

**BEFORE THE UNITED STATES DEPARTMENT  
OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE**

**In the Matter of** :  
**Milk In The Northeast** : **Docket Nos.:**  
**Marketing Area** : **AO-14-A70 et al;**  
 : **DA-02-01**  
 :

**Testimony of**

**Dennis Schad  
Land O' Lakes, Inc.**

**on behalf of the  
Association of Dairy Cooperatives  
in the Northeast**

**Proposal # 7**

**September 10, 2002  
Alexandria, Virginia**

## **ADCNE Day of the Week Delivery Data**

### **ADCNE data demonstrates a 20 percent operating reserve in Order 1.**

My name is Dennis Schad and I am employed by Land O'Lakes, Inc. My title is Economist and Director of Middle Atlantic Marketing. I have worked at Land O'Lakes and its predecessor cooperatives for 21 years. During my tenure I have worked in the field with the membership, managed transportation, marketed milk and finished dairy products and have regulatory responsibility for the Northeast. I have a Bachelor's degree in History from the College of William and Mary and a Masters Degree in Business Administration from Virginia Tech.

Land O'Lakes is a Capper-Volstead cooperative with a national membership base. In the Northeast Land O'Lakes has over 2,200 members who are pooled on Order 1. The cooperative owns and operates an Order 1 pooled butter/powder plant located in Carlisle PA.

I am testifying at this hearing on behalf of the Association of Dairy Cooperatives in the Northeast.

In his report Cost of Balancing Milk Supplies: Northeast Regional Market, Charles Ling defines two levels of reserves required for the efficient operation of the Northeast Class I market. Dr. Ling defines those reserves as *Operating Reserves* and *Seasonal Reserves*. He defines *Operating Reserves* as those milk reserves that ensure a sufficient supply of milk for the daily-fluctuating fluid demands encountered by distributing plants (Exhibit 12, p.2). The daily deliveries of milk to Class I plants reflect the daily purchasing behavior of consumers. In the Northeast market cooperatives balance the Class I plants by delivering varying daily volumes to those plants.

Dr. Ling was specific and stated that the *Operating Reserve* must cover the daily fluctuations of fluid milk processing. This concept of operating reserves in dairy is much like the requirements of the electrical industry. The electrical industry must have sufficient power reserves for the highest day of usage. The consequences of inadequate reserves of electrical power are brownouts or blackouts. The consequence of inadequate reserve milk supplies is empty store shelves.

Dr. Ling's study calculates the market costs of balancing the Northeast market under two assumptions: first, that the required operating reserve is 10 percent; and another assumption that the required operating reserve is 20 percent. While Dr. Ling could calculate the Seasonal Reserve from published monthly market data, no such data exists for day of the week milk deliveries in Federal Order 1. Data from the proponent cooperatives show that the Northeast market requires a 20 percent operating reserve

The Market Administrator has presented data that shows that milk from non-members is disproportionately delivered to distributing plants. Market Administrator Appendix 15 reveals that as much as 80 percent of non-member milk, associated with Order 1, is delivered to Order 1 distributing plants. Obviously the non-member milk supply of Order 1 provides little of the operating reserves of the market. If receipts at distributing plants differ on a daily basis, then the extent of those fluctuations (operating reserves) are accommodated by cooperatives.

Recognizing there is no published day of the week delivery data for the Northeast Order, ADCNE surveyed its members for day of the week distributing plant delivery demands. Each cooperative sent to me its daily deliveries to Order 1 pool distributing plants for May and November 2001 (Exhibit \_\_\_\_, Table 1-A and 1-B). Table 1 lists the aggregate deliveries to distributing plants by the cooperatives (Agri-Mark, Dairy Marketing Services (Dairylea and DFA), Land O'Lakes, Maryland and Virginia, and St. Albans). Column 4 of the Table compares each day's deliveries to the monthly-daily average. On Thursday May 17, distributing plants ordered from the cooperatives 19 million pounds of milk, which was 16.6 percent greater than the daily monthly average of 16.3 million pounds. On Monday November 19 the cooperatives delivered 21.8 million pounds to Order 1 distributing plants, which was 17.5 percent greater than the daily monthly average of 18.6 million pounds.

The extremes of Class I balancing are shown through the range of cooperative deliveries to distributing during the month. During both months the cooperatives' distributing plant customers required a 7.5 million-pound swing between the low delivery day and the high delivery day. On May 27 the distributing plant demand was 11.5 million pounds, while the May 17 high delivery day was 19 million pounds. Similarly, the low demand day in November was the 22<sup>nd</sup> when distributing plants required only 14.3 million pounds compared to the 21.8 million pounds demanded on the 19<sup>th</sup>. Moreover, the cooperatives are expected to accommodate for their Class I customers the difference between the low day in May, 11.5 million pounds, and the high day in November, 21.8 million pounds. (Exh. \_\_\_\_, Table 2) This 11.5 million pound range in deliveries is roughly equal to the four 3 million pound per day butter-powder plants identified by Dr. Ling as required to balance the Northeast Class I market with a 20% operating reserve.

### **Land O'Lakes experience supports Dr. Ling's estimates for a balancing plant.**

Land O'Lakes operates a butter-powder plant in Carlisle PA. The plant is pooled on Federal Order 1 as a supply plant. There are three operational dryers and three evaporators located in the plant. It has a design through-put of about 165 million pounds per month and a storage capacity of around 5 million pounds of milk. During the last two and a half years, the period since the commissioning of the new dryers, milk receipts have ranged from a low of 62.5 million pounds during October 2000 to a high of 165.7 million pounds during May of 2002.

Dr. Ling estimates that the cost of a "greenfield" butter-powder plant with the capacity to dry 3 million pounds of milk per day to be \$28 million. Land O'Lakes' engineering staff estimates that such a plant today would cost \$47 million (Exhibit \_\_\_\_, Table 3). Land O'Lakes' estimate is confirmed by WestFarm Foods' experience in Jerome, Idaho. As reported in the August 6, 2002 edition of The Cheese Reporter, a WestFarm representative stated that their 3.3 million-pound per day powder drying plant recently opened in Jerome cost \$50 million. The Land O'Lakes estimate includes the purchase of land, the evaporator and dryer for 3 million pounds of milk per day and the churn capacity for 15,000 of butter per hour. Additionally the plant would have 3 loading bays, an adequate waste water treatment plant and silo capacity for 3 million pounds of milk.

Dr. Ling defines plant manufacturing costs as the costs directly associated with manufacturing milk to its end products, powder and butter. These costs include labor, electricity, fuel, water and sewage, plant and cleaning supplies, repair and maintenance, depreciation, taxes and insurance, and miscellaneous expenses. He notes that unit costs increase as plant volume decreases. From previous studies and assuming no shipments of intermediate products, Dr. Ling estimates that for every one-percent (1%) decrease in plant capacity, there is a corresponding increase to product cost of \$.001 per pound (Exhibit 12, p. 6).

While the Ling study compares the relationship between plant capacity and product costs, Land O'Lakes tracks the same costs as Ling's "semi-variable or semi-fixed" costs on a per pound of milk solids basis. Additionally the USDA study assumes a butter/powder plant with no intermediate product inputs or sales. The Land O' Lakes' plant at Carlisle buys and sells cream, condensed and milk. During 2001, the Land O'Lakes' plant in Carlisle sold about 20 percent of its total solids as condensed skim or cream.

Exhibit \_\_\_\_, Table 4 is a graph that plots Land O'Lakes' experience at Carlisle for the period January 2001 through July 2002. The period was chosen because the depreciation of the 2000 expansion started to be fully charged against the plant beginning January 2001. A month's cost per pound of solids is plotted against the relationship of plant receipts over plant capacity. For instance, as already noted Carlisle processed over 165 million pounds (100 per cent of capacity) of milk during May 2002. During that

month the cost per pound of solids was just over \$0.10 per pound; thus, the furthest right data point on the graph represents May 2002. Similarly, the other 18 months are so plotted. The best-fit line that minimizes the variation between the points is also plotted.

That line estimates that for every 1 per cent change in Carlisle plant capacity, there is 7.7 hundredth's cent increase in the cost per pound of total solids. Again, the Land O' Lakes report substitutes the relationship of capacity utilization to cost per pound of product for the relationship of capacity to cost per pound of total solids. Also, the Carlisle plant buys and sells intermediate products, while the Ling study addressed the cost change for hard finished products only.

Dr. Ling has modeled the most efficient method to balance the seasonal and operating reserves of the Order 1 Class I market. He has calculated that it would require four butter/powder plants with the capacity of 3 million pound per day to accomplish the balancing of the necessary reserves of the Northeast market. Dr. Ling's optimal balancing model does not reflect the actual balancing operations of the Northeast. There are seven balancing plants on the Northeast of varying sizes and capacities. Dr. Ling assumes that each plant receives an equal volume of milk. Due to ownership and logistic reasons, that assumption does not reflect reality in the Northeast. Other testimony will show that the balancing capacity of the Order is not equally utilized. Land O'Lakes' relatively high capacity utilization does not reflect the operations of the other Northeastern balancing plants. Thus, costs at the Land O'Lakes' plant are probably lower than the other older, less utilized Northeastern balancing plants.

Land O'Lakes replicated Dr. Ling's methodology for finding the cost of unused capacity at Carlisle during the last 19 months and compared that cost to the amount Land O'Lakes would have received had Proposal 7 been in effect for the period. The cost of unused capacity was 2.3 times greater than the amount Land O'Lakes would have received.

ADCNE believes that the experience at Land O'Lakes Carlisle plant provides a real world validation of Mr. Ling's observations relative to the effect of plant capacity on per unit costs.