AFBF FEDERAL MILK MARKETING ORDER WORKING GROUP
BACKGROUND ON SOUTHEAST MILK PRODUCTION
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Issue:

This paper analyzes the factors contributing to the decline of the farm-level dairy sector in the southeastern portion of the U.S. between 2004 and 2018. For the purposes of this paper, the Southeast is composed of 12 states: Louisiana, Arkansas, Missouri, Mississippi, Alabama, Tennessee, Kentucky, Florida, Georgia, South Carolina, North Carolina and Virginia. In general, the farm-level dairy sectors in these states are somewhat similar, with the exception of Georgia and Florida, where dairy farms are three- to six-times larger than the average Southeast dairy farm.

Background:

Changes in Milk Production

Changes in milk production in the Southeast have been dramatically different compared to the U.S. as a whole over the past 15 years, as Table 1 illustrates. In the Southeast, milk output declined 16% in that time period, dropping from 10,692 million pounds in 2004 to 9,032 million pounds in 2018. However, the U.S. overall experienced output growth of over 27%, from 170,805 million pounds to 217,575 million pounds, between 2004 and 2018. Alabama, Arkansas, Kentucky, Louisiana, Mississippi and Tennessee recorded declines in milk output varying from 30% to almost 80% during this time span. In contrast, Florida's and Georgia's milk output increases ranged from over 5% to almost 25%, respectively, between 2004 and 2018.

Table 1 demonstrates how the Southeast failed to produce enough raw milk across the region to satisfy even fluid needs. For the 12-state region, there was enough milk produced to meet fluid use demand during 2004 (assuming fluid consumption of 150 pounds. per capita). However, with declining milk output and increasing population/demand, the Southeast was unable to harvest adequate milk supplies to satisfy Class I needs during 2018. In fact, the Southeast region was only able to produce enough milk to meet about 73% of its fluid dairy product demand in 2018. A look at total dairy product demand across all milk classes (assuming total dairy consumption of 600 pounds per capita) shows these 12 states met less than 20% of their total milk needs during 2018.

Conversely, Table 1 reveals an entirely different situation for selected major milk producing states. Over this same 15-year period, milk output grew by more than 10% in California and more than doubled in Texas. All of these selected states and the U.S. as a whole were able to produce enough milk to satisfy total dairy use needs. Furthermore, the amount of excess milk produced increase between 2004 and 2018. In summary, Table 1 demonstrates one fact very clearly: The Southeast continues to be a

milk deficit region where the magnitude of the deficit has only enlarged over the past 15 years.

Seasonality of Southeast Milk Production

The contra-seasonal patterns of milk production and dairy product demand exasperates the milk deficit and balancing problem in the Southeast. Heat and humidity are the bane of dairy farmers in the Southeast because they cause considerable peaks and ebbs in seasonal milk production. For example, milk output peaks during the spring flush months of March, April and May when there are mild temperatures and adequate pasture forages then declines gradually by as much as 50% as cows suffer the persistent effects of heat stress during September and October. It seems bizarre that cooperatives must find milk plants to accept excess milk supplies from the Southeast during the spring flush, shipping this distressed milk as far away as Minnesota and Wisconsin. Despite being deficit year-round (as Figures 1 and 2 show), the lack of coordination among cooperatives and handlers compels occasional shipments of distressed milk from the Southeast which has been displaced by imported milk supplies. Conversely, milk production ebbs during the late summer and early fall as dairy cows suffer from the lingering effects of heat stress, forcing cooperatives and handlers to search far and wide for needed milk.

To demonstrate the size and significance of these swings in seasonal milk output in their respective orders, the market administrators for FO #5 and FO #7 produced charts illustrated in Figure 1 and Figure 2. These figures reveal seasonality of milk output in these federal orders.

The red line in Figure 1 illustrates the in-area production line and also shows the variation in the seasonality swings that occurred over the 3-year period in the Appalachian order. The change in the high production month to the low production month was 10% in 2011, while the decline increased to 26% in 2012. Furthermore, the chart shows how milk output seasonality influenced the size of monthly fluid demand deficits (the difference between the blue and red lines) ranging from lows of 3 million pounds to about 6 million pounds from 2011 to 2014.

Figure 2 shows the same information for the Southeast order. The red, in-area production line illustrates the variation in the seasonality swings that occurred over the three-year period. The change in the high production month to the low production month was 27% in 2011, while the decline increased to 42% in 2012 and 38 percent in 2013. In addition, the graph reveals how output seasonality was more pronounced and caused the magnitude of monthly fluid demand deficits to increase from lows of 2 million pounds to as much as 8 million pounds over this period.

Problems Plaguing Balancing Milk Supplies

The milk supply balancing problem is the result of a combination of physiological, environmental and economic factors. The relentless decline in raw milk output across this 12-state area is demonstrated in Table 1. This table reveals that all of these

southeastern states were “milk deficit” during 2018, requiring them to import milk from outside the region to satisfy their population’s dairy product demands.

Another paradox in the Southeast market is the 55% to 75% range in Class I utilization during the year. Class I’s relatively low utilization rates have been blamed on contractual arrangements with suppliers who are providing this imported milk. To provide incentives for handlers outside the Southeast to provide milk during the deficit months, cooperatives must agree to accept and pool their milk year-round, even when this additional milk may not be needed.

The imported milk usually comes from as far away as West Texas, New Mexico, Indiana and Wisconsin, driving up acquisition and transportation costs. Additionally, dairy farmers are worried because most dairy cooperatives have “full supply” contracts with their processor customers. Contract specifications require the processor to purchase all of their raw milk from the cooperative and the cooperative is obliged to meet all of their raw milk needs. When milk supplies fall short, the cooperative must find, purchase and pay for the shipping of these additional milk supplies. A major milk cooperative estimated the cost of transporting milk from Clovis, New Mexico, to major cities in the Southeast ranged from $5.00 to $7.50 per hundredweight during the summer of 2006. Class I price differentials and transportation credits provided from dairy processor assessments to help pay for these imported supplies fail to cover the significant expense of importing the additional milk. Dairy industry experts estimate that the outlays for importing milk supplies have totaled more than $30 million annually, which depresses farmers’ revenues.

Dairy farmers are duly troubled about the rising costs of balancing milk supplies not only in the Southeast as described here, but across the U.S. This geographic evolution of milk production has caused a structural transformation of the dairy industry and has placed extreme economic and financial stresses on dairy farmers.

Current Farm Bureau Policy:

We support revisions to the Federal Milk Marketing Order System to increase touch-base days required by milk handlers, producers and sellers outside an order.

We support a reform of transportation credit regulations to eliminate producers in a deficit area bearing costs of transporting milk into the area.

Table 1. 2004 vs. 2018 Milk Production and Demand Demand Statistics -- 11 Southeastern States versus California, Idaho, New Mexico, Texas, & Wisconsin and the U.S.

	Alabama	Arkansas	Florida	Georgia	Kentucky	Louisiana	Mississippi	N. Carolina	S. Carolina	Tennessee	Virginia	11-SE State TOTAL	California	Idaho	New Mexico	Texas	Wisconsin	Total U.S.
										millions of lbs								
MILK PRODUCTION																		
Total 2004	245	318	2,253	1,416	1,423	479	379	1,006	287	1,155	1,731	10,692	36,465	9,093	6,710	6,009	22,085	170,805
Total 2018	73	74	2,381	1,766	1,009	152	129	937	242	634	1,635	9,032	40,413	15,149	8,285	12,852	30,579	217,575
% Change 04 vs 18	-70.20%	-76.73%	5.68%	24.72%	-29.09%	-68.27%	-65.96%	-6.86%	-15.68%	-45.11%	-5.55%	-15.53%	10.83%	66.60%	23.47%	113.88%	38.46%	27.38%
2004																		
Population	4,530,182	2,752,629	17,397,161	8,829,383	4,145,922	4,515,770	2,902,966	8,541,221	4,198,068	5,900,962	7,459,827	71,174,091	35,893,799	1,393,262	1,903,289	22,490,022	5,509,026	293,655,404
DAIRY DEMAND										millions of lbs								
lbs.produced per capita	**54**	**116**	**130**	**160**	**343**	**106**	**131**	**118**	**68**	**196**	**232**	**150**	**1,016**	**6,526**	**3,525**	**267**	**4,009**	**582**
Class I - 150 lbs	679.53	412.89	2,609.57	1,324.41	621.89	677.37	435.44	1,281.18	629.71	885.14	1,118.97	10,676	5,384.07	208.99	285.49	3,373.50	826.35	44,048
Class I & II - 300 lbs	1,359	826	5,219	2,649	1,244	1,355	871	2,562	1,259	1,770	2,238	21,352	10,768	418	571	6,747	1,653	88,097
Total - 600 lbs	2,718	1,652	10,438	5,298	2,488	2,709	1,742	5,125	2,519	3,541	4,476	42,704	21,536	836	1,142	13,494	3,305	176,193
% deficit of Class I Demand	-63.95%	-22.98%	-13.66%	6.92%	128.82%	-29.28%	-12.96%	-21.48%	-54.42%	30.49%	54.70%	0.15%	577.28%	4250.94%	2250.32%	78.12%	2572.58%	287.77%
% Produced of Class I Needs	36.05%	77.02%	86.34%	106.92%	228.82%	70.72%	87.04%	78.52%	45.58%	130.49%	154.70%	100.15%	677.28%	4350.94%	2350.32%	178.12%	2672.58%	387.77%
% Produced of Class I & II Needs	18.03%	38.51%	43.17%	53.46%	114.41%	35.36%	43.52%	39.26%	22.79%	65.24%	77.35%	50.07%	338.64%	2175.47%	1175.16%	89.06%	1336.29%	193.88%
% Produced of TOTAL Needs	9.01%	19.25%	21.58%	26.73%	57.20%	17.68%	21.76%	19.63%	11.39%	32.62%	38.67%	25.04%	169.32%	1087.74%	587.58%	44.53%	668.15%	96.94%
2018																		
Population	4,887,871	3,013,825	21,299,325	10,519,475	4,468,402	4,659,978	2,986,530	10,383,620	5,084,127	6,770,010	8,517,685	82,590,848	39,557,045	1,754,208	2,095,428	28,701,845	5,813,568	327,167,434
DAIRY DEMAND										millions of lbs								
lbs.produced per capita	15	25	112	168	226	33	43	90	48	94	192	109	1,022	8,636	3,954	448	5,260	665
Class I - 150 lbs	733.18	452.07	3,194.90	1,577.92	670.26	699.00	447.98	1,557.54	762.62	1,015.50	1,277.65	12,389	5,933.56	263.13	314.31	4,305.28	872.04	49,075
Class I & II - 300 lbs	1,466	904	6,390	3,156	1,341	1,398	896	3,115	1,525	2,031	2,555	24,777	11,867	526	629	8,611	1,744	98,150
Total - 600 lbs	2,933	1,808	12,780	6,312	2,681	2,796	1,792	6,230	3,050	4,062	5,111	49,555	23,734	1,053	1,257	17,221	3,488	196,300
% deficit of Class I Demand	-90.04%	-83.63%	-25.47%	11.92%	50.54%	-78.25%	-71.20%	-39.84%	-68.27%	-37.57%	27.97%	-27.09%	581.09%	5657.20%	2535.90%	198.52%	3406.62%	343.35%
% Produced of Class I Needs	9.96%	16.37%	74.53%	111.92%	150.54%	21.75%	28.80%	60.16%	31.73%	62.43%	127.97%	72.91%	681.09%	5757.20%	2635.90%	298.52%	3506.62%	443.35%
% Produced of Class I & II Needs	4.98%	8.18%	37.26%	55.96%	75.27%	10.87%	14.40%	30.08%	15.87%	31.22%	63.98%	36.45%	340.55%	2878.60%	1317.95%	149.26%	1753.31%	221.68%
% Produced of TOTAL Needs	2.49%	4.09%	18.63%	27.98%	37.63%	5.44%	7.20%	15.04%	7.93%	15.61%	31.99%	18.23%	170.27%	1439.30%	658.97%	74.63%	876.66%	110.84%

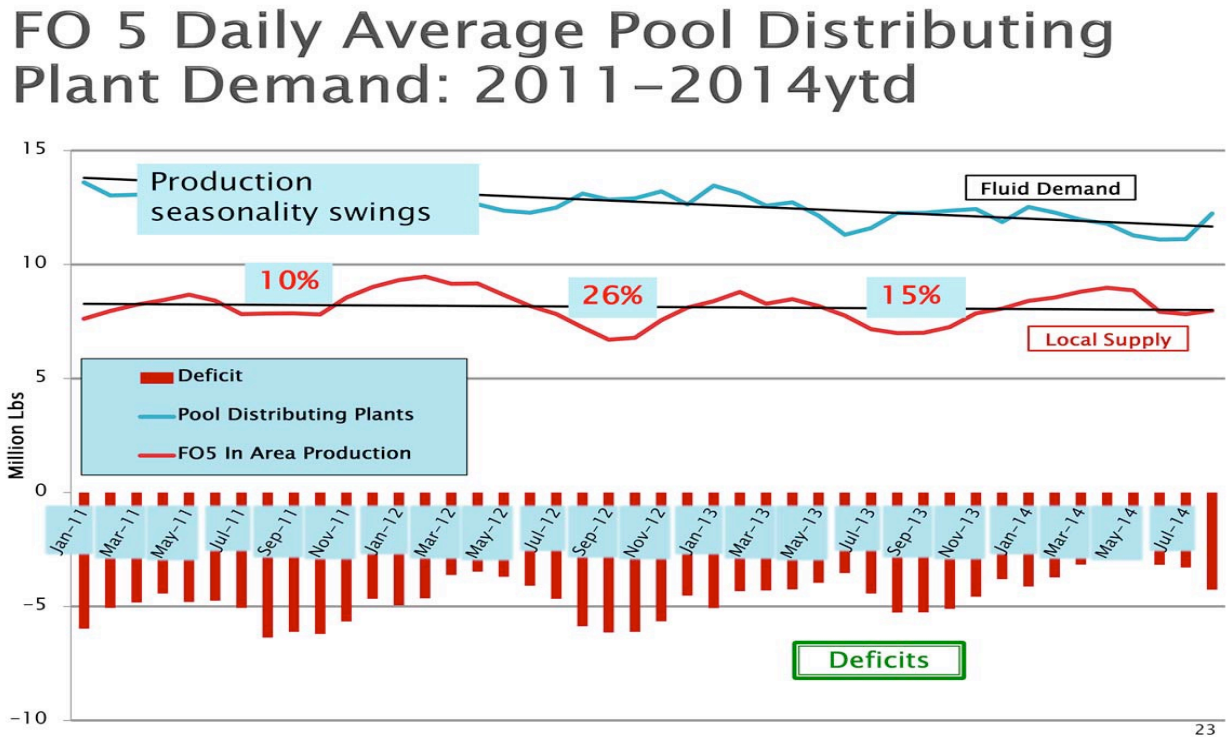

Figure 1. Source: Appalachian Federal Order Market Administrator

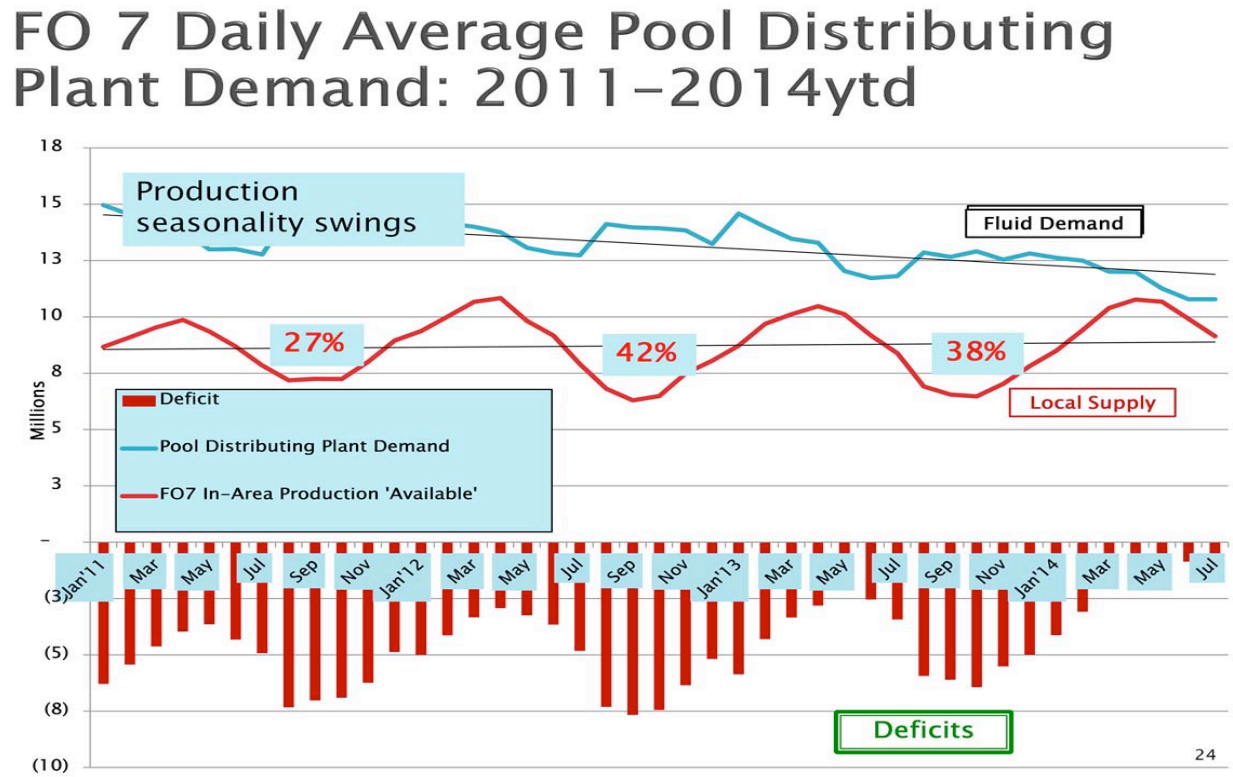

Figure 2. Source: Southeast Federal Order Market Administrator