The Feasibility of Shipping Vermont Milk to the Southeastern Seaboard via Refrigerated Rail

This report examines the feasibility of shipping Vermont milk to the southeastern seaboard, whether by refrigerated railcar, trucking or alternative methods. The viability of long-distance milk transportation is limited by stringent federal regulations surrounding perishable products, and while the infrastructure to do so is in place, unstable market demand for Vermont milk makes it unlikely that shipping milk to the southeastern seaboard would result in increased profits for Vermont dairy farmers.

Legal Stipulations

According to federal regulations, milk must be transported to its destination within 72 hours so as to ensure that it will not spoil.¹ The current rail infrastructure would not be capable of transporting milk that quickly, thus failing to adhere to federal regulations.² A possible solution to this dilemma would be to convert the milk being transported into dry milk, overcoming the spoilage issue.³

Infrastructure

The infrastructure to support refrigerated cars on rail does exist but problems arise when attempting to use them for shipping bulk milk. Milk is a perishable commodity that would not remain fresh in the amount of time needed for a refrigerated rail car to travel from Vermont to the southeastern seaboard. Refrigerated rail cars generally only transport non-perishable and frozen items because of the long distances they travel.⁴ Rail cars from Vermont currently ship primarily animal feed, a less time-sensitive commodity, to the southeastern seaboard.⁵ The other issue with refrigerated rail cars is that they need to factor in extra stops during transportation for refueling.⁶ The time frame for a freight train to transport milk from Vermont

¹ Dave Geraci, Vermont Railway System Director of Marketing and Sales, Interview, March 31, 2012.
² Dave Geraci, Interview, March 31, 2012.
³ Dave Geraci, Interview, March 31, 2012.
⁴ Dave Geraci, Interview, March 31, 2012.
⁵ Dave Geraci, Interview, March 31, 2012.
⁶ Dave Geraci, Interview, March 31, 2012.
to the southeastern seaboard would take at least 12 days. Its process to travel to the southeastern seaboard would start at the farm being loaded onto a truck, brought to the rail, loaded up, sent out, and reconnecting to other rails and refrigerated cars would need extra stops for refueling. For more time sensitive issues, rail is outweighed by the efficiency of truck.

Cost-Effectiveness

A major issue for shipping milk to the southeastern seaboard is the lack of a market for Vermont milk there. There is no specific demand for Vermont milk on the southeastern seaboard because milk is a commodity that can be acquired more locally, fresher and cheaper. States closer to the southeastern seaboard actually produce much larger quantities of milk than Vermont does. Vermont ranks as 17th in terms of states for highest milk production, whereas Pennsylvania ranks at 3rd; so, states in the southeastern seaboard are more apt to get their milk from Pennsylvania rather than Vermont. Vermont has not utilized rail for dairy purposes in recent years. Recently the Northeast has become a milk deficit region due to intense competition from Greek-style yogurt companies driving Vermont milk to be used for yogurt production. Implementing refrigerated rail cars are also a huge financial investment (costing hundreds of thousands of dollars) that might not see an adequate return.

Conclusion

While transporting milk via rail would alleviate some burden that is currently placed on trucks for shipments, existing rail infrastructure is not in place to sufficiently fulfill this need. Federal regulations for shipping milk require that it be delivered in a strict time frame and this time requirement cannot be met by our slow rail systems. Lastly, the cost investment to build this infrastructure and the cooperation between farmers that would be necessary to achieve the goal of rail shipping milk is a daunting task. While it would be feasible, it is not necessarily economically viable.

This report was completed on April 11, 2012 by Isaac Moche, Xana Raymond, and Aaron Haight under the supervision of graduate student Kate Fournier and Professor Anthony Gierzynski in response to a request from Representative Bill Aswad.

---

7 Dave Geraci, Interview, March 31, 2012.
8 Dave Geraci, Interview, March 31, 2012.
9 Dave Geraci, Interview, March 31, 2012.
10 Bob Parsons, PhD, Extension Associate Professor of the Community Development and Applied Economics Department at the University of Vermont, Interview, March 22, 2012.
12 Leon Berthiaume, CEO of St. Albans Cooperative Creamery, Inc., Interview, March 27, 2012.
13 Leon Berthiaume, Interview, March 27, 2012.
14 Dave Geraci, Interview, March 31, 2012.
Contact: Professor Anthony Gierzynski, 513 Old Mill, The University of Vermont, Burlington, VT 05405, phone 802-656-7973, email agierzyn@uvm.edu.

Disclaimer: This report has been compiled by undergraduate students at the University of Vermont under the supervision of Professor Anthony Gierzynski. The material contained in the report does not reflect the official policy of the University of Vermont.