

Department of Agricultural Economics

The Unique Qualities of the Southern Milk Marketing Orders

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Milk is a heavily regulated commodity, and therefore there are a large number of rules that pertain to its production and processing. These regulations are enforced within regional boundaries called federal milk marketing orders. Most milk marketing orders have similar regulations, but the Appalachian, Florida, and Southeast Orders are somewhat unique when it comes to diversion limits, transportation credits, and delivery day requirements. This publication will highlight these distinctive qualities of Southern milk marketing orders and how those qualities can influence production and processing in those orders. A glossary is provided at the end for reference.

Diversion Limits

Diversion limits are the maximum amount of pooled milk that a pool plant can divert to a non-pool plant. Every Federal Milk Marketing Order (FMMO), out of the current 10, has diversion limits and they are explained within each federal milk marketing order's language (USDA-AMS Historical Documents). Each order is a little different, so these documents outline the definitions and details used to regulate the order. This language, and any changes in the order language, are voted on by producers through a referendum. In order to pass a referendum "either two-thirds of the dairy farmers voting, or producers representing two-thirds of the milk that would have been pooled during a designated month, must approve" the change (USDA-AMS, Questions and Answers on a Potential Proposal for a California Federal Milk Marketing Order, 2015). Due to many milk producers being members of dairy cooperatives, these votes are often cast within a bloc vote. A bloc vote allows the co-op to vote for all of its members at once.

Diversion limits vary by order but range from as high as 90% to as low as 10%. In Figure 1, the definitions of pool and non-pool plants are detailed. Out of the total amount of milk that is gathered (or pooled) by plants regulated under a specific order (pool plants) only a certain percentage of that milk can be diverted to a plant that is not regulated by that order (non-pool plant). A pool plant is regulated under a federal milk marketing order, while a non-pool plant can be regulated under an order, but can receive diverted milk from other orders that classify the plant as non-pool. As an example, a plant that is regulated in the Appalachian Order but also receives diversions from the Southeast Order would be considered an Appalachian Order pool plant, but a Southeast Order non-pool plant.

What is a pool plant?

A pool plant is a fully regulated plant that is:

1. A distributing plant
2. A supply plant
3. A plant within the marketing area operated by a coop
4. Two or more plants operated by the same handler and within the same marketing area

What is a non-pool plant?

A non-pool plant is a plant that is:

1. Fully regulated by another Federal order
2. Producer-handler plant
3. Partially regulated distributing plant
4. Unregulated supply plant
5. An exempt plant
(Federal Order language)

*Please refer to glossary for full definitions.

Figure 1. Plant Definitions

The percentage of milk that can be diverted seems to coordinate closely with how much milk is produced or available within a milk marketing order's boundaries. The Upper Midwest Order, for example, has the highest diversion limits with 90% of their pooled milk being able to be diverted. This order also has a large number of big dairy farms and produces a larger amount of milk. Due to their high production levels they often have excess milk that needs to be processed and plants have practical limits on the amount that they can handle. The high diversion limit allows the excess milk that plants within the order cannot process to be taken to another plant that is not regulated by the order. When this milk is diverted, producers are still able to receive the same price as if their milk had been processed at a plant regulated by their order as long as the percentage of milk diverted stays within the diversion limits.

However, not all orders have excess milk within their regional boundaries. The Southern orders – Appalachian, Southeast, and Florida orders – do not have excess milk, and their orders would actually be labeled as milk deficit. Their milk deficit status means that they have much lower diversion limits than the Upper Midwest Order. The Appalachian and Southeast orders have diversion limits of 25% and 35% depending on the month, and the Florida order has even lower diversion limits at 10%, 15%, and 20% depending on the month.

Lower diversion limits support Class I utilization by preventing excess milk from being processed as a lower class. The southern milk marketing orders have a high number of fluid milk (Class I) processing plants. With the low diversion limits preventing a high

percentage of surplus milk from being processed as Class II, III, or IV the blend price is also supported, compared to other orders. The higher the Class I utilization percentage, the higher the uniform (or blend)¹ price for that order, which further means that the milk producers within the Appalachian, Florida, or Southeast orders should receive a higher price for their milk per hundredweight. However, there are two different types of pricing within the milk marketing orders. There is multiple component pricing and skim-fat pricing. Skim-fat pricing is based off of skim milk and butterfat pounds, while multiple component pricing is based off of skim milk, butterfat, protein, nonfat solids, and other solids pounds. A 2014 study analyzed how multiple component pricing would affect the Southern milk marketing orders (Newton, 2014). For the Appalachian and Southeast Orders there would be an increase in money received, but a decrease for the Florida Order.

Figure 2 and 3 below show the mailbox prices for July 2016 and September 2016, respectively, which display that even though the Southern milk marketing orders have the highest Class I utilization out of the 10 orders they do not consistently receive the highest mailbox price. Since mailbox prices include over-order premiums, an assumption could be made that regions such as New England or Wisconsin have farms that are producing large quantities of milk during the summer when supply often goes down that are earning them a milk price higher than their order's uniform price.

**July mailbox price averaged \$15.75, up \$1.32 from June;
that price was 68 cents lower than July 2015.**

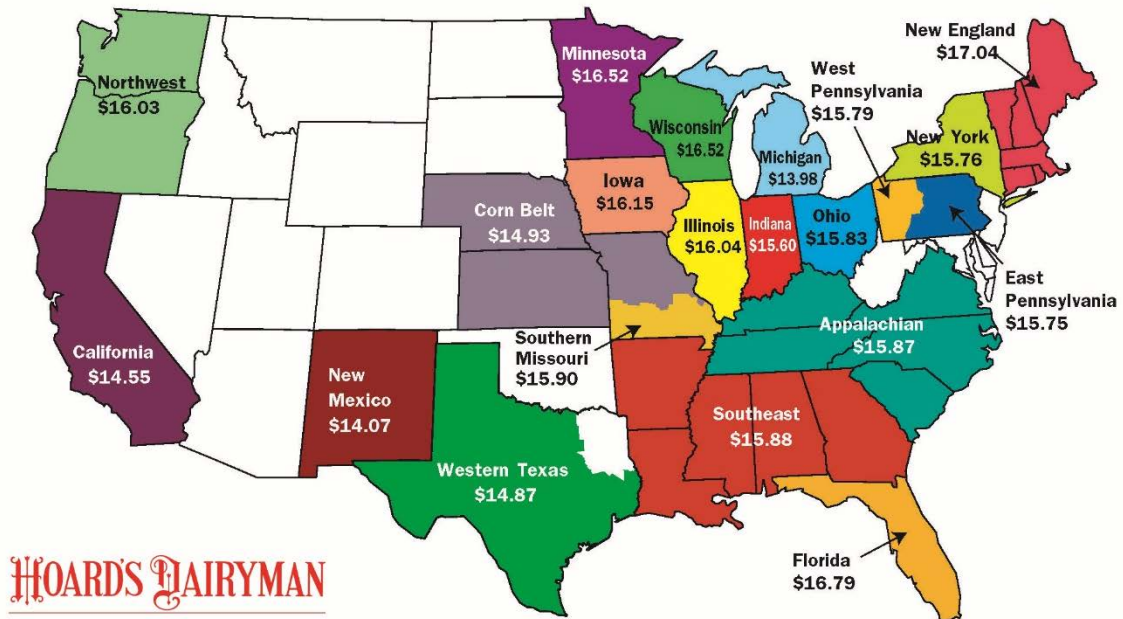


Figure 1. July 2016 Mailbox Prices (Hoard's Dairyman, Mailbox Prices; USDA-AMS, Mailbox Milk Prices)

¹ The uniform price and blend price are the same and will be used interchangeably within this chapter.

September mailbox price averaged \$17.10, up 41 cents from August; that price was 27 cents lower than September 2015.

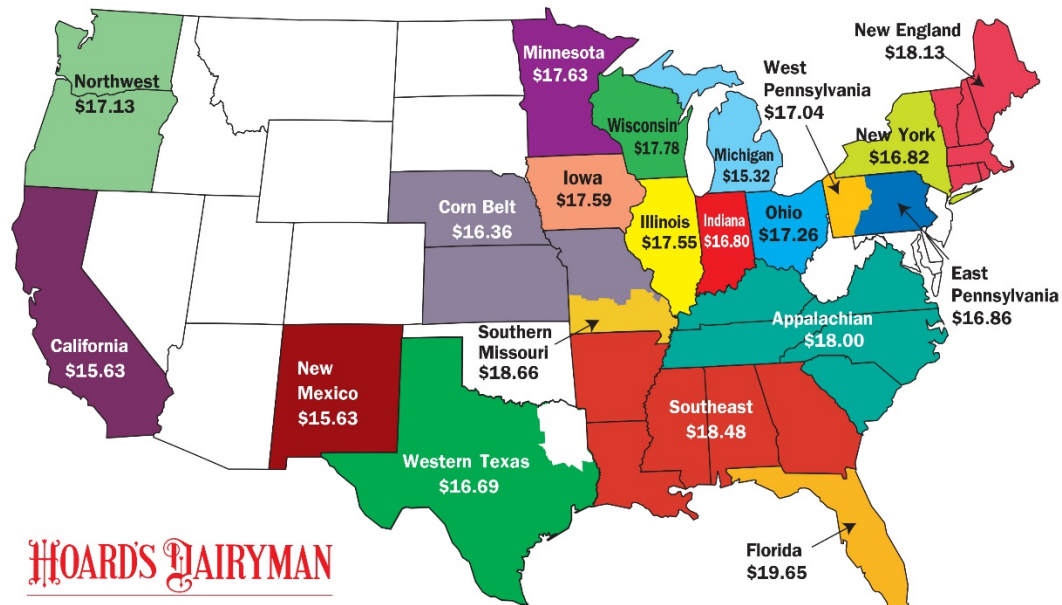


Figure 2. September 2016 Mailbox Prices (Hoard's Dairyman, Mailbox Prices; USDA-AMS, Mailbox Milk Prices)

Diversion limits have the potential to benefit both producers and processors, but their impact on producers in milk-deficit areas has been subject to much debate. For producers in milk-surplus areas, diversions are helpful because they allow those producers within the regional boundaries to receive a potentially higher price than if they had to transport their milk to another order.

The diversion limits also benefit the milk processors by allowing them to have a “cushion” in their milk supply. Processors need to acquire a certain amount of milk to meet their demand. In order for processors to successfully meet that demand they have to obtain more milk than what they actually plan to process. One reason for this is that milk brought in for processing has to be tested for antibiotics. If a truck comes in that tests positive for antibiotics, that milk will have to be turned away and discarded or used for a different purpose. The diversion limits allow processors and cooperatives to plan and prepare for the amount of milk that could arrive and test positive for antibiotics. However, an FDA study showed that less than 1% of milk tests positive for antibiotics (FDA, 2015). Another reason for diversion limits is that they also help provide a supply cushion in case a producer is not able to produce as much milk as they have in the past or are contracted to produce. However, in orders like the south where milk supply is not as high, higher diversion limits negatively impact the price that producers receive for the milk they produce as a portion of this milk is diverted to lower classes. The attractiveness or unattractiveness of diversion limits depends on an order's milk supply market and the type of plants located within the order (Cotterill, 2005).

Transportation Credits

Along with diversion limits, transportation credits are another distinctive trait of the Appalachian and Southeast Orders. The Appalachian, Florida, and Southeast Orders are unique in their milk deficit status. Each order's inability to produce enough milk for the processor's demand within each of their regions causes cooperatives and processors to have to look elsewhere for milk in order to obtain enough each month for their demands. The need to procure milk from outside the order creates an added transportation expense for milk processors. Due to the milk deficit status of both the Appalachian and Southeast Orders, transportation credits have been implemented within each order. The Appalachian and Southeast Orders are the only orders out of the 10 that have transportation credits, at the time this publication was written (USDA-AMS, A Primer on Federal Order Transportation Credits, 2010).

So where does the money come from to pay for the transportation credits? Dairy processors and milk handlers pay a set amount each month based on how much Class I milk they receive or handle. This monthly payment goes into what is called a "transportation credit balancing fund" or what is also referred to as TCBF. Milk processors can then request payment from the TCBF during the months of January, February, and then July through December. These transportation credits provide another incentive for processors to bring outside milk into the southern regions. However, there are two stipulations to request money from the TCBF. A transportation credit primer that was developed to help explain transportation credits details these stipulations:

"In addition, bulk milk eligible to receive payment from the TCBF must...

1. Come from dairy farmers whose milk was not pooled on that order for more than 45 days during the immediately preceding months of March through May,
2. Or from farmers with not more than 50 percent of their total production pooled on that order in those 3 months. (USDA-AMS, A Primer on Federal Order Transportation Credits, 2010)."

The current monthly assessment rates for the Appalachian and Southeast Orders are \$0.15 per hundredweight and \$0.30 per hundredweight, respectively. The transportation credit monthly rates have varied in the past since when the fund was established in 1996.

Delivery Day Requirements

The third unique quality of the Southern orders are delivery day requirements. Delivery day requirements are the amount of days out of a month that a producer has to deliver their milk to an order to be able to have their milk pooled on that order. Most orders have a delivery day requirement of one day, including the Appalachian and Southeast Orders. However, Florida is an exception because they have a ten-day delivery requirement. This means that a producer has to have their milk delivered to Florida ten days out of the month in order to have their milk pooled on the Florida Order.

Since Florida has high Class I utilization, the delivery day requirements are good for milk producers within the order by discouraging excess milk. On the other hand, the ten-day delivery requirement could be good for plants within Florida's regional boundaries since

it potentially could ensure they have enough supply. Florida has a very high uniform price thanks to their high Class I utilization and this can attract milk from outside of the order, but producers or cooperatives who want to receive Florida's high uniform price have to make a commitment to the pool plants for a longer period of time.

The Florida Order

Florida is a very different order than the other nine milk marketing orders. The main differences are a high (if not, the highest average) Class I utilization percentage, extremely low diversion limits, and ten-day delivery day requirements. Florida is also different because its regional borders, with the exception of a small area in the Western Panhandle, is simply the state of Florida. All milk marketing orders, except for Arizona and Florida, are comprised of multiple states. Florida has the highest Class I differentials in the country, in addition to its high Class I utilization levels. The result is that producers receive higher milk prices in Florida than the other orders. Due to their uniqueness, Florida is an excellent example to consider when exploring whether lower diversion limits are an efficient way to handle the Appalachian and Southeast Orders increasing milk deficit status.

While milk production in the Southeast Order has been decreasing, the Florida Order's production has been able to stay relatively constant ranging between 2,127 and 2,536 million pounds over the past 21 years from 1990 and 2011. At the same time, the Southeast's milk production has decreased from 14,440 million pounds in 1980 to 9,096 in 2011 (Covington, 2012).

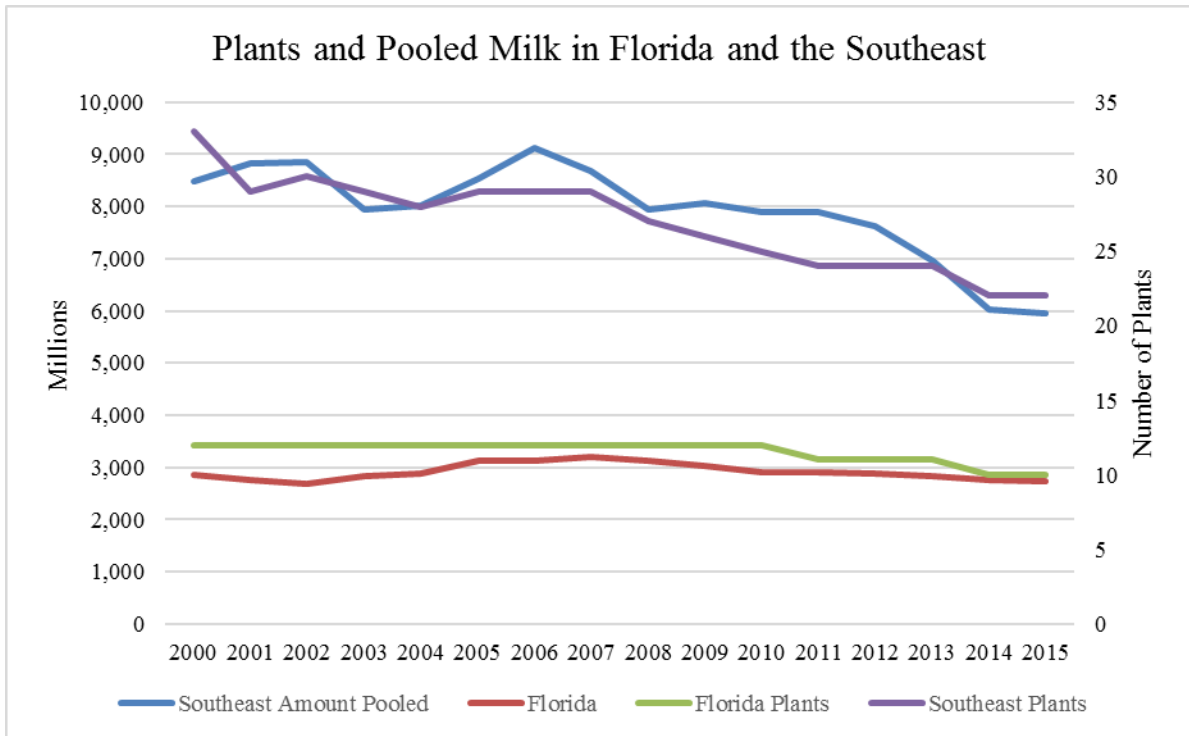


Figure 3. Pooled Milk and Plants in Florida and Southeast Orders (USDA-AMS, Florida and Southeast Marketing Areas, Statistical Reports)

Florida has a small number of pool plants compared to the other orders. Between 2000 & 2015 the Florida Order, Order 6, has decreased from 12 pool plants to 10 pool plants. The Upper Midwest Order, Order 30, had as many as 66 pool plants in 2014 and the Southeast Order, Order 7, had 22 pool plants in 2015. The low number of pool plants coincides with the lower amount of milk that is pooled on Order 6. It is also interesting that the number of cooperatives operating as pool handlers in Florida increased from 2 in 2000 to 7 in 2013 and then 6 in 2015. This shows that it is possible for cooperatives to process and obtain enough milk in the order for pool plants to meet their demand despite low diversion limits. The amount of pooled milk and number of plants in the Florida and Southeast Order can be viewed in Figure 4.

In 2000, the Florida diversion limits alternated between 20%, 25%, and 40%. Starting in November 2001 the diversion limits were lowered to 10%, 15%, and 20%. The diversion limits vary seasonally based on supply and demand. The months of July through November have a diversion limit of 10%, December through February are 15%, and March through June are 20%. The lowest diversion limit of 10% signals that demand could either be lower or supply could be higher during those months. A higher diversion limit of 20% could be because supply is low or demand is high meaning that processors need to secure a larger amount of milk.

Florida lowered their diversion limits after a request from a cooperative that marketed a majority of the Florida Order's milk. The request came before the market administrator and an investigation was conducted. The market administrator's investigation concluded that financial damage could occur to milk producers who regularly supply plants that are regulated on the Florida Order (USDA-AMS, Notice of Decision to Revise Diversion Percentage Limits, 2001). This financial damage could occur because of an excess amount of milk being pooled that is "not needed to meet the fluid demands of the market" (USDA-AMS, Notice of Decision to Revise Diversion Percentage Limits, 2001). The market administrator did not discuss what the details of the financial damage could be. However, the memo that announced the decreased diversion limits as a result of the request mentioned that the cooperative that made the request supplied 97 percent of the milk on the Florida Order.

Florida Compared to the Appalachian and Southeast Orders

The Florida Order has some similarities to the Appalachian and Southeast Orders. All three orders suffer from milk deficits and have lower diversion limits than the rest of the milk marketing orders. While there have been requests to lower the diversion limits on the Southeast Order, the most recent request was to lower the limit to 0%, which is not a feasible percentage, and was denied (USDA-AMS, Florida and Southeast Marketing Areas, Combined Comments, 2014). Part of the discussion with changing/lowering the diversion limits for Orders 5 and 7 is whether lowering the diversion limits is a feasible task that would not hinder supply and demand within the regional boundaries. While the Florida Order is not the same in all aspects as the Appalachian and Southeast Orders, Order 6 does show that it is possible to have lower diversion limits and still meet

processors demand, while at the same time providing a “cushion” to make sure plants are able to obtain enough milk to process.

Comparing the Florida Order with the Appalachian and Southeast Orders we see lower diversion limits, higher delivery day requirements, and a much smaller regional boundary. The Florida Order has been able to maintain relatively stable milk production over the past 15 years. There has also been a decrease in pool plants, though there has been an increase in cooperative-handler plants. While Florida’s low diversion limits and extremely high delivery day requirements have not been statistically proven to be the reason for Florida being a successful order – it is still milk deficit – the state has been able to maintain production over the years. The high delivery day requirements can be assumed to help the plants with the low diversion limits by ensuring a commitment is made on the producer’s side to guarantee at least ten days of milk to the order. These tools could have implications for the Appalachian and Southeast Orders to potentially modify their own marketing orders in the future.

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Glossary

Class I Differentials: A differential that is added to the Class I Skim Milk Price. The differential is based on location and can range from \$0.00 to \$4.50.

Diversion Limits: The maximum percentage of pooled milk within a federal milk marketing order that a pool plant may divert to a non-pool plant.

Mailbox Price: The net price received by dairy farmers at their farm gates. This includes all payments received for milk sold less the cost associated with marketing the milk (Mark, et al., 2016).

Non-pool Plant: A plant that is fully regulated by another federal order, a producer-handler plant, a partially regulated distributing plant, an unregulated supply plant, or an exempt plant (USDA-AMS, Order Regulating the handling of Milk in the Southeast Marketing Area, 2014).

Pool Plant: A fully regulated plant that is either a distributing plant, a supply plant, a plant within the marketing area operated by a coop, or two or more plants operated by the same handler and within the same marketing area (USDA-AMS, Order Regulating the handling of Milk in the Southeast Marketing Area, 2014).

Uniform (Blend) Price: The minimum price in a federal milk marketing order that a milk producer can receive if they pool their milk on that order.

Transportation Credits: Funds that are gathered into a Transportation Credit Balancing Fund and can be used to aid plants in bring in milk from out of the order

Delivery Day Requirements: The amount of days a producer or cooperative is required to deliver milk to a pool plant in order for their milk to be pooled on an order.