DATE: November 9, 2018
TO: Directors & Members
FROM: Kevin Abernathy, General Manager

MPC Friday Market Update

<table>
<thead>
<tr>
<th>CHICAGO CHEDDAR CHEESE</th>
<th>CHICAGO AA BUTTER</th>
<th>NON-FAT DRY MILK</th>
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</thead>
<tbody>
<tr>
<td>Blocks</td>
<td>$0.0775</td>
<td>$1.3800</td>
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<tr>
<td>Barrels</td>
<td>$0.0350</td>
<td>$1.3050</td>
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<tr>
<td>Weekly Average, Cheddar Cheese</td>
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<tr>
<td>Blocks</td>
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<td>$1.4220</td>
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<td>Barrels</td>
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<td>$1.3180</td>
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<td>Weekly Change</td>
<td>- $0.1075</td>
<td>$2.1925</td>
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<tr>
<td>Weekly Average</td>
<td>- $0.0415</td>
<td>$2.2245</td>
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</tbody>
</table>

Dairy Market News w/e 11/09/18 $0.4563
National Plants w/e 11/03/18 $0.4691

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California Federal Milk Marketing Order Price Projections

<table>
<thead>
<tr>
<th>FMMO Pricing</th>
<th>Class I Actual (Range based on location)</th>
<th>Class II Projected</th>
<th>Class III Projected</th>
<th>Class IV Projected</th>
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<tbody>
<tr>
<td>This Week</td>
<td>$17.12 - $17.62</td>
<td>$14.61</td>
<td>$14.46</td>
<td>$14.93</td>
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<tr>
<td>Last Week</td>
<td>$17.12 - $17.62</td>
<td>$14.70</td>
<td>$14.78</td>
<td>$15.07</td>
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New FMMO brings new market pricing projection formulas

By Geoff Vanden Heuvel, Director of Regulatory and Economic Affairs

With the inauguration of Federal Milk Marketing Order (FMMO) pricing in California on November 1, we will need to experiment on how best to communicate California FMMO milk pricing to our readers.

We will start by simply reporting the FMMO class price projections for the current month in the following way: Class I prices are known because USDA sets them in advance of the month. For November 2018, the minimum class I price ranges from $17.62 per cwt. in Los Angeles County down to $17.12 per cwt. in Tulare County.

For Class III (cheese and whey) and Class IV (butter and nonfat dry milk), we will use the Friday closing CME Class III and IV futures prices for the current month. For a class II projection we will use a combination of advanced skim prices and futures prices for butterfat. As you can see above, we will display these prices from week to week so you can see how they change.

As for the pooled blend price, we will not have any information for November from USDA until later in December. It will take a little time to figure out, even for rough projection purposes, what the blend price might be and then that blend price is adjusted for location based on where you sell your milk.

The FMMO system is a bit more complicated and of course it is very new to all of us. If you have any suggestions or questions, feel free to drop me an email at geoff@milkproducers.org.

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Market commentary
By Sarina Sharp, Daily Dairy Report, sarina@dailydairyreport.com

Milk & Dairy Markets
It was another disappointing week in the dairy markets. Prices moved lower across the board. CME spot Cheddar blocks dropped 7.75ȼ to $1.38 per pound, their lowest price since March 2017. Barrels fared a little better than blocks, slipping 3.5ȼ to $1.305. At the Global Dairy Trade (GDT) auction, Cheddar plunged 4.6% to the equivalent of $1.47 per pound. U.S. cheese is competitively priced, so exports are likely to improve. But the U.S. must overcome higher tariffs from its largest foreign customer. Cheese production has slowed in the eastern two-thirds of the nation due to lower milk supplies. But, judging by the price, domestic cheese demand remains lackluster.

The whey market is quiet, and prices slipped a penny this week to 43.5ȼ. With that, Class III futures finished deep in the red. Most contracts lost between 25ȼ and 40ȼ. The December contract fell 71ȼ from last Friday’s settlement to $14.47. Most Class IV contracts finished 30ȼ to 40ȼ lower. December Class IV settled at $14.74.

Skim milk powder (SMP) prices improved 1.2% at the GDT to the equivalent of nonfat dry milk (NDM) at 97ȼ per pound. In Chicago, spot NDM lost 4ȼ and closed at 86ȼ. The milk powder market is comfortably entrenched in a range from 85ȼ to 90ȼ. Production is waning as befits the season, with notable declines in drier utilization in the Upper Midwest and Northeast. Across the pond, milk powder is moving out of the Intervention storage program at a healthy clip. The European Commission sold more than 30,000 metric tons, or 66.3 million pounds, of SMP in its most recent tender and commanded its highest minimum sales price in a year. The Commission has trimmed its massive stockpile by 55% since the peak at this time last year. Slowly but surely, NDM and SMP inventories are ebbing on both sides of the Atlantic.

CME spot butter dropped 10.75ȼ this week and dipped below the $2.20 mark which has reliably served as a floor for months. Spot butter finished at a disappointing $2.1925 per pound. Butter prices are in retreat around the world, with sustained declines in Europe and a floundering market in Oceania. The average winning price for
GDT butter dropped 1.7%. Other butterfat products also struggled. Anhydrous milkfat fell 1.3%. Whole milk powder retreated 2.9%, driving a 2% decline in the GDT Index.

In the East and Central regions, cream multiples – the factor that cream buyers use to translate the CME spot butter price to a cream price – have jumped to more than three-year highs. But high freight costs are keeping more cream in the West, despite much lower multiples there. The relative cream prices reflect changes in regional milk production. In the third quarter, milk output dropped sharply from the prior year throughout the Southeast, with milk production down 8.2% in Tennessee, 7.7% in Florida, and 6.7% in Virginia. Milk output is down in the Northeast and Midwest as well. Third-quarter production fell 3% year-over-year in Ohio, 2.5% in Pennsylvania, 1.9% in Indiana, and 1.5% in Michigan. With cream in high demand and milk production dwindling, butter output outside the West is likely slowing. For now, however, lower production is doing little to support butter prices.

After years of slim margins and the recent downturn, dairy producers are clearly struggling to hold on. Slaughter volumes jumped to 63,656 head, up 11.8% from the same week a year ago. Despite the smaller dairy herd, culling is running 4.6% ahead of the 2017 pace. In some areas, dairy producers have to wait to bring cull cows to the slaughterhouse, because packers are flush with cheap dairy cows they purchased at auction. Springer values continue to decline and demand is all but nonexistent. Contacts in the Upper Midwest tell USDA’s Dairy Market News of “declines in October [milk] volumes year over year,” and they expect similar declines for November. Furthermore, “milk handlers report a number of Central and Midwestern area dairy farmers to depart the industry when current silage stores dissipate.” In the West, “the continued financial stress is taxing the sinews of the dairy farming community.” Equity from the 2014 boom has been completely drained from the industry, and producers’ finances are in shambles. Milk and some dairy product supplies are slipping. But it’s difficult to rally the market without a convincing increase in demand and with the added headwinds of a strong currency and an ongoing trade war.
On that front, there is some tentatively good news. Canada and the United States have had informal talks about the contentious U.S. tariffs on steel and aluminum, and Mexico remains amenable on the trade front. If Washington, D.C. and Ottawa can come to terms, perhaps the U.S. will issue waivers for these two key trading partners, which would allow Mexico to lift the tariffs on U.S. cheese that have been in place since early July. Meanwhile, the U.S. economy continues to boom and the holidays are fast approaching. U.S. dairy is a bargain. It seems reasonable to expect an uptick on sales.

Grain Markets
It was a rather quiet week in the grain pits. December corn futures settled at $3.6975 per bushel, down 1.5ȼ from last Friday. January soybeans closed at $8.8675, down a penny. South American crops are off to a great start, and planting has moved at a heady pace. In the U.S., some farmers have had to park their combines and await better weather. The slow pace of harvest has reduced the pressure that typically plagues the markets at this time of year.

USDA lowered its estimate of domestic corn and soybean yields. The direction of the change was anticipated, but the magnitude exceeded expectations. However, U.S. crop estimates were overshadowed by USDA’s global forecasts. Earlier this week China reported a massive increase in its grain stockpiles, and the agency followed suit, boosting its estimate of Chinese corn stocks from 58.5 million metric tons to 207.5 million metric tons. That pushed the global corn carryout to 307 million metric tons, shockingly larger than the average pre-report guess of 159 million metric tons, but still a little smaller than last season’s global stockpile.

However, China’s corn stocks are very old and of questionable quantity. Beijing continues to push ethanol production as a means to marginally reduce its dependence on foreign oil and to eat up the government’s moldering corn stocks. China will require a 10% ethanol blend across the nation by 2020, which will quickly use up stocks and suddenly require enormous imports to supply fodder for the new ethanol and industrial grain facilities. China’s statistics agencies and USDA have made big changes on paper, but this revision is largely superficial. In the years to come, Chinese grain demand could produce a tectonic shift in the currently well-supplied grain markets.

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Are you ready for SGMA? The time for involvement is now
By Geoff Vanden Heuvel, Director of Regulatory and Economic Affairs

The Sustainable Groundwater Management Act (SGMA) became the law of the land in California in 2014 and will have a profound impact on agriculture in our state. The purpose of the law is to create a supply and demand balance for groundwater that will be sustainable into perpetuity.

Essentially, the law seeks to end the mining of groundwater. To accomplish this goal, SGMA requires every square inch of California with groundwater beneath it to become part of a locally controlled Groundwater Sustainability Agency (GSA). The law then requires those GSA’s that represent critically overdrafted groundwater basins to produce a Groundwater Sustainability Plan (GSP) by the year 2020. Those plans are required to lay out a strategy for how each GSA will reach “sustainability” by the year 2040.
So where are we and why should the dairy industry care?

GSA’s have been formed in all of California. In fact, there are now well over 200 GSA’s, and of those, about 125 of them are in areas of the state that have been designated as critically overdrafted basins. Why the dairy industry should care is that much of our industry is located in these critically overdrafted basins and SGMA regulations will definitely impact our water supply.

Since the 1st of June on behalf of MPC, I have been attending meetings of the GSAs in the dairy areas of the Central Valley for the purpose of being the industry’s eyes and ears and advocate. What each of these GSAs did after organizing was to hire water engineering firms to help them figure out how much water was under the ground. Doing so requires plugging tens of thousands of pieces of data into pretty sophisticated groundwater models. As these water budgets started to come into focus over the past month or so, the numbers for how much native groundwater water that can be sustainably produced in many of these overdrafted basins is coming in at between ½ and 1 acre-foot per acre per year. This is very sobering. There are many of these basins that have access to surface water supplies which does make managing the eventual groundwater pumping restrictions more doable, but we also have a certain amount of California dairy farms that are located in parts of the state where they have no access to surface water supplies. These dairies are the most vulnerable to the impacts of SGMA.

What producers should do immediately is identify which GSA you are in and seek out the leadership of that GSA for the purpose of participating in the process of developing the GSPs. SGMA gives the local community a lot of latitude in developing the plan. Ultimately, the impact of SGMA is going to be on the individual producer, but as an industry we need to come along side and provide assistance, particularly in providing support for projects to supplement groundwater supplies. Those supplemental supplies are mostly those infrequent flood water flows that occur in really wet years. Infrastructure to capture and recharge that water needs to be constructed and because these flows show up infrequently, the cost of this infrastructure is quite large, often requiring outside money in order to be feasible.

Another part of the management of this challenge will be to develop water marketing systems that will enable producers to purchase extra water from willing sellers. These water market systems have been successfully implemented in other parts of the world where water is limited.

The bottom line is that this process is well underway and for the most part dairy producers have not been as involved as they should be. There are things that can be done to make it better, but SGMA at its core is about allocating pain. The industry will do what it can to provide support, but that support will be most effective when provided in conjunction with strong local efforts by individual producers in your local community. If you have any questions, suggestions or comments, feel free to give me a call at 909-730-1240 or email me at Geoff@milkproducers.org.

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**Air District FARMER Ag Truck Replacement Program now accepting applications**

*By Kevin Abernathy, MP General Manager*

The San Joaquin Valley Air Pollution Control District announced the opening of the FARMER Ag Truck Replacement Program. The California Air Resources Board requires producers to comply with the current On-Road Truck and Bus Regulation. Eligible Ag trucks must currently comply under the following options:

Agricultural Vehicle Extension; Low-Use Exemption; Specialty Agricultural Vehicle Extension; Model Year Schedule and the truck must operate as an "agricultural vehicle" as defined in the Truck and Bus Regulation.

The goal of the FARMER Ag Truck Replacement Program is to reduce emissions from diesel engines in heavy-duty Ag trucks that operate 100% of the time within California and 75% within the District boundaries. The District will provide 65% of the cost of the eligible replacement truck. Applications and Guideline documents...
are available upon request or on the District's website here.

Please note, the submittal of an application does not guarantee funding and you must have an executed agreement from the District prior to making any purchase(s).

If you have any questions, please contact me at kevin@milkproducers.org. You can also contact the district for an application at 559-230-5800 or email grants@valleyair.org.

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Dairy Cares Member Update: Implications of SGMA Require Local Involvement

Milk Producers Council has been a longstanding member of Dairy Cares, a coalition of dairy trade groups, cooperatives, processors, and allied industry members working together on industry sustainability issues.

The October edition of the Dairy Cares member update informs readers about the effects of SGMA on California dairies and highlights the importance of local leadership through Groundwater Sustainability Agencies (GSA).

The update also highlights the success of the state’s incentive programs to reduce dairy methane emissions. Funding for methane digesters and other alternative manure management projects are reported to be a viable tool to reach the 40 percent reduction required by 2030.

Registration numbers for the California Dairy Sustainability Summit are also included.

Read the full article here.

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