. beef. Additionally, in Australia, higher slaughter and beef production and record export growth this year have been unfavorable for U.S. beef exports. Given the current dynamics surrounding these exports, it is expected that they will continue to struggle through the remainder of 2015. USDA has revised third- and fourth-quarter beef export forecasts lower, bringing the annual total to 2.3 billion pounds. Regarding next year, exports should begin to recover modestly but will likely remain below 2014 levels.

Strong demand for lean processing beef amid low cow slaughter continues to support robust beef imports. In July, the United States imported around 288 million pounds of beef. The majority has been lean processing beef from Australia and New Zealand, for which both countries are now near their respective tariff rate quota limits. Imports from both Australia and New Zealand are expected to slow down in the fourth quarter as cattle slaughter rates begin to ease and traders manage exports in order to limit exposure to the above-quota duties. It is possible that some volumes of lean beef imports will be placed in bonded storage to avoid incurring additional costs. It is very likely any processed beef placed in bonded storage during late 2015 will be released in early 2016. Fresh/chilled beef imports from Mexico remain robust as July imports were reported close to 39 million pounds, 31 percent above 2014. Although the United States does not import fresh chilled or frozen beef cuts from Brazil, thermally processed beef imports from Brazil continue well above the previous year. Total annual beef imports for 2015 are projected to reach 3.4 billion pounds, while imports in 2016 are forecast to reach a little over 3.0 billion pounds.
USDA Trims Estimates for Hog Slaughter and Average Hog Dressed Weights, Slightly Lowering Third-Quarter Production

USDA reduced its forecast of third-quarter pork production slightly by trimming expected slaughter numbers and average hog dressed weights. Both weekly preliminary slaughter numbers and average dressed weights through the first full week of September have been less than expected. Lower slaughter numbers and dressed weights translate into a small reduction in pork production compared with last month. Third-quarter pork production is expected to be just shy of 6 billion pounds (5.9), which is more than 9 percent above a year earlier when losses from Porcine Epidemic Diarrhea (PEDv) had significantly reduced available hog supplies.

Weekly dressed hog weights for 2015, 2014, and a 3-year average (2011-2013) are graphed in the figure below. The 3-year average (2011-2013) follows a typical pattern for hog weights, dipping lower in the summer and turning upwards in the fall. Hot weather tends to reduce hog appetites. The animals eat less and ultimately weigh less when they are marketed. The cooler weather reignites hog appetites, and weights surge higher. It is notable that while the general seasonal dynamic of 2011-2013 is typical—weights trending downwards in the summer, with recovery in the fall—the level of the average weight series is clearly lighter than 2014 and 2015. Lower average weights during 2011-2013 mostly reflect high feed prices during the period: the calendar year farm price of corn averaged $6.28 per bushel. On the other hand, hog weights in 2014 were atypically high for several reasons: first, corn prices had broken sharply lower by 2014—with $4.11 the average per bushel corn price that year—reducing the cost of weight gain. Moreover, 2014 hog prices largely reflected PEDv-reduced supplies of slaughter hogs, furnishing producers with an incentive to feed hogs with relatively cheap corn to record weights. Feeding animals to higher weights takes more time in the finishing barn. But because PEDv had reduced animal numbers, barn throughput slowed, which allowed extended finishing times for surviving animals. Finally, 2014 was an unusually cool summer, which, together with lower corn prices, higher hog prices, and fewer hogs, makes the bowl-shaped dynamic less distinct in the 2014 weight series.

Hog weights in 2015 appear to be following a more typical pattern, albeit at a higher level than in 2011-2013. This is likely due to lower feed costs and stout packer demand for hogs. Unlike last year, hog weights broke lower in mid-June 2015 and appear to have bottomed out at roughly 209 pounds in August.
July Pork Exports Lackluster

U.S. pork exports in July were 395 million pounds, about half a percent below exports a year ago. At least part of the lethargy in foreign demand for U.S. pork in July was likely due to the continuing drag of the high exchange rate value of the U.S. dollar. The 10 largest buyers of U.S. pork in July are listed below.

For the 16th time since November 2013, Mexico displaced Japan as the largest foreign buyer of U.S. pork. Mexico accounted for 33 percent of July shipments, compared with 28 percent in July 2014. Japan accounted for 26 percent of July shipments both this year and in 2014. It is notable that despite gains in volume, Mexico lags Japan by a wide margin in terms of unit values. So far this year, the unit value of U.S. pork shipments to Mexico has been $0.71 per pound, compared with $1.33 per pound for Japan. The large disparity is likely due, in part, to between-country income disparities and differences in tastes and preferences, as well as to the structure of the Japanese pork import regime. Under WTO rules, the Japanese regime establishes a minimum import price—typically, well above U.S. pork prices—to protect Japanese pork producers.

It is also notable that despite a year-over-year decline of almost 23 percent in the value of the Mexican peso with respect to the U.S. dollar, July shipments to Mexico were 15 percent higher than a year ago. Strong U.S. pork shipments could be substituting, in part, for lower U.S. beef exports to Mexico due to high U.S. beef prices, as well as for lower shipments of U.S. poultry products.

The United States is expected to export 1.175 billion pounds of pork in the third quarter of this year, 7.8 percent higher than in the same period last year. Despite July lethargy, exports are expected to accelerate through the end of the year as U.S. pork production achieves its seasonal highs in the fall-winter period and pork prices decline, partially offsetting the effects of the high-valued U.S. dollar and further incentivizing exports.
### U.S. pork exports to 10 largest foreign destinations, July 2015 and 2014

<table>
<thead>
<tr>
<th>Country</th>
<th>2015 (million lbs)</th>
<th>2014 (million lbs)</th>
<th>Percent change</th>
<th>2015 Export share % of total exports</th>
<th>2014 Export share % of total exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>395.09</td>
<td>396.92</td>
<td>-0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1  Mexico</td>
<td>129</td>
<td>113</td>
<td>15</td>
<td>33</td>
<td>28</td>
</tr>
<tr>
<td>2  Japan</td>
<td>103</td>
<td>104</td>
<td>-1</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>3  Canada</td>
<td>44</td>
<td>45</td>
<td>-3</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>4  China-H.K</td>
<td>35</td>
<td>24</td>
<td>42</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>5  S. Korea</td>
<td>21</td>
<td>15</td>
<td>36</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>6  Australia</td>
<td>17</td>
<td>10</td>
<td>64</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>7  Colombia</td>
<td>9</td>
<td>10</td>
<td>-7</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8  Honduras</td>
<td>6</td>
<td>5</td>
<td>9</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>9  Philippines</td>
<td>4</td>
<td>9</td>
<td>-49</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10 Dominican Rep.</td>
<td>4</td>
<td>4</td>
<td>18</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Broiler Forecasts Lowered for Third and Fourth Quarters

The Highly Pathogenic Avian Influenza (HPAI) outbreak, primarily in the second quarter, resulted in many countries restricting imports of U.S. poultry products. Since the U.S. exports as much as 20 percent of its total broiler meat production, the products normally exported were placed on the domestic market for consumption. In addition, the HPAI outbreak had almost no impact on broiler production. Growth in production plus lower exports raised stocks and reduced prices at the wholesale level. Although the downward pressure on prices was not equally spread over all broiler products, the aggregate impact affected the entire sector. The falling prices and rising stock levels, in turn, have given broiler integrators a strong incentive to begin slowing down broiler production.

The U.S. broiler meat production forecast for second-half 2015 was reduced by 200 million pounds, 75 million pounds in the third quarter and 125 million pounds in the fourth quarter. This lowers the forecast in the second half of 2015 to 20.3 billion pounds, still an increase of 3 percent from the same period in 2014. The reductions are chiefly the result of a lower number of chicks placed for growout, which has been gradually decreasing compared with the same period last year. However, the decline in chicks for growout is expected to be partially offset by continued gains in average bird weights.

With the slowdown in broiler production growth expected to continue into 2016, the production forecast for 2016 was also decreased. Broiler meat production is now forecast at 41.1 billion pounds, down 275 million pounds from the previous forecast and less than 3 percent higher than in 2015.

Broiler meat production in July 2015 was 3.5 billion pounds, 4 percent higher than a year earlier. This increase can be attributed to more birds slaughtered and a higher average liveweight at slaughter. The number of birds slaughtered in July was 762 million, up 3 percent from the previous year. Over the first 7 months of 2015, the total number of birds slaughtered was 2 percent above the same period a year earlier. In addition to the increase in birds slaughtered in July, the average liveweight at slaughter was 6.05 pounds, 2 percent above the previous year.

Over the next several months, the number of birds going to slaughter is expected to be only slightly higher than the previous year and most of the growth in broiler production is expected to come from higher average weights at slaughter.

For the 5-week period ending September 5, the National Agricultural Statistics Service reported that an average of 170 million broiler chicks were placed weekly for growout. This is less than 1 percent higher than the average number of chicks placed for growout during a similar period in 2014.

Stocks 22 Percent Higher at the End of July

Stocks of broiler products at the end of July totaled 729 million pounds, 38 million pounds higher than at the end of June and 22 percent higher than a year earlier. Over the last 5 months, stock levels have ranged between 21 and 32 percent higher than the previous year. The growth in stocks from the end of July was due to
increases in a number of categories, but stocks of leg quarters and wings increased the most of individual parts. Stocks of broiler parts in the “Other” category increased the most in terms of volume (19 million pounds higher than at the end of July). Stocks of whole birds rose less than 1 million pounds from the previous month, but stock levels were over 50 percent higher than the previous year. Except for wings, stock levels were above year-earlier levels in all other categories, in all cases significantly higher. With the increases in July, the ending stocks forecast for the third and fourth quarters of 2015 were both increased. The ending stocks forecast for 2015 was increased by 40 million pounds to 765 million, about 12 percent higher than the previous year.

**Broiler Prices Continue To Decline in August**

With production still higher than the previous year and increases in cold storage levels, wholesale prices for almost all broiler products have continued to decline. In August, prices for whole birds fell to $0.83 per pound, 17 percent below the previous year. Almost all broiler parts were lower, with prices for boneless/skinless breasts in the Northeast market down 24 percent from the previous year and other breast meat products also down significantly. Leg meat products were impacted even more, with prices for leg quarters in the Northeast market down 50 percent from August 2014 to only $0.25 per pound. There were also large price declines for thigh meat and drumsticks. These were all consistent with levels at the beginning of the month in cold storage holdings. Wings are the only category for which prices have remained above a year earlier, a reflection of cold storage holdings where wing stocks at the beginning of August were lower than a year earlier. Until slowing production growth and gradually increasing exports can bring broiler supplies more into line with demand, lowering cold storage levels, prices are expected to remain well below the previous year.

**Turkey Production Falls 11 Percent in July**

The HPAI outbreak impacted the domestic turkey industry, primarily in Minnesota, the largest producing State. Lower production raised prices, but this was partially offset by declines in exports. As in the broiler market, the impact was not uniform among the different turkey products, but prices for the products are generally higher. Production was reduced due to the number of birds lost to HPAI, but producers are trying to bring production back to earlier levels.

Turkey meat production in July was 448 million pounds, down 11 percent from a year earlier. This lower than expected production was reflected in reductions in the second-half production forecast. The second-half forecast was reduced by a total of 65 million pounds to 2.75 billion pounds, 8 percent lower than the previous year. The decrease in July was due to a combination of a 7-percent decrease in the number of birds slaughtered and a decline of 4 percent in the average liveweight at slaughter to 29 pounds. The drop in average weights was likely the result of processors bringing birds to slaughter now that normally would be slaughtered slightly later in the year. Turkey liveweights have been trending higher over time and a year-over-year decline is relatively rare; one this size has not happened in the last 15 years.
Turkey Stocks at 494 Million Pounds

Over the last 2 months the declines in turkey production have been basically offset by lower turkey exports, leaving stock levels almost unchanged from a year earlier. At the end of July, cold storage holdings for all turkey products were 494 million pounds, less than 1 percent higher than a year earlier. The lack of change from the previous year reflects gains in whole birds, breast meat, and legs being offset by lower stocks of mechanically deboned meat (MDM) products, as well as of the Other and Unclassified categories.

With only a small difference in turkey cold storage holdings from the previous year, at the end of July the ending stocks forecast for the third quarter was moved higher to 475 million pounds, only slightly lower than the previous year. However, the ending stocks forecast for the fourth quarter was lowered to 190 million pounds as holiday demand will likely reduce stocks in the face of a reduced fourth-quarter production forecast.

In August, prices for whole frozen hen turkeys averaged $1.27 per pound, 17 cents (16 percent) higher than a year earlier. Prices for frozen whole hen turkeys on a year-over-year basis have been higher than the previous year for the last 5 months after being slightly lower than the previous year in first-quarter 2015. The forecast for whole hens in the third and fourth quarters are for prices to continuing to be well above year-earlier levels. For 2016, prices are forecast to be higher in the first half of the year, but then to move lower than the previous year in the second half.

Price changes for turkey parts were mixed, with some prices well above year-earlier levels and others lower. Prices for breast meat products have generally been stronger over the July-August period, along with prices for MDM products, while prices for wings and leg meat (drumsticks and thighs) have generally been lower. With lower turkey production forecast for the third and fourth quarters and lower stocks also forecast, prices for many turkey parts will continue to face some upward pressure. However, the impact of these changes will vary according to how dependent the specific parts are on export sales.

Table Egg Flock Increased in July

The HPAI outbreak severely impacted egg production, particularly in Iowa, the largest egg-producing State. The result was lower production that more than offset the decline in exports and resulted in a surge in egg prices. The higher prices have led a number of countries to begin exporting eggs to the United States.

The total U.S. table egg layer flock increased to 271 million as of August 1st, a slight increase from 270 million at the beginning of July but still down from pre-outbreak levels. Table egg production totaled 544 million dozen in July, down 12 percent from a year earlier. Hatching egg production totaled 95 million dozen, an increase of 4 percent from July 2014. The 2015 forecast for table egg production was reduced by 50 million dozen to 6.8 billion dozen while the 2016 forecast remains unchanged at 7.0 billion dozen. The forecast for hatching egg production was lowered by 10 million dozen to 1.1 billion dozen, while 2016 hatching production forecast remains at 1.1 billion dozen.
As a result of lower production, table egg prices have stayed far above normal levels since the outbreak began. The price of a dozen large grade A eggs in the New York market averaged $2.74 in August, up 104 percent from a year earlier. The 2015 forecast for grade A large eggs in the New York market stands at $1.99-$2.03 per dozen and is expected to average $1.64-$1.78 in 2016.
Broiler shipments dropped 21 percent in July compared with a year earlier, totaling 502 million pounds. Exports to Mexico, the United States’ largest market, declined by 5 percent from July 2014 levels at 135 million pounds. National bans by China, Russia, and South Korea continue to impact exports. While most major markets were down from a year earlier, exports to Canada increased by 23 percent to 37 million pounds. Shipments to Iraq and Turkey also increased in July, with both nations up over 100 percent compared with a year earlier. The forecast for 2015 broiler exports was reduced 125 million pounds to 6.72 billion pounds as the impact of trade bans is expected to persist for much of 2015, while the forecast for 2016 was reduced to 7.15 billion pounds.

**Turkey Exports Drop in July from a Year Earlier**

In July, turkey exports totaled 40 million pounds, 48 percent lower than the previous July. The decrease was mainly due to a sharp decline in exports to Mexico, the largest market for U.S. turkey products. The 29 million pounds shipped to Mexico in July were 49 percent lower than the previous July. In addition, there was a lesser decline in exports to China, which banned imports from the entire United States in January. Prior to the ban, China had been the second largest destination for turkey exports. The overall decline in exports in July is likely due to the decline in production caused by HPAI outbreaks in spring 2015 and bans on imports from U.S. States where there have been outbreaks. The forecast for 2015 turkey exports remains at 542 million pounds, and the 2016 forecast is unchanged at 740 million pounds.
Egg Exports Down in July

Total egg exports (shell eggs and egg products) reached the shell egg equivalent of 22 million dozen in July, 30 percent lower than the previous year. The decline was primarily due to a sharp decrease in exports to Mexico, Japan, and Hong Kong. Shipments to Mexico were 48 percent lower in July compared with a year earlier, while shipments to Japan and Hong Kong fell by 53 percent and 70 percent, respectively. In contrast, shipments to Canada increased by 7 percent compared with a year earlier, totaling 10 million dozen. Egg exports in 2015 are now expected to total 317 million dozen as decreased production, high domestic prices, and trade bans are expected to limit exports. The forecast for 2016 exports is now 350 million dozen, a reduction of 20 million dozen from last month.
Recent Developments in Dairy Markets

![Graph: Commercial exports of dairy products on milk-equivalent bases]

Dairy exports fell from June to July on both the milk-fat and skim-solids milk-equivalent bases, reflecting weak global demand and competition from foreign countries. Products with significant month-over-month declines in exports included milk powder, fresh cheese, and cream.

Dairy imports increased from June to July on a milk-fat milk-equivalent basis. Products with significant month-over-month increases in imports included butter, anhydrous milk fat (AMF), and cheese. On a skim-solids basis, imports declined on a month-over-month basis, with imports of milk protein concentrate (MPC) showing the greatest decline.

The U.S. domestic nonfat dry milk price (NDM) averaged $0.744 per pound in August, the lowest monthly price since June 1988. The price reached a low point of $0.736 per pound for the week ending August 22 but increased to $0.755 for the week ending September 5. The domestic dry whey price averaged $0.311 per pound in August, the lowest monthly level since September 2009. The price fell from $0.355 for the week ending August 8 to $0.269 for the week ending September 5. Export prices of major competitors for skim milk powder (SMP) and dry whey were similar for August. SMP prices for Oceania and Western Europe were $0.737 and $0.798 per pound, respectively. The Western Europe dry whey export price for August was $0.303 per pound.

---

1 From 1949 through 2014, dairy prices were floored through a price support program. The Government stood ready to purchase basic dairy commodities at support-price levels. The program was repealed by the Agricultural Act of 2014. In recent years before the end of the program, the support price for NDM was $0.80 per pound.
In contrast to NDM and dry whey, butter showed large differences between the August U.S. domestic price and foreign export prices. The U.S. domestic price was $2.044 per pound, while the Oceania and Western Europe export prices were $1.24 and $1.28 per pound, respectively. The over-quota tariff for butter is about $0.70 per pound. With large gaps between foreign and domestic prices, some importers have found it economical to import at the over-quota tariff rate. In recent months, most of the butter was imported at the relatively high over-quota tariff rate. In recent weeks, domestic butter prices have moved further upward, reaching $2.229 for the week ending September 5, as reported in the USDA National Dairy Product Sales Report. The domestic cheddar cheese price in August was $1.739 per pound, notably higher than the Oceania export price of $1.35 per pound, but not high enough to attract substantial quantities of over-quota imports at the high-tier tariff for cheddar cheese of about $0.58 per pound.

2 Tariff rate quotas (TRQs) allow imports at a relatively low tariff level within a set quota. Imports outside of the quota are charged a higher over-quota rate. According to the Dairy Monthly Imports circular published by the USDA Foreign Agricultural Service, the January-July TRQ fill rate was 73 percent for butter. A license is required for imports of most dairy products. Importers importing without a license would pay the higher rate.
USDA National Agricultural Statistics Service (NASS) revised milk production higher for June, increasing milk cows by four thousand head and yields by four pounds per cow. Milk production in July was 1.2 percent higher than the previous year, larger than the 0.9 percent year-over-year increase in June.

*Feed Price Situation for Dairy*

The 2015/16 forecast for corn is raised from last month to $3.45-$4.05 per bushel. The soybean meal price forecast is unchanged at $310-$350 per short ton. The alfalfa hay price fell from $178 to $169 per short ton from June to July.

*Dairy Forecasts for 2015*

With low international prices and weaker exports in July, dairy export forecasts for 2015 have been lowered from last month’s forecasts to 9.1 billion pounds on a milk-fat basis (-0.7 billion pounds) and to 38.6 billion pounds on a skim-solids basis (-0.9 billion pounds). Forecasts for imports have been raised to 5.9 billion pounds on a milk-fat basis (+0.2 billion pounds) but are unchanged at 6.6 billion pounds on a skim-solids basis.

Based on recent data, the milk production forecast for 2015 has been increased to 208.9 billion pounds, 0.1 billion pounds higher than forecast last month and a year-over-year increase of 1.4 percent. Milk cows are forecast at 9.320 million head, and milk per cow at 22,420 pounds.

The forecast for domestic commercial disappearance on a milk-fat basis has been increased to 203.8 billion pounds (+0.8 billion pounds), largely due to expectations of greater demand for butter and cheese. The forecast for domestic commercial disappearance on a skim-solids basis has been raised to 175.9 billion pounds (+1.0 billion pounds), based upon higher expected demand for NDM and cheese.

With recent higher prices for butter and the higher expected demand for butterfat products, the 2015 butter price forecast has been raised to $1.915-$1.955 per pound. The NDM price is forecast at $0.880-0.900 per pound, with an expectation of a rebound in the remainder of the year. The cheese price is forecast at $1.645-$1.665 per pound, an increase from last month, and the whey price is forecast at $0.380-$0.400, a decrease from last month.

The 2015 Class III milk price forecast is lowered to $15.80-16.00 per cwt due to the lower whey price forecast. With the higher price forecasts for butter and NDM, the Class IV milk price forecast is raised to $13.55-$13.85. The higher Class IV milk price more than offsets the lower Class III milk price, resulting in an all-milk price forecast of $16.80-$17.00 per cwt, an increase from the $16.75-$16.95 forecast last month.

*Dairy Forecasts for 2016*

Lower exports of dairy products, compared to last month’s forecasts, are projected to continue in 2016. Commercial exports are projected at 10.0 billion pounds (-0.7 billion pounds) on a milk-fat basis and 39.5 billion pounds (-0.2 billion pounds) on a skim-solids basis. The forecast for imports on a milk-fat basis have been raised to
5.7 billion pounds (+0.3 billion pounds), while the forecast for imports on a skim-solids basis is unchanged at 6.4 billion pounds.

The milk production forecast for 2016 is 213.0 billion pounds, unchanged from last month. The forecast for domestic commercial disappearance on a milk-fat basis has been raised to 207.8 billion pounds (+1.1 billion pounds) due to higher expectations of butter demand and, to a lesser extent, cheese demand. The forecast for commercial disappearance on a skim-solids basis has been raised to 178.6 billion pounds (+0.2 billion pounds). The forecasts for ending stocks have been raised by 0.1 billion pounds on a milk-fat basis and are unchanged on a skim-solids basis.

With continued firm expected butter demand, the forecast for the 2016 butter price has been raised to $1.785-$1.915. The cheese price forecast has been lowered to $1.590-$1.690, as higher expected cheese production may pressure prices despite growing domestic demand. The NDM price forecast of $0.950-$1.020 is unchanged from last month. The dry whey price forecast has been lowered to $0.345-$0.375, reflecting relatively weak domestic demand and lower expectations for exports.

With lower cheese and whey price forecasts, the Class III price forecast for 2016 is lowered to $15.00-$16.00 per cwt. With the higher expected butter price forecast, the Class IV price has been raised to $13.60-$14.70 per cwt. The lower projected Class III price more than offsets the higher Class IV price, resulting in an all-milk price forecast of $16.10-$17.10 per cwt, a reduction from $16.40-$17.40 forecast last month.

**Enrollment in Margin Protection Program for Dairy Producers**

The Margin Protection Program for Dairy Producers (MPP-Dairy) is a voluntary risk management program that offers protection to dairy producers when the difference between the all-milk price and the average feed cost (the margin) falls below a specified dollar amount selected by the producer. The deadline for enrolling in MPP-Dairy for 2016 is September 30, 2015. A news release concerning enrollment is available at http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=ner&newstype=newsrel&type=detail&item=nr_20150903_rel_0131.html.
Meat Price Spreads, http://www.ers.usda.gov/data-products/meat-price-spreads.aspx, provides monthly average price values, and the differences among those values, at the farm, wholesale, and retail stages of the production and marketing chain for selected cuts of beef, pork, and broilers. In addition, retail prices are provided for beef and pork cuts, turkey, whole chickens, eggs, and dairy products.

Livestock and Meat Trade Data, http://www.ers.usda.gov/data-products/livestock-meat-domestic-data.aspx, contains monthly and annual data for the past 1-2 years for imports and exports of live cattle and hogs, beef and veal, lamb and mutton, pork, broiler meat, turkey meat, and shell eggs. The tables report physical quantities, not dollar values or unit prices. Breakdowns by major trading countries are included.

Data Products

E mail Notification

Readers of ERS outlook reports have two ways they can receive an e-mail notice about release of reports and associated data.

• Receive timely notification (soon after the report is posted on the web) via USDA’s Economics, Statistics and Market Information System (which is housed at Cornell University’s Mann Library). Go to http://usda.mannlib.cornell.edu/MannUsda/aboutEmailService.do and follow the instructions to receive e-mail notices about ERS, Agricultural Marketing Service, National Agricultural Statistics Service, and World Agricultural Outlook Board products.

• Receive weekly notification (on Friday afternoon) via the ERS website. Go to http://www.ers.usda.gov/subscribe-to-ers-e-newsletters.aspx and follow the instructions to receive notices about ERS outlook reports, Amber Waves magazine, and other reports and data products on specific topics. ERS also offers RSS (really simple syndication) feeds for all ERS products. Go to http://www.ers.usda.gov/rss/ to get started.

Related Websites


The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and, where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual’s income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA’s TARGET Center at (202) 720-2600 (voice) and (202) 720-6382 (TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contact Information

Ken Mathews (coordinator, cattle/beef and veal)  (202) 694-5183  kmathews@ers.usda.gov
Sahar Angadjivand (beef/cattle and veal)  (202) 694-5187  sangadjivand@ers.usda.gov
Seanicca Edwards (beef/cattle and beef/cattle trade)  (202) 694-5333  seanicca.edwards@ers.usda.gov
Alex Melton (poultry trade)  (202) 694-5409  awmelton@ers.usda.gov
Mildred M. Haley (coordinator, hogs/pork)  (202) 694-5176  mhaley@ers.usda.gov
David J. Harvey (poultry, eggs)  (202) 694-5177  djharvey@ers.usda.gov
David J. Harvey (aquaculture)  (202) 694-5177  djharvey@ers.usda.gov
Roger Hoskin (dairy)  (202) 694-5148  rhoskin@ers.usda.gov
Jerry Cessna (dairy)  (202) 694-5171  jgcessna@ers.usda.gov
Keithly Jones (sheep and goats)  (202) 694-5172  kjones@ers.usda.gov
Carolyn Liggon (web publishing)  (202) 694-5056  cvliggon@ers.usda.gov

Subcription Information

Subscribe to ERS e-mail notification service at http://www.ers.usda.gov/subscribe-to-ers-e-newsletters.aspx to receive timely notification of newsletter availability. Printed copies can be purchased from the USDA Order Desk by calling 1-800-363-2068 (specify the issue number or series SUB-LDPM-4042)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef</td>
<td>6,410</td>
<td>6,599</td>
<td>6,736</td>
<td>6,400</td>
<td>26,195</td>
<td>6,282</td>
</tr>
<tr>
<td>Pork</td>
<td>5,719</td>
<td>5,370</td>
<td>5,484</td>
<td>6,100</td>
<td>22,758</td>
<td>5,898</td>
</tr>
<tr>
<td>Lamb and mutton</td>
<td>56</td>
<td>40</td>
<td>36</td>
<td>37</td>
<td>149</td>
<td>39</td>
</tr>
<tr>
<td>Broilers</td>
<td>9,290</td>
<td>9,809</td>
<td>9,542</td>
<td>8,850</td>
<td>37,202</td>
<td>9,089</td>
</tr>
<tr>
<td>Turkeys</td>
<td>1,402</td>
<td>1,471</td>
<td>1,493</td>
<td>1,501</td>
<td>4,971</td>
<td>1,560</td>
</tr>
<tr>
<td>Total red meat &amp; poultry</td>
<td>23,011</td>
<td>23,114</td>
<td>23,395</td>
<td>23,226</td>
<td>92,746</td>
<td>22,865</td>
</tr>
<tr>
<td>Table eggs, million</td>
<td>1,631</td>
<td>1,641</td>
<td>1,665</td>
<td>1,715</td>
<td>6,652</td>
<td>1,684</td>
</tr>
<tr>
<td>Beef</td>
<td>14.1</td>
<td>14.5</td>
<td>14.6</td>
<td>14.0</td>
<td>57.3</td>
<td>14.0</td>
</tr>
<tr>
<td>Pork</td>
<td>11.4</td>
<td>11.1</td>
<td>11.0</td>
<td>12.2</td>
<td>45.7</td>
<td>11.1</td>
</tr>
<tr>
<td>Lamb and mutton</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Broilers</td>
<td>21.5</td>
<td>21.4</td>
<td>20.8</td>
<td>20.1</td>
<td>82.9</td>
<td>20.1</td>
</tr>
<tr>
<td>Turkeys</td>
<td>3.5</td>
<td>3.5</td>
<td>4.0</td>
<td>3.6</td>
<td>4.1</td>
<td>4.9</td>
</tr>
<tr>
<td>Total red meat &amp; poultry</td>
<td>51.2</td>
<td>51.2</td>
<td>51.0</td>
<td>51.0</td>
<td>204.5</td>
<td>49.3</td>
</tr>
<tr>
<td>Eggs, number</td>
<td>61.3</td>
<td>61.5</td>
<td>62.8</td>
<td>64.3</td>
<td>249.9</td>
<td>63.2</td>
</tr>
<tr>
<td>Market prices</td>
<td>110.07</td>
<td>112.79</td>
<td>114.05</td>
<td>121.99</td>
<td>114.73</td>
<td>121.26</td>
</tr>
<tr>
<td>Choice steers, 5-area Direct, $/cwt</td>
<td>127.20</td>
<td>131.09</td>
<td>134.74</td>
<td>141.93</td>
<td>133.74</td>
<td>152.81</td>
</tr>
<tr>
<td>Cutter Cows, National L.E., $/cwt</td>
<td>68.66</td>
<td>74.88</td>
<td>66.11</td>
<td>63.54</td>
<td>68.30</td>
<td>76.57</td>
</tr>
<tr>
<td>Choice slaughter lambs, San Angelo, $/cwt</td>
<td>174.66</td>
<td>157.99</td>
<td>161.13</td>
<td>148.61</td>
<td>160.60</td>
<td>145.53</td>
</tr>
<tr>
<td>Barrows &amp; gilts, N. base, l.e. $/cwt</td>
<td>59.94</td>
<td>68.80</td>
<td>71.06</td>
<td>66.30</td>
<td>61.87</td>
<td>59.21</td>
</tr>
<tr>
<td>Broilers, 12 City, cents/lb</td>
<td>80.20</td>
<td>83.00</td>
<td>78.20</td>
<td>78.00</td>
<td>79.90</td>
<td>85.10</td>
</tr>
<tr>
<td>Eggs, New York, cents/doz.</td>
<td>105.80</td>
<td>106.60</td>
<td>117.20</td>
<td>133.20</td>
<td>140.60</td>
<td>140.30</td>
</tr>
<tr>
<td>U.S. trade, million lb</td>
<td>633</td>
<td>702</td>
<td>766</td>
<td>683</td>
<td>2,785</td>
<td>558</td>
</tr>
<tr>
<td>Beef &amp; veal exports</td>
<td>461</td>
<td>593</td>
<td>548</td>
<td>544</td>
<td>2,057</td>
<td>582</td>
</tr>
<tr>
<td>Beef &amp; veal imports</td>
<td>40</td>
<td>48</td>
<td>51</td>
<td>54</td>
<td>162</td>
<td>38</td>
</tr>
<tr>
<td>Pork exports</td>
<td>1,248</td>
<td>1,208</td>
<td>1,260</td>
<td>1,481</td>
<td>1,519</td>
<td>1,442</td>
</tr>
<tr>
<td>Pork imports</td>
<td>201</td>
<td>195</td>
<td>194</td>
<td>213</td>
<td>803</td>
<td>207</td>
</tr>
<tr>
<td>Broiler exports</td>
<td>1,226</td>
<td>1,298</td>
<td>1,364</td>
<td>1,479</td>
<td>1,597</td>
<td>1,712</td>
</tr>
<tr>
<td>Broiler imports</td>
<td>159</td>
<td>171</td>
<td>173</td>
<td>199</td>
<td>703</td>
<td>180</td>
</tr>
<tr>
<td>Live swine imports (thousand head)</td>
<td>1,452</td>
<td>1,429</td>
<td>1,407</td>
<td>1,398</td>
<td>5,793</td>
<td>608</td>
</tr>
</tbody>
</table>

Note: Forecasts are in bold.


For further information, contact Mildred M. Haley, (202) 694-5176, mhaley@ers.usda.gov

Updated 9/17/2015


Economic Research Service, USDA

21
## Dairy Forecasts

**2014** | **2015** | **2016**
---|---|---
**III** | **IV** | **Annual** | **III** | **IV** | **Annual** | **III** | **IV** | **Annual**

### Milk Cows (thous.) 1/
- 9,270 | 9,287 | 9,256 | 9,305 | 9,320 | 9,325 | 9,320 | 9,320 | 9,315 | 9,310

### Milk per Cow (pounds)
- 5,520 | 5,487 | 22,260 | 5,583 | 5,757 | 5,550 | 5,530 | 22,420 | 5,715 | 5,840 | 22,880

### Milk Production (bil. pounds)
- 51.2 | 51.0 | 206.0 | 51.9 | 53.7 | 51.7 | 51.6 | 208.9 | 53.3 | 54.4 | 213.0

### Farm Use
- 0.2 | 0.2 | 1.0 | 0.2 | 0.2 | 0.2 | 0.2 | 1.0 | 0.2 | 0.2 | 1.0

### Milk Marketing
- 50.9 | 50.7 | 205.1 | 51.7 | 53.4 | 51.5 | 51.3 | 207.9 | 53.0 | 54.2 | 212.1

### Milkfat (bil. pounds milk equiv.)
- 50.9 | 50.7 | 205.1 | 51.7 | 53.4 | 51.5 | 51.3 | 207.9 | 53.0 | 54.2 | 212.1

### Beginning Commercial Stocks
- 13.5 | 12.2 | 11.2 | 11.2 | 13.3 | 15.6 | 13.9 | 13.9 | 12.1 | 14.7 | 12.1

### Imports
- 1.1 | 1.5 | 4.3 | 1.2 | 1.3 | 1.5 | 1.9 | 5.9 | 1.3 | 1.3 | 5.7

### Total Supply
- 65.6 | 64.5 | 222.6 | 64.2 | 68.0 | 68.5 | 67.1 | 225.0 | 66.4 | 70.2 | 229.9

### Commercial Exports
- 2.8 | 2.3 | 12.4 | 2.4 | 2.5 | 2.3 | 2.0 | 9.1 | 2.3 | 2.6 | 10.0

### Ending Commercial Stocks
- 12.2 | 11.2 | 11.2 | 13.3 | 15.6 | 13.9 | 12.1 | 12.1 | 14.7 | 15.7 | 12.1

### Net Removals
- 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0

### Commercial Use
- 50.6 | 51.0 | 196.9 | 48.5 | 50.0 | 52.4 | 53.0 | 203.8 | 49.5 | 51.9 | 207.8

### Skim Solids (bil. pounds milk equiv.)
- 50.9 | 50.7 | 205.1 | 51.7 | 53.4 | 51.5 | 51.3 | 207.9 | 53.0 | 54.2 | 212.1

### Beginning Commercial Stocks
- 13.3 | 12.3 | 11.7 | 13.1 | 13.7 | 14.6 | 13.6 | 13.6 | 13.9 | 13.9 | 13.2

### Imports
- 1.5 | 1.5 | 5.6 | 1.4 | 1.5 | 1.7 | 2.0 | 6.6 | 1.5 | 1.6 | 6.4

### Total Supply
- 65.7 | 64.5 | 222.4 | 66.2 | 68.0 | 67.8 | 69.9 | 227.7 | 67.7 | 69.6 | 231.6

### Commercial Exports
- 9.3 | 9.0 | 39.1 | 8.8 | 10.7 | 9.7 | 9.3 | 38.6 | 9.2 | 10.3 | 39.5

### Ending Commercial Stocks
- 12.3 | 13.1 | 13.1 | 13.7 | 14.6 | 13.6 | 13.2 | 13.2 | 13.9 | 15.0 | 13.5

### Net Removals
- 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0

### Commercial Use
- 44.1 | 42.4 | 170.2 | 43.7 | 43.3 | 44.5 | 44.4 | 175.9 | 44.5 | 44.4 | 178.6

### Milk Prices (dol./cwt) 2/
- **All Milk**
  - 24.40 | 22.77 | 23.97 | 17.00 | 16.70 | 16.90 | 16.60 | 16.80 | 15.60 | 15.45 | 16.10
  - -17.10 | -17.10 | -17.00 | -16.40 | -16.45 | -17.10
- **Class III**
  - 22.82 | 21.19 | 22.34 | 15.73 | 16.24 | 16.00 | 15.15 | 15.80 | 14.40 | 14.70 | 15.00
  - -16.20 | -15.65 | -16.00 | -15.20 | -15.70 | -16.00
- **Class IV**

### Product Prices (dol./pound) 3/
- **Cheddar Cheese**
  - -1.725 | -1.700 | -1.665 | -1.640 | -1.660 | -1.690
- **Dry Whey**
  - 0.683 | 0.625 | 0.654 | 0.529 | 0.444 | 0.310 | 0.245 | 0.380 | 0.285 | 0.335 | 0.345
  - -0.330 | -0.275 | -0.400 | -0.315 | -0.365 | -0.375
- **Butter**
  - 2.574 | 2.140 | 2.136 | 1.647 | 1.838 | 2.100 | 2.100 | 1.915 | 1.795 | 1.815 | 1.785
  - -2.140 | -2.180 | -1.955 | -1.905 | -1.945 | -1.915
- **Nonfat Dry Milk**
  - 1.707 | 1.379 | 1.768 | 1.024 | 0.948 | 0.775 | 0.780 | 0.880 | 0.790 | 0.885 | 0.950
  - -0.795 | -0.820 | -0.900 | -0.850 | -0.955 | -1.020

---

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 “National Dairy Products Sales Report”.