

Challenges in Northeast Milk Transportation

Introduction:

Challenges in milk transportation are not new. A 1943 report commissioned by the Mississippi Agricultural Experiment Station, entitled, “Problems in the Transportation of Milk from Farms to Milk Plants,” notes many challenges that persist today, including; “a lack of drivers and related personnel”; “low volume routes”; and insufficient compensation for transporters. The report also notes that “Farmers should know what time truckers come for the milk and should have it ready to go at that time. Truckers should not have to wait for the milk, as the rest of the patrons on the routes should be considered.” Thankfully, some of the problems noted in the report have faded, such as war rationing of tires, “muddy unpaved roads”, and challenges with cleaning metal milk cans, however, new problems have emerged in their place (Mebus, 1943). Still, one passage in the report rings remarkably true, 80 years later:

The Economic well-being of farm producers is affected directly and materially by the relative efficiency of the marketing process which includes transporting, processing, and storage of commercial farm products. The proportion of the consumer’s dollar that goes to the “middle man” has been on the increase for the past several years. It is very important, therefore, from the viewpoint of [the] rural economy that the farm marketing system and its operations be carefully and objectively appraised.

A great deal has changed in dairy production and marketing since 1943: The report notes that there were 2.4 cows milked, on average, per farm in the state at that time, and that 60% of the trucks used in milk hauling were 1½-ton capacity. Charges for milk hauling ranged from 10 to 50 cents per hundredweight (cwt.), which, adjusted for inflation, would range from \$1.76 to \$8.76 today.

Methodology:

In preparing this report, we referenced a number of trade publications, and conducted numerous interviews with dairy farmers, milk haulers, cooperatives, handlers and processors. To allow the interviewees to speak candidly, these interviews were conducted on a confidential basis, and only the conclusions from these conversations are presented.

This report focuses on qualitative information, rather than quantitative statistics. There are limited public data available on the milk hauling sector, and quantitative data from businesses is generally considered proprietary. Further research on this topic would be beneficial.

Key Challenges Facing Milk Haulers:

- *Driver shortages:* The American Trucking Associations (ATA) predicts a nationwide shortfall of more than 100,000 truck drivers in 2023 (Putch, 2021). While the exact number of unfilled driving positions could be debated, competition for CDL drivers is certainly fierce. Statistics are that for every nine job postings, the trucking industry hires one driver, compared to the warehousing industry which is able to fill two of every three postings (Bohnert, 2022). Experienced CDL drivers often have multiple suitors, who may offer tempting sign-on bonuses, high salaries, and desirable perks like new equipment, flexible schedules, and less physical work than milk hauling may entail.
- *Regulation:* Trucking, as a safety-sensitive occupation, is necessarily heavily regulated. However, this creates significant barriers to entry for new drivers, as well as operational challenges. Commercial drivers must be licensed and qualified, be in a random drug and alcohol testing pool, use driving logs, and their hours-of-service are limited. Younger drivers may need experience before insurance will cover them, and older drivers need to stay healthy enough to meet federal standards.
- *Driver Hours-of-Service and other regulations:* Limited hours-of-service, combined with delays at the farm or the plant can cause drivers to run out of available hours, and necessitate having a replacement available to take over.
- *Driver demographics:* Many commercial drivers are from the ‘baby boom’ generation and are rapidly aging-out of the industry. According to the ATA, the average age of a U.S. truck driver is over 50, while the average age of all American workers is 42 (Putch, 2021). Meanwhile, there are fewer young drivers in the pipeline to replace them. Younger generations seem less attracted to truck driving, and COVID-19 caused problems for training schools. Many training programs shut down during the pandemic. About 20% never re-opened, and those that have reopened have fewer enrolled students than before.
- *Supply-Chain issues with equipment and parts:* Industry sources suggest that wait times for new trucks and parts to repair older equipment have been extended since the COVID-19 pandemic. Because new trucks are often backordered, many haulers are running older equipment, which need more frequent repairs, increasing demand for parts, and exacerbating parts supply shortages in a negative feedback loop. Some companies report waiting four months or longer for parts needed to get their trucks back on the road. While this may be a significant challenge for a trucking company with multiple power units, it can be devastating for an owner-operator or farm hauler to have their truck parked for months waiting for parts.
- *Extended wait times and limited delivery windows at plants:* Because of, in many cases, years of underinvestment in logistics infrastructure, many plants have insufficient unloading capacity. This results in tight delivery windows at some plants, and often, long wait times. Not only does this idle trucks that could be better utilized picking up milk, but wastes drivers’ available hours-of-service, which are already limited.
- *Plants operating below capacity due to staffing shortages:* Many processing plants are not operating at full capacity and have trimmed operating hours due to staffing shortages.

This may reduce the receiving hours available for haulers as well as limiting the amount of milk they can process.

- *Inadequate farm facilities:* In a similar fashion to the problems at dairy plants, many farms have insufficient storage and loading facilities. Problems range from roadways impassable in certain weather conditions, to bulk tank capacity, cooling capacity, and lack of high-speed pumps to load tankers. Farmers are, in general, inadequately incentivized to invest in loading infrastructure compared to other areas of their farms, and as a result, their limited capital resources are usually directed elsewhere.
- *Inconsistency in weight limits across states:* Today's trucks can safely haul more weight than in the past. A fully-loaded tanker truck equipped with extra axles can haul in excess of 100,000 pounds today, but weight limits, in many areas, have not kept pace with these improvements. In cases where milk must be hauled extended distances, different weight limits among states may require a truck to carry a partial load or unload a portion of its milk before crossing into a new state.
- *Poor public road and bridge infrastructure:* Inadequate infrastructure investment, particularly in rural areas, has left many roads and bridges structurally deficient, requiring restrictive weight limits, which in some cases, require milk trucks to take circuitous routes to their pickup locations.
- *Road closures due to inclement weather:* Several haulers report that, from their perspective, highway closures due to inclement weather are excessive, and may be counter-productive. They note that most highways are usually cleared of snow and safe to traverse well before they are officially reopened to commercial traffic. They also noted that, because cows don't stop producing milk in bad weather, milk still must be picked up, and closing highways merely diverts truck traffic onto state routes and local roads, which may not be a safer scenario than keeping the trucks on interstate highways.
- *Farm attrition and isolation of remaining farms:* While this was not reported as a major issue in New York, New England haulers reported that as farms, particularly smaller farms, exit the industry, remaining farms are sometimes left isolated and "out of the way" from a trucking standpoint. If a rural pick-up route loses its critical mass of farms, and a small farm is left that requires a truck to travel a significant distance to pick up a partial load, it can be uneconomical to serve that farm.

Possible Areas for Improvement:

As noted in the introduction, many of the problems we are experiencing today, have existed, in one form or another, for more than 80 years, and as such, will not be easily remedied.

For example, the challenges relating to driver demographics, societal trends, and record-low unemployment causing a shortage of drivers will be difficult to materially change. However, there are a number of possible areas for improvement. These may require cooperation, investment and commitment from industry, policymakers, and others. Here, in no particular order, are a few recommendations that may alleviate some of the challenges listed above:

- *Increased public investment and access to training programs for young drivers:* Truck driving can be a good-paying job and rewarding career for many young people, but it requires an increasing amount of training and licensing to enter. Increased access to affordable and accessible CDL training programs, particularly in rural areas, could provide a path to a meaningful career for young people and help mitigate a significant driver shortage that exists across the economy, and is not limited to the dairy industry.
- *Improved access to driving careers for young people:* Lowering the age for interstate CDL driving from 21 to 18 would enable young people to get started in a driving career at an earlier age, and increase the supply of drivers for the industry. Because of the age restriction, young people entering the workforce after high school cannot directly start an interstate driving career, and instead choose another path, at least for a few years. Most do not go back and consider becoming a truck driver after embarking on another career. Insurers could also lower the restrictions on insuring younger and less experienced drivers, which would lower the barrier of entry into the industry.
- *More judicious road closures:* In many cases, roads are closed well beyond the true weather emergency. Allowing trucks to use interstate highways (even at a reduced speed) instead of local roads in inclement weather would allow milk trucks to continue to make their pickups during winter weather.
- *More investment and focus on farm-level transportation infrastructure:* Dairy farmers typically have limited capital for farm investment and many competing needs. However, the current structure of hauling assessments leaves little incentive for farmers to invest in things like larger bulk tanks, better refrigeration, high speed pumps, all-weather roads, and other improvements that could make hauling routes much more efficient.
- *More investment and focus on plant-level transportation infrastructure:* Similarly, many plants have not prioritized delivery and unloading infrastructure. Drivers often report waiting many hours to unload at plants. Expanded delivery facilities and streamlined procedures could be implemented to allow milk deliveries to get in and out faster and get back on the road. Limited drop-off windows can be problematic if drivers are delayed due to farm conditions, weather or traffic, and cause extended waits. This can cause additional problems in terms of exhausting drivers limited ‘hours of service’ and has a quality of life impact on drivers which can make the job less appealing, particularly to younger drivers.
- *Consistent weight limits between states:* Differing weight limits and other regulations between states can cause many challenges to transporters. If a truck has to leave New York for a nearby state with a lower weight limit (even if they are merely passing through to another destination), the truck has to either take on a partial load, or unload a portion of their milk before leaving the state. Notably, sometimes trucks are rerouted after leaving their pickup location, and this can be problematic if the new route has an incompatible weight restriction. Truck technology has significantly improved in recent years, and today’s trucks can safely carry more weight than in the past. However, many laws have not kept pace with these improvements. Allowing greater weights, or, in some cases, considering milk an ‘indivisible’ load, could ease these challenges.

- *Infrastructure investment in rural roads and bridges:* In some cases, weight limits on poor condition roads, and particularly, structurally deficient bridges, mean that milk trucks have to take indirect routes along their path to avoid these limitations.

Conclusion:

Milk transportation remains a “pain point” for the dairy industry. Limitations include driver shortages, pick-up and delivery infrastructure, road conditions, regulations, and more. Solving some of these problems will require public and private investment, streamlined regulations, and just generally treating milk logistics as a key component of the dairy industry, rather than as something of an afterthought. The logistics of getting milk from the farm to the plant are complex, expensive, and fraught with challenges, that can cause significant costs and difficulties both upstream and downstream if not managed well.

Other challenges, such as supply-chain problems in getting parts for truck repairs as well as the delivery of new trucks and equipment may resolve over time as the world emerges from COVID-19-induced transportation and manufacturing issues, but this could be expedited by manufacturers, which would be of great help to the industry.

Finally, the resolution of still other problems could require broad societal change, which is of course beyond what industry or policy makers can control. Among these are the decline in interest in blue collar jobs by young people, the aging of the workforce, and the generally tight job market.

References:

In addition to numerous phone interviews with milk producers, haulers, and handlers, whose identities are kept confidential, the following publications are referenced:

Bohnert, Karen, “Behind the Wheel: Milk Haulers are in Short Supply”, Dairy Herd Management, March 18, 2022.

Mebus, W.C., “Problems in the transportation of milk from farms to milk plants”, MAFES Technical Bulletins 6-1-1943, 1943.

Putch, Kristen, “Overcoming Transportation Hurdles”, Dairy Processing, September 10, 2021.

Reff, Caroline K., “Lack of Drivers Tops the List of Trucking’s Biggest Obstacles”, The Business of Dairy, Northeast Dairy, Third Quarter 2021.

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CONTACT INFORMATION

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