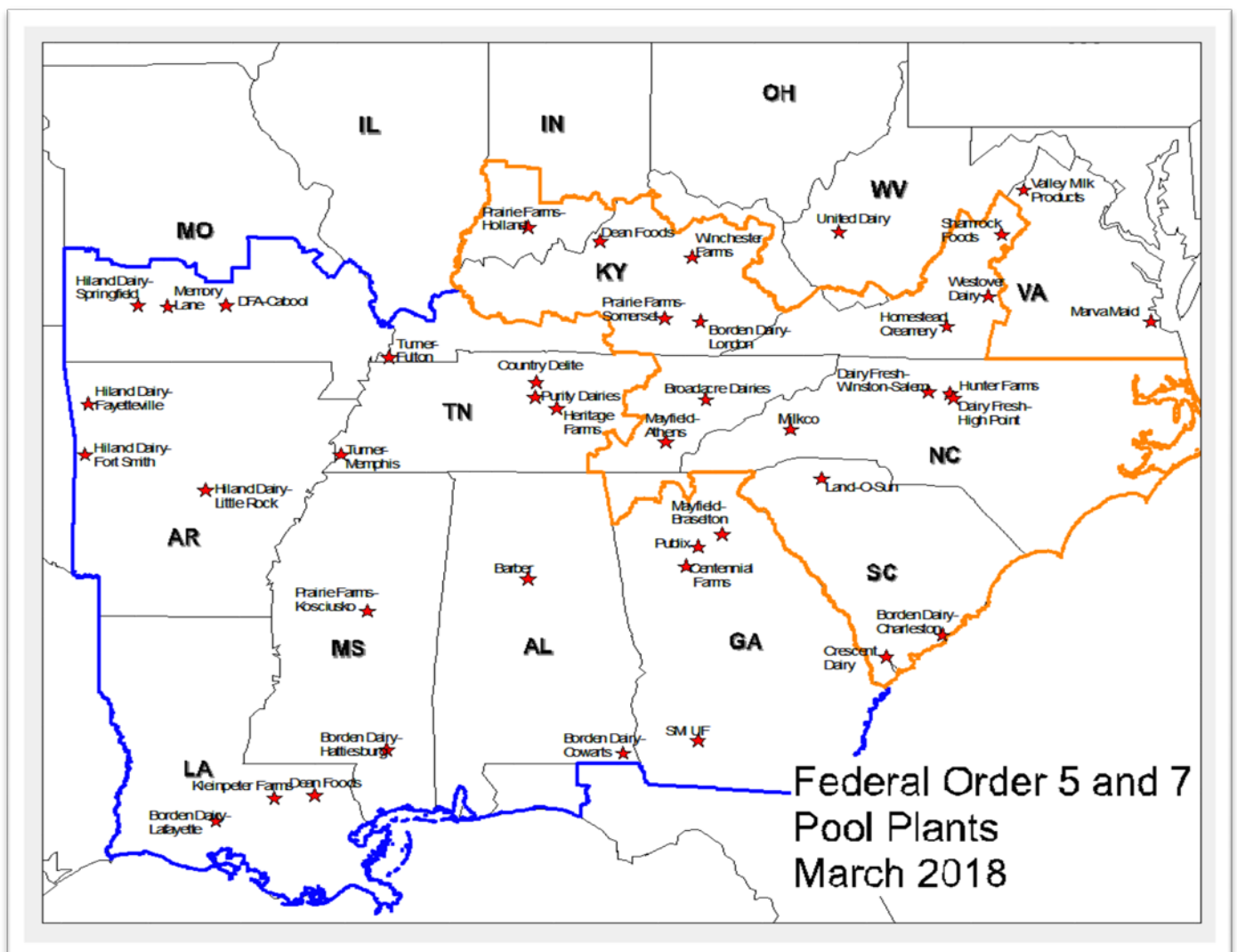


Federal Milk Marketing Order Pooling Provisions

The Federal Milk Marketing Orders include provisions to attract an adequate milk supply to meet consumer fluid milk needs. The provisions in the Appalachian and Southeast orders include pooling standards, Class I differentials and a Transportation Credit Balancing Fund.

Federal milk orders specify the criteria that determine how producers, producer milk and milk handlers are able to participate in the market-wide pool. Market-wide pooling is how dairy farmers share in the benefits arising from the classified pricing of milk.

A pool plant is a plant qualified to participate in a Federal milk order market-wide pool. Pooling standards for plants are tailored to a specific marketing area and therefore can vary across Federal orders. Fully regulated pool plants are subject to all the provisions of a Federal order. Pool distributing plants qualify based on the distribution of Class I packaged milk sales in the marketing area. Pool supply plants qualify based on the shipments of milk to pool distributing plants for Class I use. A pool plant contributes to or draws monetary value from the market-wide pool depending on how it uses the producer milk it receives.



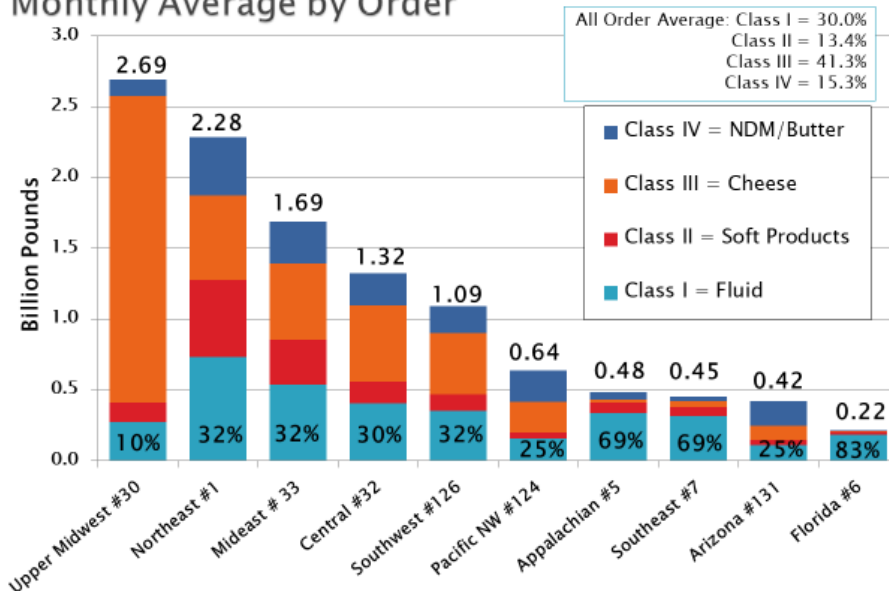
A producer qualifies to participate in a Federal order pool by delivering milk to a pool plant. The specific producer standards for delivering milk to a pool plant vary by Federal order. Producer delivery requirements (touch base) establish the requirements for producer delivery to pool plants for allowing the pooling of diverted milk (i.e. which producers share in the pool). Diversion limit percentages specify the maximum volume of milk that may be delivered to a non-pool plant by handler and still be pooled and priced under the qualifying order (i.e. what milk shares in the pool). The diversion limits are significantly stricter in Federal Orders 5,6, and 7 compared to the other orders. The Upper Midwest and Southwest orders have similar volumes of Class I pounds as the Appalachian and Southeast orders, but they have significantly lower Class I utilization percentages.

Diversions Limits & Performance Requirements

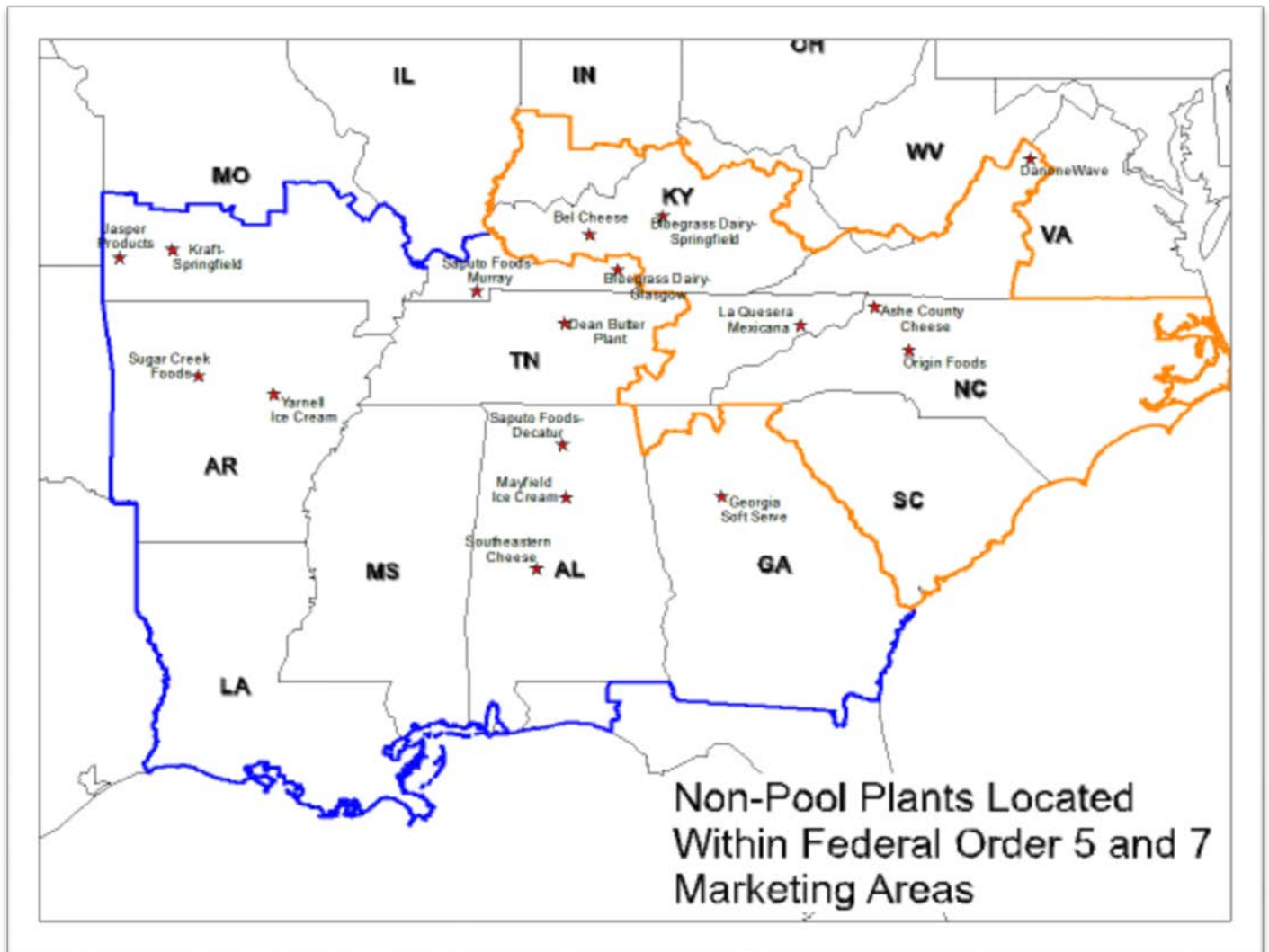
FO No.	FO Name	Diversion Limits	Delivery Day Requirements	Class I Utilization- 2017	Class I Pounds- 2017 (Billion Lbs.)
5	Appalachian	25-35%	1/month	69.0%	4.0
6	Florida	10-20%	10/month	83.3%	2.2
7	Southeast	25-35%	1/month	69.1%	3.8
1	Northeast	80-90%	1-(until association lost)	32.1%	8.8
30	Upper Midwest	90%	1-(until association lost)	10.0%	3.2
32	Central	75-80%	1-(until association lost)	30.5%	4.8
33	Mideast	50-60%	2-(until association lost)	31.8%	6.4
124	Pacific Northwest	80%	3/month	24.7%	1.9
126	Southwest	50%	1-(at least 40,000 lbs)	32.2%	4.2
131	Arizona	50%	1/month	25.4%	1.3

Producer Milk by Class Use – 2017

Monthly Average by Order



A diversion is a direct delivery of milk from a farm to a non-pool plant that can still remain pooled and priced under the qualifying order. Allowing for diversions to participate in the market-wide pool reflects the need for a greater supply than the market's fluid milk demand due to the daily and seasonal variations in the supply and demand and balancing needs of the market. They are used by pool plant operators and cooperatives acting as handlers to attract an adequate milk supply to meet Class I needs. Diversions facilitate the orderly and efficient disposition of milk when the milk is not needed at a pool distributing plant.



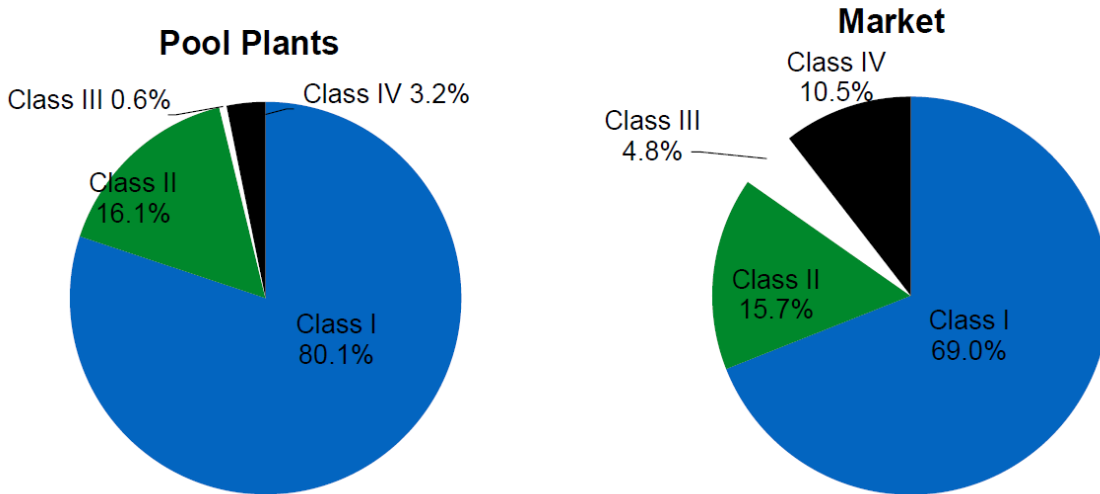
Pool Plants and Total Market Utilization

The graphs below illustrate the 2017 annual average class utilization of producer milk at regulated pool plants and the total market for Federal Orders 5 and 7. The Class I utilization at pool plants in both orders is 80 percent, while the total market average is 69 percent.

2017 Utilization - Federal Order 5

19 Pool Distributing Plants

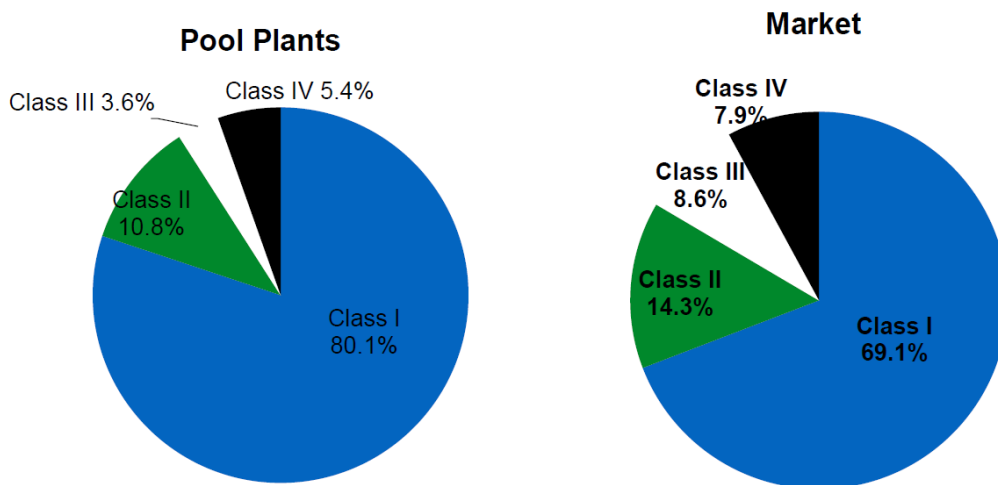
1 Pool Supply Plant



2017 Utilization - Federal Order 7

Pool Distributing Plants: 20

Pool Supply Plants: 1-2

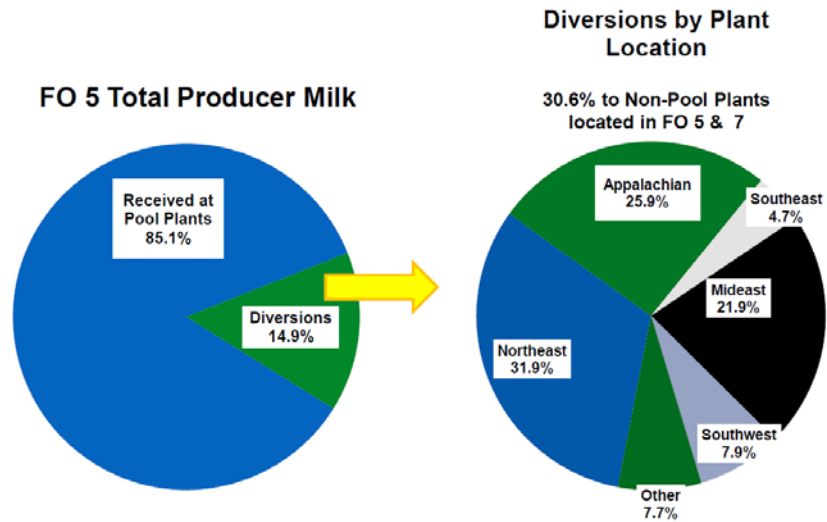


Non-Pool Plant Deliveries

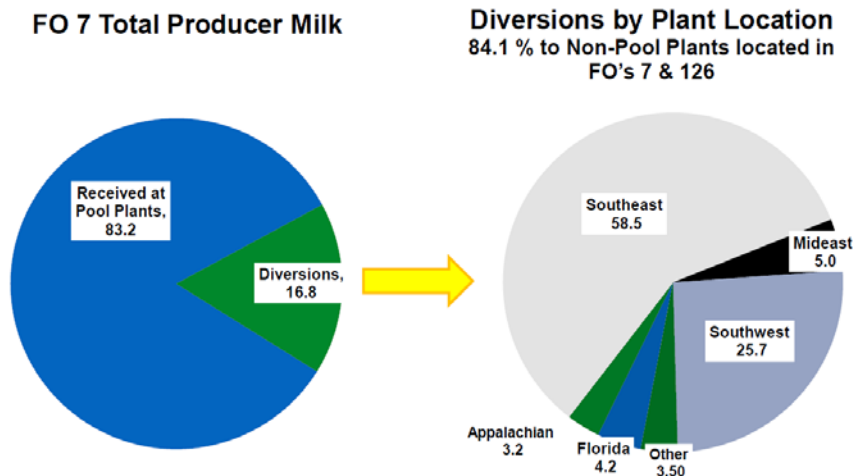
In 2017, approximately 85 percent of the total producer milk pooled on Federal Order 5 was received at pool plants, while the remaining 15 percent was delivered to non-pool plants (diversions). Over a fourth of all diversions were delivered to non-pool plants located in the Appalachian Marketing Area. Another 5 percent was delivered to non-pool plants located in the Southeast Marketing Area. Deliveries to non-pool plants located in the Northeast and Mideast Marketing areas represented 32 percent and 22 percent, respectively, of the total volume of diversions.

Pool plant deliveries represented 83 percent of the total producer milk pooled on Federal Order 7, while the remaining 17 percent was delivered to non-pool plants (diversions). Almost 60 percent of all diversions in Federal Order 7 were delivered to non-pool plants located in the Federal Order 7 marketing area. Deliveries to non-pool plants located in Southwest Marketing area represented 26 percent of the total volume of diversions in 2017.

Federal Order 5 Diversions: 2017



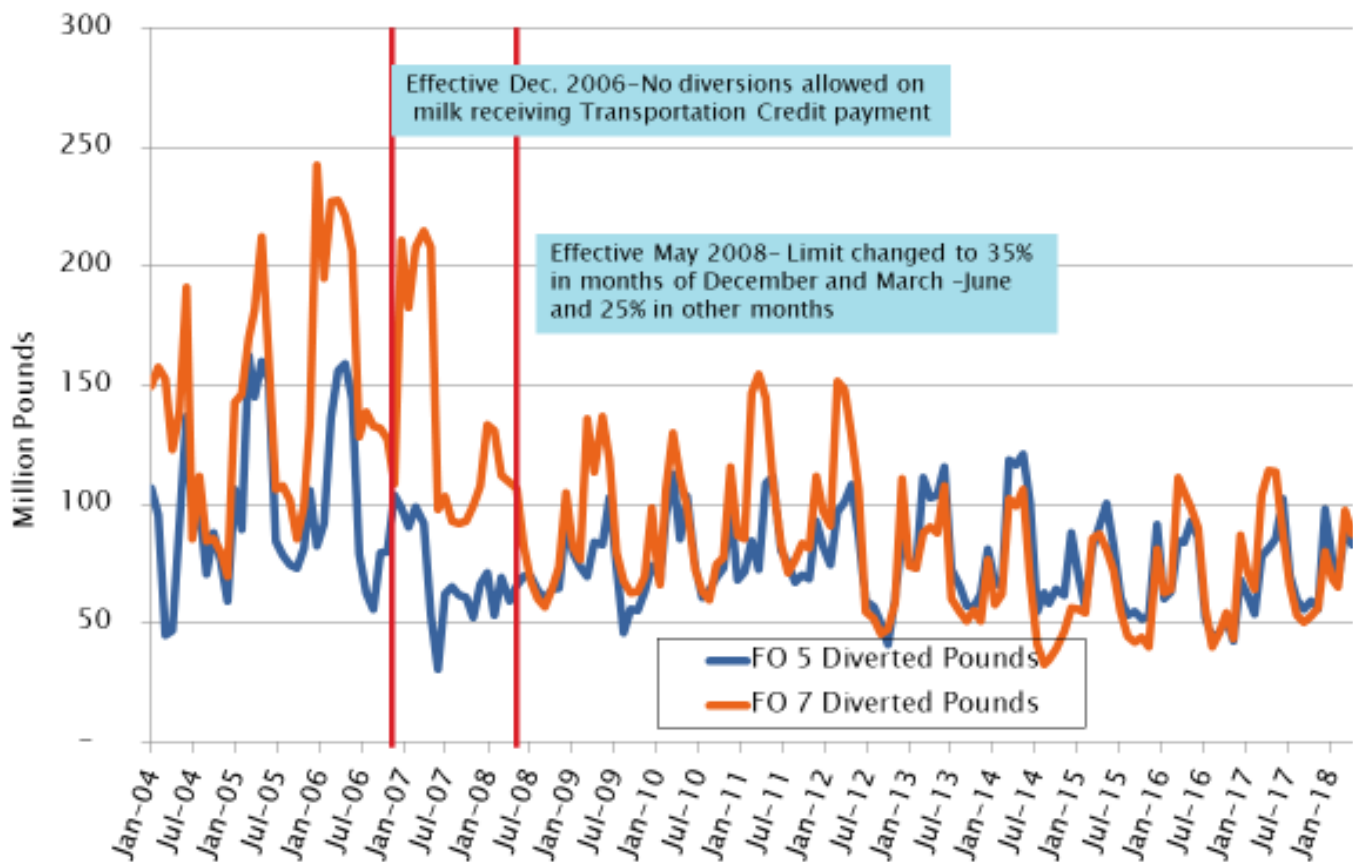
Federal Order 7 Diversions: 2017



The graph below includes the total volume of diverted milk (delivered to non-pool plants) by month from January 2004 to April 2018 for both orders. The Secretary of Agriculture has issued two separate decisions that have reduced the maximum allowable diversions on Federal Orders 5 and 7. Effective December 2006, diversions could no longer be applied to milk requesting a transportation credit payment. Effective May 2008, diversion limits were reduced to the current levels in both orders to 35 percent in March – June and December and 25 percent in the other months. Since the implementation of these change, the total volume of diverted milk pooled on both orders has decline.

Total Diversions by Order:2004-2018YTD

Impact of Order Changes

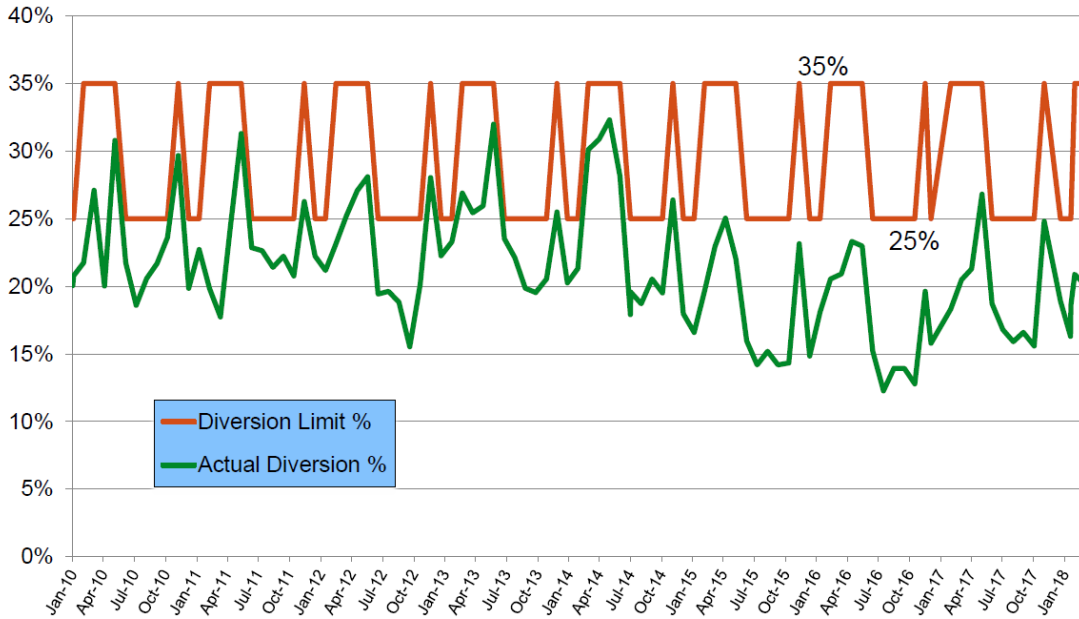


The following graphs illustrate the total diversion percentages of the market in relation to the limit for any given month. Since 2015, the average market diversion percentage in Federal Order 5 was 15.8 percent for months with a 25 percent diversion limit and 21.9 percent for months with a 35 percent diversion limit.

The diversion limit percentage applies to the total pool plant deliveries less any volume of milk requesting a transportation credit payment.

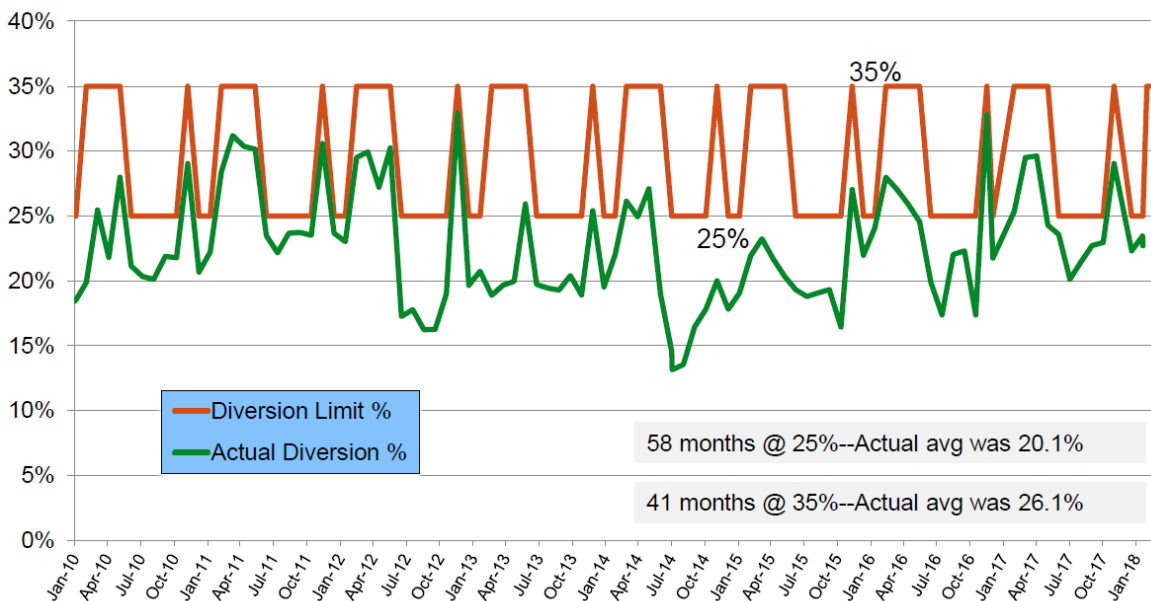
Federal Order 5 Diversions

2010-2018



Federal Order 7 Diversions

2010-2018

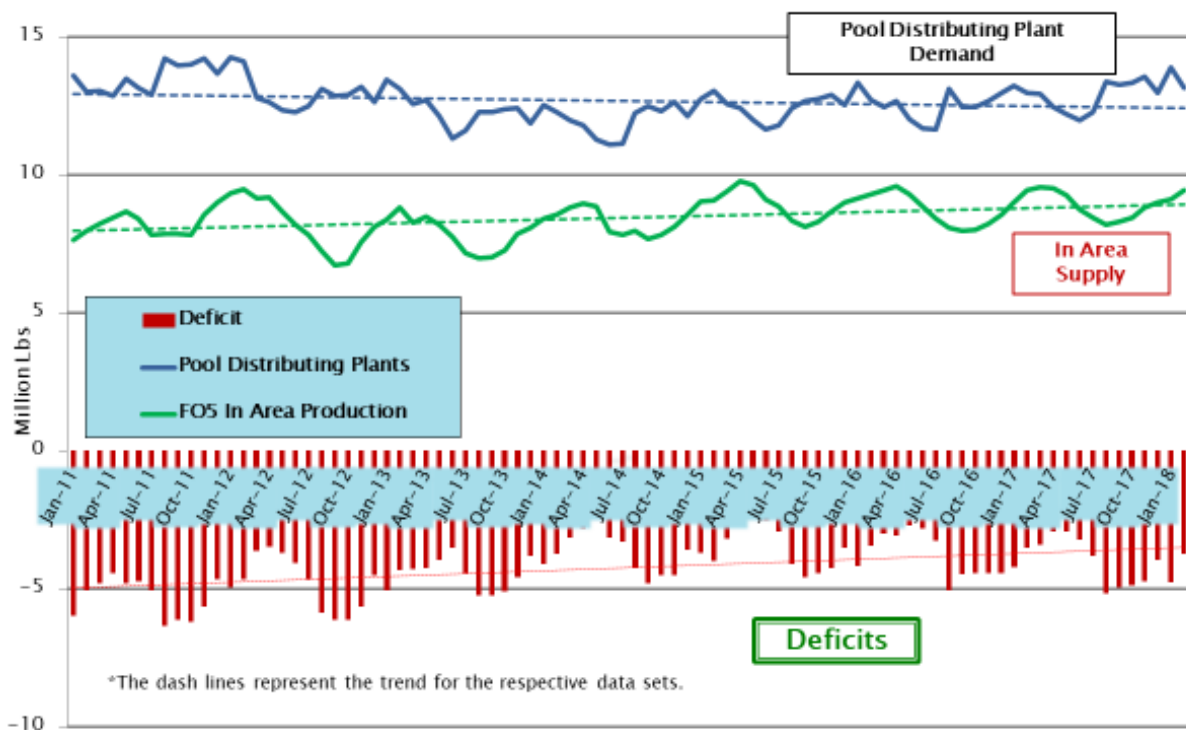


Seasonality of Supply and Demand

The seasonality of milk production and fluid milk demand can create hardship on the handlers balancing the market, especially in a deficit market. Milk production is greater in the spring months and declines in the late summer/early fall months. The lowest period of milk production is when schools are opening and fluid milk demand is increasing. The seasonality swings in milk production tend to be greater in the Appalachian and Southeast orders relative to other parts of the United States.

The graph below illustrates the seasonality issues faced by those handlers supplying Federal Order 5 pool distributing plants. The blue line represents the daily average producer milk receipts received at pool distributing plants by month during the years of 2011-2017. The green line represents the daily average producer milk produced and pooled in the Federal Order 5 marketing area. The difference between the two represents the volume of milk that needs to be delivered from outside the Federal Order 5 marketing area to meet pool distributing plant demand, referenced as “deficit” in the graph (red bars). The dash line for each data set represents the trend line, which indicates the general direction of the data over time. For example, the trend line for in-area production is sloping upward, illustrating the in-area production in Federal Order 5 is increasing over the time period represented in the graph.

FO 5 Daily Average Pool Distributing Plant Demand: 2011–2017



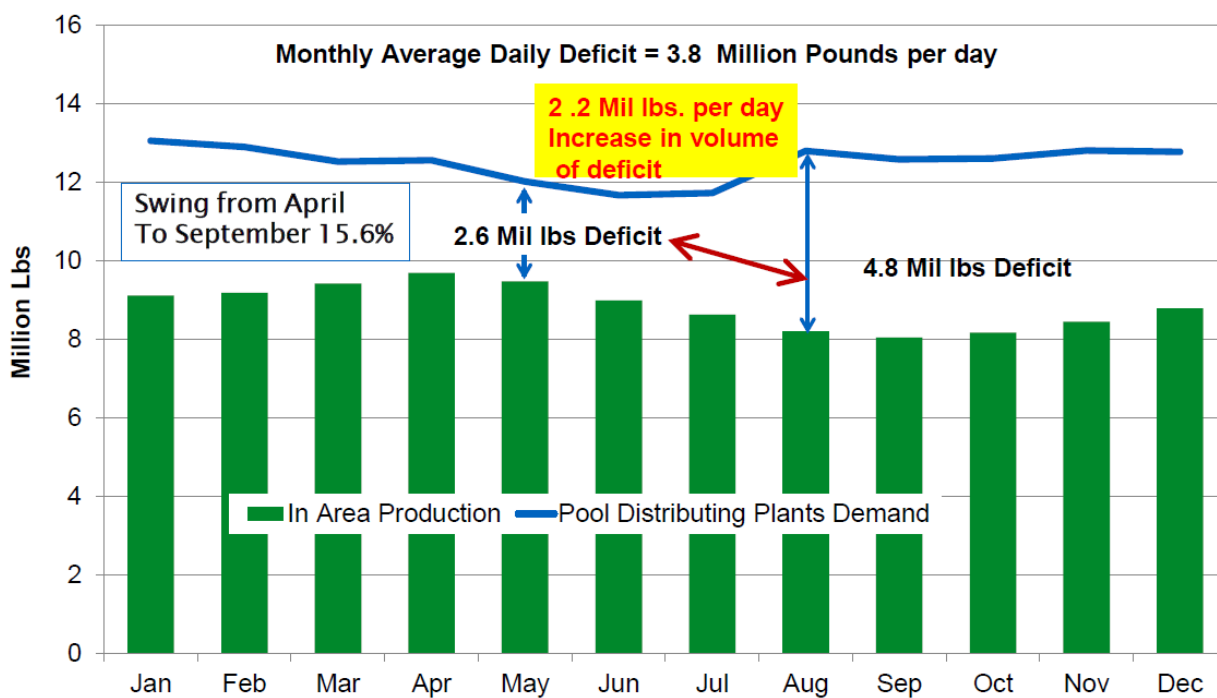
*Daily averages are used to reduce the impact of the number of days in a given month.

The graphs below are comparing the daily average pool distributing plant demand to the in-area production on a monthly basis for the last three years. The blue line represents the daily average producer milk receipts received at pool distributing plants by month during the years of 2015-2017. The green line represents the daily average producer milk produced and pooled in the representative marketing area. The difference between the two represents the volume of milk that needs to be delivered from outside the marketing area to meet pool distributing plant demand.

For Federal Order 5, the average daily “deficit” during the time period was 3.8 million pounds. The least “deficit” month was May at 2.6 million pounds per day (82 million pounds monthly), while the most “deficit” month was August at 4.8 million pounds (148 million pounds monthly).

The in-area milk production of Federal Order 5 decreased 15.6 percent from its highest level in April to the lowest in September.

FO 5 Daily Average Production and Pool Distributing Plant Demand 2015-2017

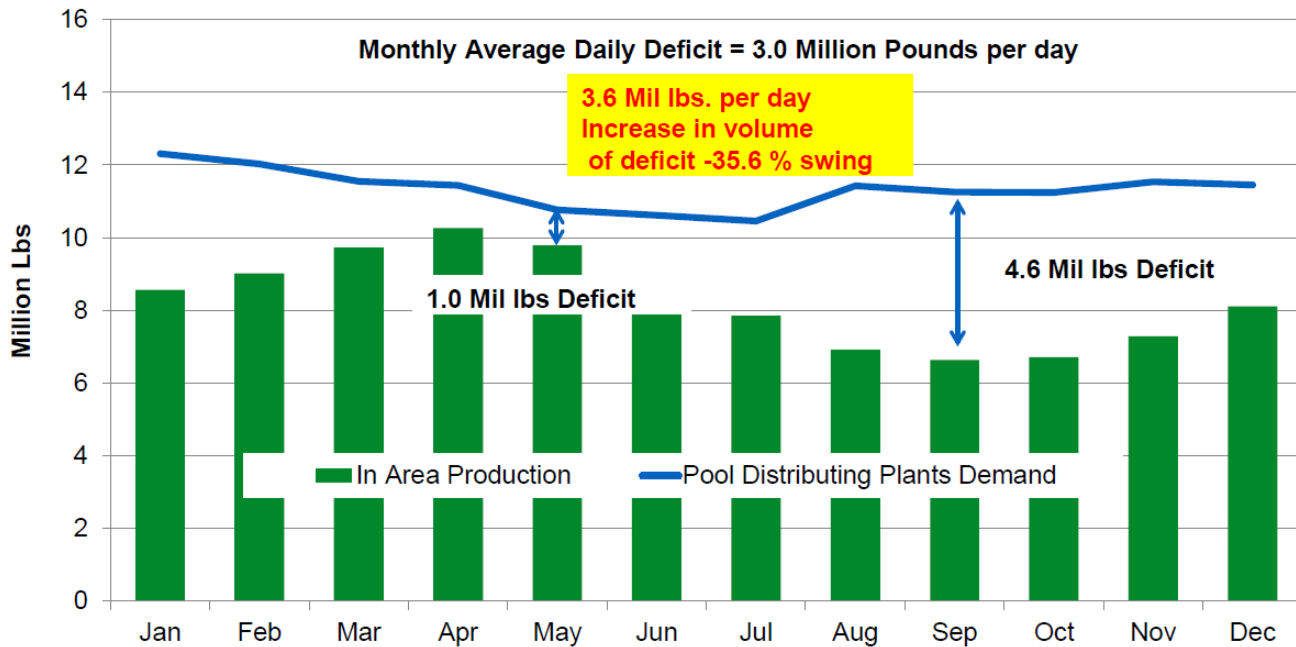


For Federal Order 7, the average daily “deficit” during the time period was 3.0 million pounds. The least “deficit” month was May at 1.0 million pounds per day, while the most “deficit” month was September at 4.6 million pounds.

The in-area milk production of Federal Order 7 decreased 35.6 percent from its highest level in April to the lowest in September.

Pool distributing plant demand increases in August due to the increased demand for fluid milk with the beginning of the school year. This occurs at the same time, the in-area production is declining. The need for additional milk from outside the marketing area is significantly greater from August through October.

FO 7 Daily Average Production and Pool Distributing Plant Demand 2015-2017

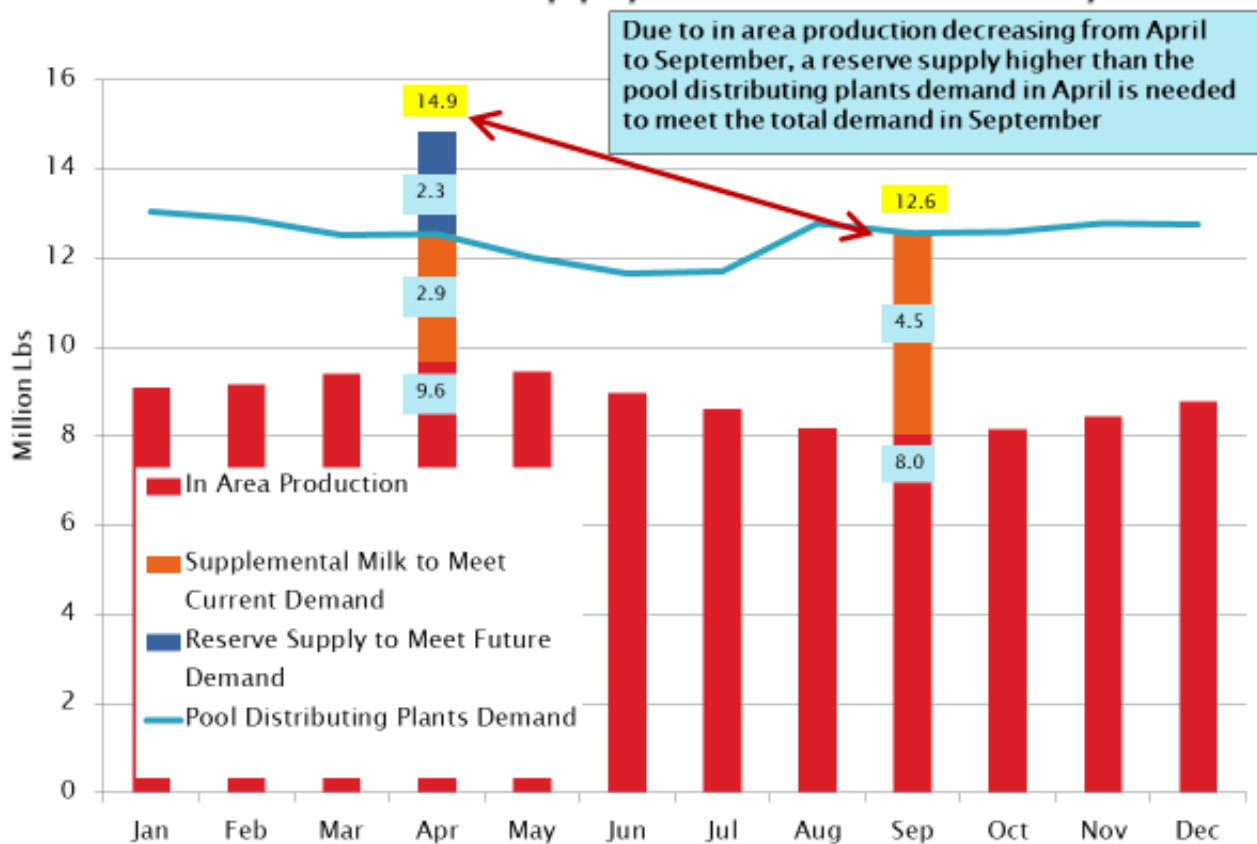


The pool distributing plants of Federal Order 5 on average demanded 12.6 million pounds of milk daily in both the months of April and September. Due to the seasonality of milk production in the marketing area, the in-area producers that delivered 9.6 million pounds to pool distributing plants in April delivered 8.1 million pounds in September. Applying this seasonality to the total 12.6 million pounds needed daily by pool distributing plants in September, the milk supply would need to be 14.9 million pounds per day in April, or 2.3 million pounds more per day than the demand of all pool distributing plants.

Federal Order 7, with its higher level of seasonality swings in milk production (see previous graph), requires even a larger quantity of reserve supply to meet the Class I demands of the market in the late summer and early fall months.

This graph illustrates the need for a reserve supply to meet fluid milk demand and a justification to allow diversions to participate in the market-wide pool.

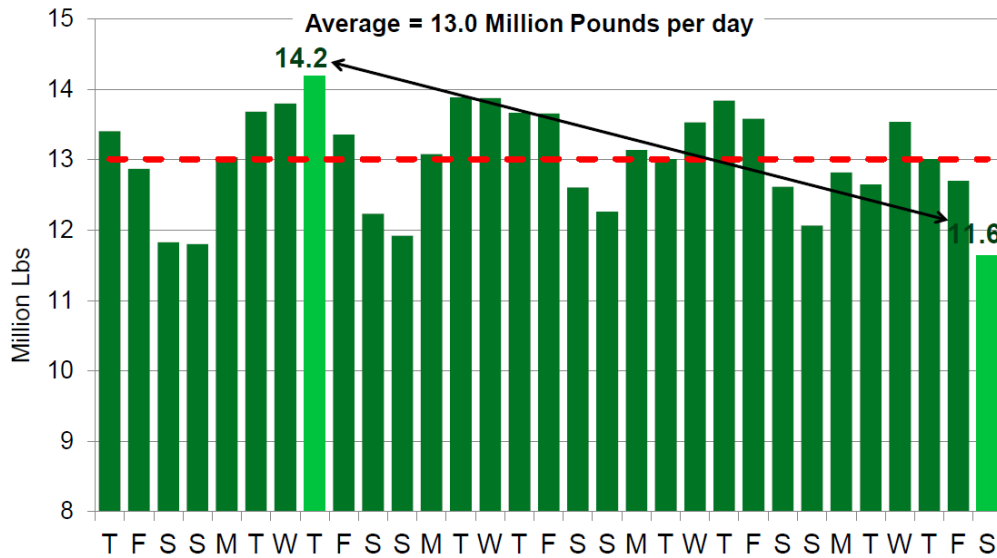
Need for a Reserve Supply due to Seasonality:



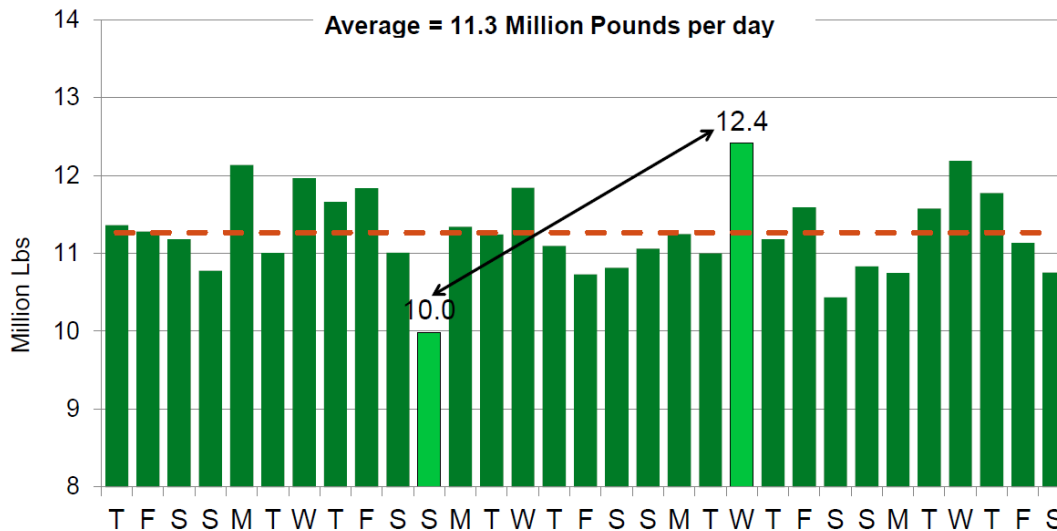
Daily Variation in Pool Distributing Plant Receipts

The data below is the producer milk receipts at all pool distributing plants for each day in March 2018. Pool distributing plant demand can vary significantly based on the day of the week. The lowest demand days at the plants are over the weekend. The difference in the high demand day to the low demand day represented a 20 percent swing in both marketing areas. When milk is not needed at pool plants, it must be delivered to non-pool plants.

Daily Producer Milk Receipts FO 5 Pool Distributing Plants – March 2018



Daily Producer Milk Receipts FO 7 Pool Distributing Plants – March 2018



Class I Differentials

The higher Class I differentials in the Appalachian and Southeast orders reflect the increased costs to supply the Class I market in these areas. The higher Class I utilization and differential levels result in higher uniform prices. The Class I differentials represent over 13 percent of the uniform price in the Appalachian (FO 5) and Southeast (FO 7) orders and over 24 percent of the uniform price in the Florida (FO 6) order, significantly higher than the remaining orders.

The market average Class I differential in 2017 was \$3.16 per cwt. for FO 5, \$5.59 per cwt. for FO 6, and \$3.28 per cwt. for FO 7. The class I differentials were increased in the Appalachian, Florida, and Southeast orders based on an USDA decision, effective May 2008.

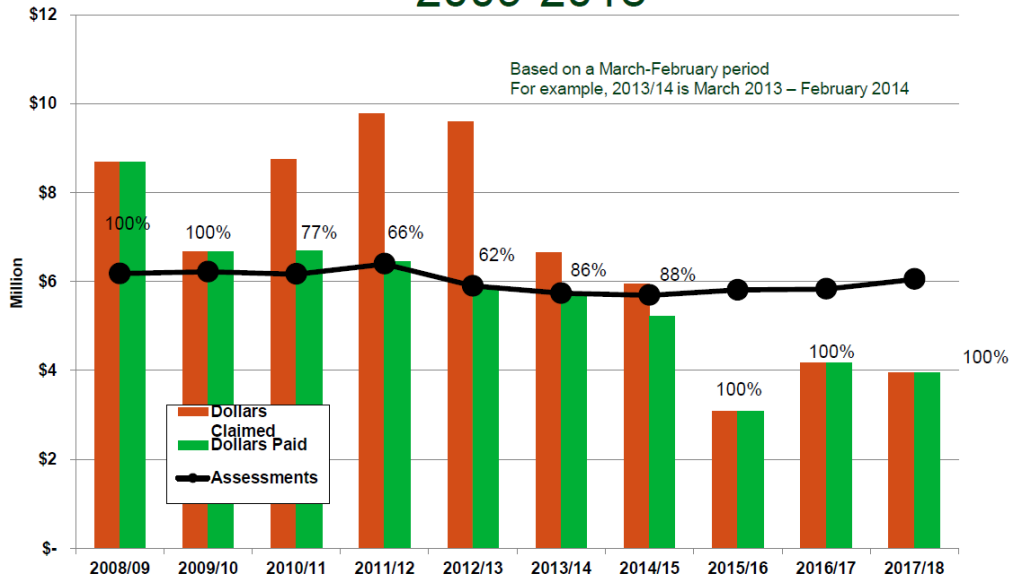
Class I Differential Value – 2017

Order Name	Class I Pounds (Billion Lbs)	Class I Utilization	Class I Differential Value (Million \$)	Differential Value as Percent of Uniform Price
Northeast	8.80	32.1%	\$252.7	5.9%
Appalachian	4.00	69.0%	\$126.4	13.0%
Florida	2.17	83.3%	\$121.3	24.4%
Southeast	3.77	69.1%	\$123.7	13.3%
Upper Midwest	3.24	10.0%	\$56.4	1.2%
Central	4.84	30.5%	\$104.4	4.7%
Mideast	6.43	31.8%	\$125.3	4.3%
Pacific Northwest	1.89	24.7%	\$35.9	3.2%
Southwest	4.22	32.2%	\$131.6	6.9%
Arizona	1.28	25.4%	\$29.2	4.0%
Total	40.64	30.0%	\$1,106.9	4.8%

Transportation Credit Balancing Fund

The Transportation Credit Balancing Fund was implemented to reimburse handlers for the increased need for supplemental milk by pool distributing plants during July through February (as seen in previous graphs). It is a separate fund from the Producer Settlement Fund and funded by an assessment paid by handlers on Class I milk. Diversions are not able to be applied to milk that requests a transportation credit payment. Requests for payments from the funds have decreased in recent years, especially in Federal Order 5.

FO 5 Transportation Credit Balancing Fund 2009-2018



FO 7 Transportation Credit Balancing Fund 2009-2018

