



Milk Hauling Cost in Minnesota

Prepared by

Su Ye

Agricultural Marketing Services Division
Minnesota Department of Agriculture

September 2003

The Minnesota Department of Agriculture recently conducted a survey of milk buyers and processors to get first-hand data on milk hauling costs in Minnesota. The purpose of this survey is to determine the true cost of hauling milk, which is not entirely reflected in the reported data published by the USDA. The actual true cost of hauling milk may not only include the hauling charges paid by milk producers as described by the USDA data, but may also entail additional costs paid by haulers, processors, and dairy cooperatives.

In Minnesota and some other states, milk producers normally pay a subsidized rate – a lower rate than the actual cost – for delivering milk to a buyer, who normally pays the difference in the cost. Therefore, even though the hauling charges reported by the USDA ranked Minnesota as one of the lowest among selected milk producing states, the true cost of hauling milk is much higher than what milk producers pay.

The objectives of this survey were to determine the total cost of milk hauling in Minnesota (the average rate per hundredweight), and the true cost on a state-wide average basis. This data will help Minnesota's dairy industry evaluate milk hauling efficiency and milk assembly costs. The Minnesota Milk Producers Association requested assistance in gathering this information.

A total of twelve producer organizations buying Minnesota milk were contacted, and nine responded to our request for milk hauling data. For clarification, this survey and the subsequent analysis do not cover the total milk volume hauled, hauling distances, dairy farm and processor locations, or milk grade. The survey participants provided only relevant information on the actual cost of hauling milk, in some cases, the hauling rate applied to not only Minnesota but also a neighboring state when separate data was not readily available by a multi-state hauler who could only supply company-wide data. To protect data privacy, the names of the individual companies participating in the survey will not be identified but will be listed by number in the source data series.

Total Cost per Hundredweight

The average hauling charge in Minnesota is 57.8 cents per hundredweight, with a high of 81 cents per hundredweight and a low of 41 cents per hundredweight. The median rate is 56.5 cents per hundredweight (Table 1). The data covers the first half of 2003, with the exception of some haulers reporting just the latest available data for 2003.

Table 1: Average Milk Hauling Charges in Minnesota (2003)

Source Data	Rate \$/Cwt.
1	0.45
2	0.64
3	0.51
4	0.52
5	0.67
6	0.41
7	0.50
8	0.65
9	0.61
10	0.81
High	0.810
Low	0.410
Median	0.565
Average	0.578

There is a significant difference in hauling charges among Minnesota haulers. This may be due to several factors including transportation distance, volume, route, and how dense or spread-out are the dairy farms in the pick-up area, etc. Each hauler may have its very unique hauling situation and cost structure.

Since this is the first time such a survey is ever been conducted, there is no data on hauling cost fluctuations in different years or months that can be used to measure the changes in different time periods. If all other factors stay constant, the cost of fuel – diesel prices – may be the single biggest factor in hauling cost fluctuations.

As a result of this survey, we produced the Minnesota hauling cost data that is quite different from the hauling rate reported by the USDA in May 2003 – 17 cents per hundredweight. As indicated earlier, the USDA data only covers the producer-paid portion, not the total cost. Our survey data reflects that the total cost of hauling milk in Minnesota is 57.8 cents per hundredweight – or 3.4 times higher than what milk producers pay.

Milk hauling subsidies make up the difference between what the producers pay and the actual hauling costs. Based on our survey results, the level of subsidy provided by Minnesota milk buyers is about 40 cents per hundredweight.

In conclusion, milk hauling costs in Minnesota is a complex issue due to many influencing factors and multiple variables, and deserves further study.

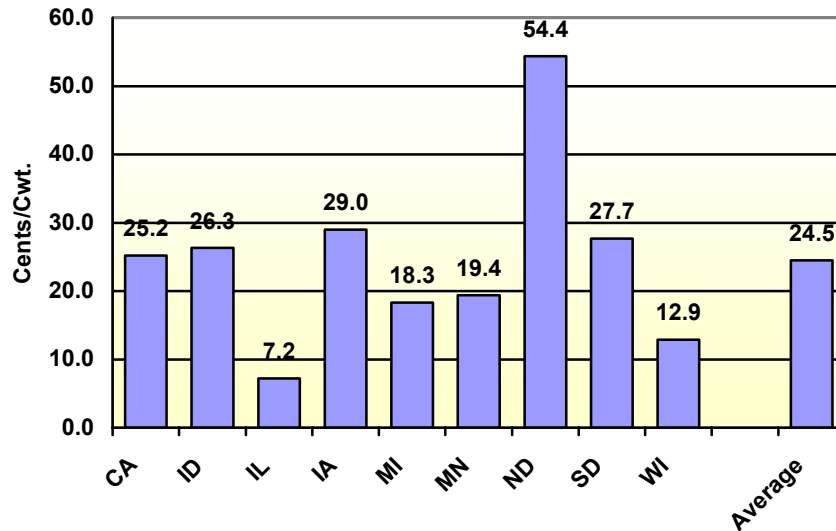
As a reference for the data generated by this survey, the following section reviews the USDA data that provides detailed information on milk hauling charges paid by producers in Minnesota.

USDA data: Producer cost per hundredweight

According to the USDA Federal Milk Market Administrator's Office, milk hauling charges paid by milk producers in Minnesota averaged 19.4 cents per hundredweight in May 2001. This ranked Minnesota the fourth lowest among the milk producing states in the mid-west region, California, and Idaho (Table-1). However, the reported rate is not the full cost of hauling milk in some of these states, especially those with a strong tradition of cooperatives, whose members enjoy hauling subsidies and only pay a fraction of the total hauling cost.

Table 2: Average Hauling Charges Paid by Milk Producers by State (May 2001)

State	Average Hauling Charges (Cents/Cwt.)
CA	25.2
ID	26.3
IL	7.2
IA	29.0
MI	18.3
MN	19.4
ND	54.4
SD	27.7
WI	12.9
Average	24.5



The USDA does not identify the states that provide hauling subsidies; therefore, the information is not available on the true cost of milk hauling for the reported states. To determine the hauling cost for each state, the following factors need to be considered:

- Farm location and distance to the processor: the longer the hauling distance, the higher the transportation cost.
- Dairy herd size and milk volume: the smaller the volume, the higher the hauling rate, especially when the producer pays a “flat rate” – a set rate for milk delivery regardless of the producer volume. Therefore the lower the volume, the higher the cost on a per hundredweight basis.
- Market competition: the hauling rate is strongly influenced by the level of competition of local dairy processing operations. A lack of local processors or handlers results in higher hauling rates.
- Large scale dairy farm operations: the existence of one or more large dairy farms usually helps decrease the local hauling rate.
- Large numbers of dairy farm operations and/or close proximity to multiple competing dairy processors result in a lower hauling rate.

Milk volume is one of the influencing factors on milk hauling charges paid by producers, as shown in Table 3. A higher milk volume or a large dairy herd helps reduce the hauling rate for the producer, especially when a flat rate or fixed rate is in force – regardless of the volume of milk delivered.

Table 3: Milk Hauling Charges Paid by Producers Based on Milk Volume (May 2001)

Volume	MN	Market Average	Difference between MN & Market Average
<i>Pounds</i>	<i>Cents/Cwt.</i>		
Less than 60,000	32.9	25.9	7
60,000-90,000	27.3	21	6.3
90,000-125,000	21.9	17.5	4.4
125,000-190,000	17.6	15.5	2.1
190,000-370,000	13.1	12.9	0.2
370,000-850,000	10.6	12.8	-2.2
850,000-2,000,000	8.7	14.4	-5.7
2,000,000+	4.7	17.7	-13
Average	19.4	17.1	2.3

Historical data shows Minnesota producers overall pay a decreasing rate for milk hauling during the past two decades (Table 4). The hauling rate in May 2003 reached a record-low of 17 cents per hundredweight.

Table 4: Milk Hauling Charges Paid by Producers in May

Year	MN	Market Average	Difference between MN & Market Average
	<i>Cents/Cwt.</i>		
1979	25.6	25.0	0.6
1980	29.0	28.2	0.8
1981	30.5	30.4	0.1
1982	30.9	30.5	0.4
1983	30.6	29.9	0.7
1984	30.4	29.9	0.5
1985	28.8	28.8	0.0
1986	28.1	27.7	0.4
1987	27.2	26.6	0.6
1988	27.6	25.7	1.9
1989	26.0	24.6	1.4
1990	27.5	28.3	-0.8
1991	26.7	26.4	0.3
1992	24.1	26.4	-2.3
1993	22.7	21.4	1.3
1994	22.9	21.1	1.8
1995	21.8	20.1	1.7
1996	19.4	18.5	0.9
1997	18.6	17.7	0.9
1998	18.5	17.6	0.9
1999	21.3	20.8	0.5
2000	20.3*	18.8*	1.5
2001	19.4	17.1	2.3
2002	17.8	16.5*	1.3
2003	17.0	15.7*	1.3
Average	25.1	23.8	1.4

* *Estimates.*

Chart 2: Milk Hauling Charges Paid by MN Producers in May

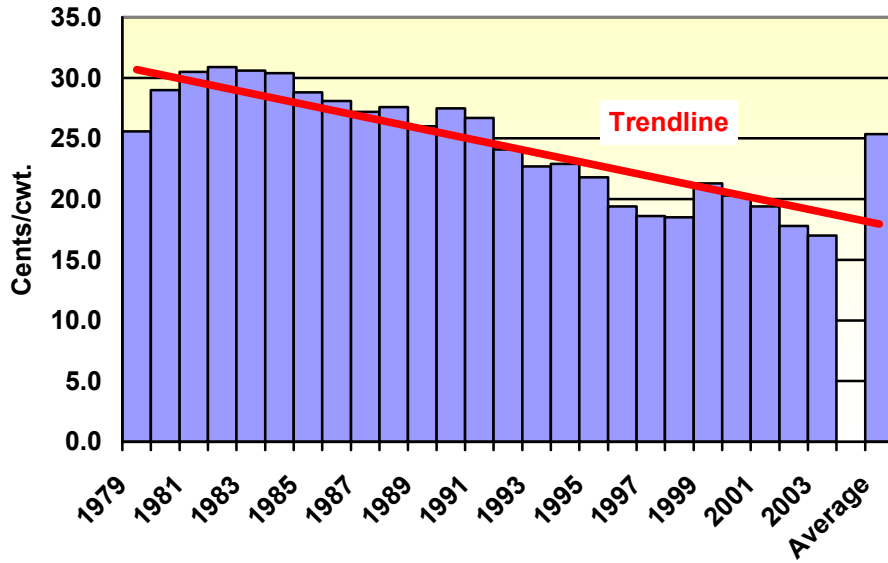
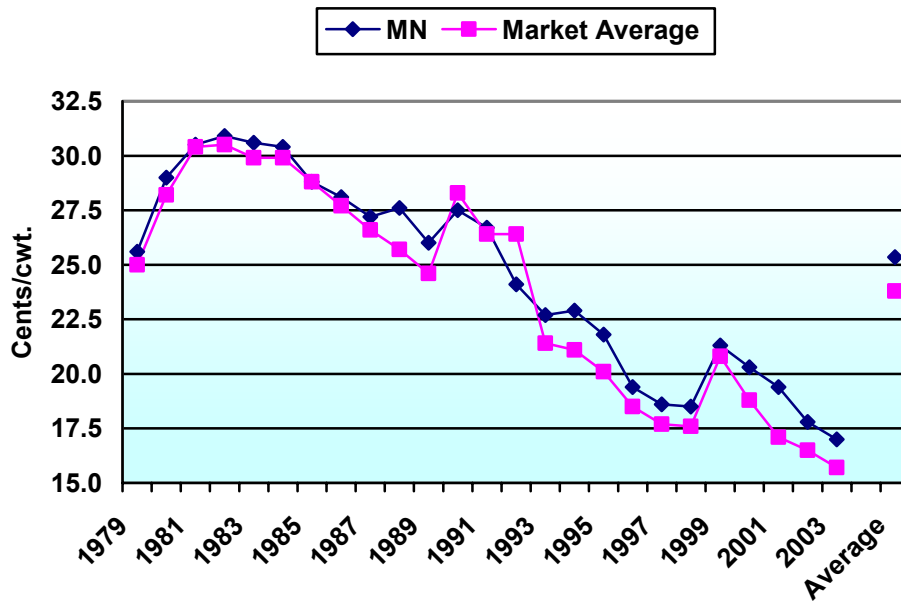


Chart 3: Compare Milk Hauling Charges in MN & Market Average



Minnesota milk producers in different regions pay different prices, ranging from a high of \$1.41/cwt. in Lake of the Woods County to a low of 6.2 cents/cwt in Isanti County (Table 5).

Table 5: Milk Hauling Charges Paid by Producers by County in Minnesota (May 2001)

County	Average Hauling Charges (Cents/Cwt.)	County	Average Hauling Charges (Cents/Cwt.)	County	Average Hauling Charges (Cents/Cwt.)
Aitkin	33.1	Jackson	R	Renville	13.9
Anoka	R	Kanabec	25.6	Rice	25.9
Becker	26.6	Kandiyohi	16.5	Rock	19
Beltrami	35.7	Kittson	83.8	Roseau	74.2
Benton	18.8	Lac Qui Parle	24.8	St. Louis	28.6
Big Stone	22.5	Lake of the Woods	141.3	Scott	16
Blue Earth	15.5	Le Sueur	15.6	Sherburne	20.4
Brown	19	Lincoln	31	Sibley	20.8
Carlton	20.1	Lyon	34	Stearns	14.9
Carver	19.7	McLeod	18.1	Steele	21.4
Cass	25.1	Mahnomen	17.6	Stevens	R
Chippewa	14	Marshall	74.4	Swift	18.8
Chisago	28.3	Martin	15.6	Todd	19.7
Clay	21.1	Meeker	12.2	Traverse	R
Clearwater	R	Mille Lacs	29.4	Wabasha	17.8
Cottonwood	15.6	Morrison	17.2	Wadena	18.2
Crow Wing	22.1	Mower	29.1	Waseca	14.3
Dakota	23.2	Murray	35.2	Washington	30.1
Dodge	12.2	Nicollet	14.2	Watonwan	13.7
Douglas	20.4	Norman	34.5	Wilkin	21.6
Faribault	8.2	Olmsted	19.9	Winona	17.5
Fillmore	17.3	Otter Tail	20.4	Wright	18.1
Freeborn	20.5	Pennington	31.6	Yellow Medicine	R
Goodhue	20.9	Pine	25.2		
Grant	27.3	Pipestone	42.8	MN Average	19.4
Hennepin	18.8	Polk	55.5		
Houston	14.1	Pope	17.2	MN High	141.3
Hubbard	R	Ramsey	R	MN Low	6.2
Isanti	6.2	Red Lake	27	MN Median	20.4
Itasca	63.7	Redwood	18.3		

R: Restricted.



For more information, please contact:

Su Ye
Program Leader, Market Research
Minnesota Department of Agriculture
90 West Plato Boulevard
St. Paul, MN 55107
Tel: 651-296-6384
Fax: 651-296-6890
E-mail: su.ye@state.mn.us