

---

# **PRICES RECEIVED BY FARMERS**

**Minnesota-Wisconsin Manufacturing Grade Milk  
Price Series and Final Two-State Estimates for  
1980 - 1982**



Crop  
Reporting  
Board

**Statistical Reporting  
Service**

U.S. Department  
of Agriculture  
Washington, D.C.  
20250

June 1983  
Pr 1-4 (83)

MINNESOTA-WISCONSIN MANUFACTURING GRADE MILK PRICE SERIES  
AND FINAL TWO-STATE ESTIMATES FOR 1980-82

The Statistical Reporting Service of the U.S. Department of Agriculture publishes each month, estimates of the average price received by farmers and the average milkfat test for milk of manufacturing grade for the preceding month for the Minnesota-Wisconsin area.

These two States consistently produce over half of the manufacturing grade milk marketed in the United States. The estimates relate only to manufacturing grade milk purchased from farmers and do not include Grade A milk diverted to manufacturing uses. Data needed for the preparation of the two-State series are collected by the offices of the Federal-State Agricultural Statisticians in Minnesota and Wisconsin. These data come from regularly scheduled monthly reports submitted by plants receiving manufacturing grade milk. After data are summarized and analyzed by the Federal-State Statisticians, they are forwarded to Washington, D. C. for final review by the Crop Reporting Board and consolidation into the two-State average price and test.

The Minnesota-Wisconsin (M-W) estimate is the average price for all milk of manufacturing grade delivered in bulk tanks and in cans f.o.b. plant or receiving station, before hauling costs are deducted. It includes bulk-tank, quantity, or other premiums paid to producers, but excludes hauling subsidies. The price estimates for a given month are derived from two factors: (1) Estimated average price for the base month, which is the month preceding that to which the M-W price estimate relates, and (2) Estimate of change from the base month to the month to which the M-W price estimate relates.

The base-month price and test are determined from reports from about 175 plants in Wisconsin and 100 in Minnesota. These plants purchase approximately 60 percent of all manufacturing-grade milk sold in the two States. Plants report total pounds of manufacturing-grade milk received from producers, total pounds of milkfat in the milk, and total dollars paid to producers.

The estimated monthly prices and fat tests are weighted together by the total quantity of manufacturing-grade milk purchased from farmers in each State. During the first four months of the year, these weights are based on milk purchases for the same month two years earlier. During the remaining eight months of the year, weights are based on purchases for the corresponding month in the preceding year.

The 275 plants in the base-month sample are well distributed geographically over both States and represent all the major types of processing plants using manufacturing-grade milk. At the end of the year, reports from all manufacturing-grade milk plants in each State indicate close agreement with the monthly prices derived from the 275 plants.

The estimate of change from the base month to the month to which the M-W price estimate relates is based on reports from a sample of 110 plants selected in the two States (about 40 plants in Minnesota and 70 in Wisconsin). These plants' reports are also evaluated in terms of changes from the base month in wholesale prices of manufactured dairy products and historical price and fat-test relationships. Estimated changes in price and fat-test are applied to the State average for the base month to estimate price and fat-test for each State for the month to which the estimate relates.

Plants in Minnesota and Wisconsin are classified into three major product groups according to the proportion of manufacturing-grade milk purchased for cheese, for butter and its by-products, and for varied products. In both Minnesota and Wisconsin, the varied-products group consists mostly of plants which make butter, cheese, or other products in such proportions that they cannot be clearly classified in any one specific group, such as primarily buttermaking plants or cheesemaking plants. In Minnesota during 1982, the cheese group accounted for 64 percent of all manufacturing-grade milk in the State, butter and by-products, 25 percent, and the varied-products group, 11 percent. The proportion of manufacturing-grade milk in Wisconsin purchased in 1982 by each product group was: cheese, 88 percent; butter and by-products, 3 percent; and varied products, 9 percent.

The percentages of milk for each use are used as weights for combining reported price and milkfat test data by groups for the monthly manufacturing-grade average price and milkfat estimates in each State.

Data for the M-W price series are collected from the 110-plant sample, using a questionnaire mailed near the close of each month. This inquiry obtains information for the base month and for the first half of the succeeding month relating to: (1) quantity of manufacturing-grade milk purchased, (2) quantity of fat included, (3) dollars paid, (4) average price at average test, and (5) related information, such as quantities purchased in bulk and in cans, the base price for milk with 3.5 percent fat, and point differentials for varying amounts of fat. Space also is provided on the inquiry for the plant manager's best estimate of the average fat test and milk price for the last half of the month to which the M-W estimate relates.

COMPARISON OF M-W SERIES AND FINAL ESTIMATES - The table on page 4 gives a comparison of the current Minnesota-Wisconsin manufacturing-grade milk price at average test with the final estimate combined for the two States from 1980 through 1982, together with the corresponding comparison for milkfat percentage. The entries in the column headed "Final Two-State Estimate" are weighted averages of the final monthly prices for Minnesota and Wisconsin combined, using complete monthly marketings for each State as weights.

For the 3 years 1980 through 1982, the annual average differences between the current Minnesota-Wisconsin estimates of price per hundredweight (at test) and the final data averaged about .1 cent; the difference in average milkfat test was about .1 percent.

Since the Minnesota-Wisconsin price for use in Federal milk orders is reported on a 3.5 percent milkfat basis, a table is included showing the same comparisons converted to a 3.5 percent basis. The price at average milkfat test is converted to a 3.5 percent basis using a milkfat differential per point (1/10 of one percent) that is calculated by multiplying the average wholesale selling price of Grade A (92 - score) butter at Chicago by 0.120. This is the method specified in Federal milk orders.

PUBLICATION - The monthly M-W report of price per hundredweight at average milkfat test and on a 3.5 percent basis is issued about the 5th of the following month from the Wisconsin office of the Statistical Reporting Service, P.O. Box 9160, Madison, Wisconsin 53715. This report is available on a subscription basis from that office. The price series is also published in the Dairy Market News reports issued by the Dairy Division, Agricultural Marketing Service.

COMPARISON OF MINNESOTA-WISCONSIN MANUFACTURING GRADE MILK PRICE AND MILKFAT TEST WITH THE TWO-STATE AVERAGE OF FINAL ESTIMATES, BY MONTHS, 1980-83

YEAR AND MONTH	MINNESOTA-WISCONSIN SERIES		FINAL TWO-STATE ESTIMATES		DIFFERENCE	
	PRICE PER CWT 1/	MILKFAT TEST	PRICE PER CWT 1/	MILKFAT TEST	PRICE PER CWT 1/	MILKFAT TEST
<hr/>						
	DOLLARS	PERCENT	DOLLARS	PERCENT	DOLLARS	PERCENT
<u>1980</u>						
JAN	11.82	3.79	11.79	3.79	-.03	0
FEB	11.74	3.75	11.77	3.75	+.03	0
MAR	11.95	3.73	11.91	3.75	-.04	+.02
APR	12.03	3.72	11.96	3.72	-.07	0
MAY	11.94	3.67	11.88	3.64	-.06	-.03
JUN	11.83	3.59	11.83	3.59	0	0
JUL	11.81	3.55	11.78	3.54	-.03	-.01
AUG	11.98	3.57	11.99	3.58	+.01	+.01
SEP	12.38	3.68	12.51	3.71	+.13	+.03
OCT	12.97	3.81	12.99	3.82	+.02	+.01
NOV	13.14	3.85	13.15	3.83	+.01	-.02
DEC	13.16	3.81	13.19	3.81	+.03	0
SIMPLE AVERAGE	12.2292	3.7100	12.2292	3.7108	.0000	+.0008
<hr/>						
<u>1981</u>						
JAN	13.12	3.77	13.10	3.75	-.02	-.02
FEB	13.07	3.73	13.04	3.71	-.03	-.02
MAR	13.02	3.70	12.99	3.69	-.03	-.01
APR	12.94	3.67	12.93	3.67	-.01	0
MAY	12.88	3.65	12.86	3.64	-.02	-.01
JUN	12.75	3.59	12.72	3.59	-.03	0
JUL	12.64	3.56	12.58	3.56	-.06	0
AUG	12.61	3.58	12.63	3.58	+.02	0
SEP	12.82	3.70	12.86	3.70	+.04	0
OCT	13.12	3.83	13.17	3.83	+.05	0
NOV	13.11	3.83	13.14	3.82	+.03	-.01
DEC	13.08	3.79	13.08	3.80	0	+.01
SIMPLE AVERAGE	12.9300	3.7000	12.9250	3.6950	-.0050	-.0050
<hr/>						
<u>1982</u>						
JAN	13.03	3.77	13.05	3.79	+.02	+.02
FEB	12.92	3.76	12.92	3.74	0	-.02
MAR	12.86	3.73	12.86	3.73	0	0
APR	12.80	3.70	12.82	3.71	+.02	+.01
MAY	12.73	3.67	12.70	3.66	-.03	-.01
JUN	12.60	3.60	12.60	3.60	0	0
JUL	12.54	3.57	12.55	3.57	+.01	0
AUG	12.58	3.58	12.56	3.57	-.02	-.01
SEP	12.80	3.69	12.89	3.73	+.09	+.04
OCT	13.16	3.84	13.15	3.83	-.01	-.01
NOV	13.18	3.85	13.22	3.84	+.04	-.01
DEC	13.17	3.81	13.16	3.81	-.01	0
SIMPLE AVERAGE	12.8642	3.7142	12.8733	3.7150	+.0091	+.0008
<hr/>						
36-MONTH SIMPLE AVERAGE	12.6745	3.7081	12.6758	3.7069	+.0013	-.0012

1/ AVERAGE PRICE FOR MILK OF AVERAGE MILKFAT TEST.

COMPARISON OF MINNESOTA-WISCONSIN MANUFACTURING GRADE MILK PRICE PER CWT.  
WITH FINAL TWO-STATE ESTIMATED PRICE, FOR MILK OF 3.5 PERCENT MILKFAT CONTENT,  
BY MONTHS, 1980-83 1/

YEAR AND MONTH	MINNESOTA-WISCONSIN SERIES	FINAL TWO-STATE ESTIMATE	DIFFERENCE
DOLLARS			
<u>1980</u>			
JAN	11.37	11.34	-.03
FEB	11.35	11.38	+.03
MAR	11.59	11.52	-.07
APR	11.68	11.61	-.07
MAY	11.66	11.65	-.01
JUN	11.68	11.68	0
JUL	11.73	11.71	-.02
AUG	11.86	11.85	-.01
SEP	12.07	12.14	+.07
OCT	12.42	12.43	+.01
NOV	12.52	12.57	+.05
DEC	12.61	12.64	+.03
SIMPLE AVERAGE	11.8783	11.8767	-.0016
<u>1981</u>			
JAN	12.64	12.66	+.02
FEB	12.66	12.67	+.01
MAR	12.67	12.65	-.02
APR	12.64	12.63	-.01
MAY	12.61	12.61	0
JUN	12.59	12.56	-.03
JUL	12.53	12.47	-.06
AUG	12.47	12.49	+.02
SEP	12.46	12.50	+.04
OCT	12.52	12.57	+.05
NOV	12.52	12.57	+.05
DEC	12.56	12.55	-.01
SIMPLE AVERAGE	12.5725	12.5775	+.0050
<u>1982</u>			
JAN	12.55	12.54	-.01
FEB	12.46	12.50	+.04
MAR	12.45	12.45	0
APR	12.45	12.45	0
MAY	12.43	12.42	-.01
JUN	12.42	12.42	0
JUL	12.42	12.43	+.01
AUG	12.44	12.44	0
SEP	12.46	12.48	+.02
OCT	12.56	12.57	+.01
NOV	12.56	12.61	+.05
DEC	12.62	12.61	-.01
SIMPLE AVERAGE	12.4850	12.4933	+.0083
36-MONTH SIMPLE AVERAGE	12.3119	12.3158	+.0039

1/ PRICES HAVE BEEN CONVERTED FROM THE AVERAGE MILKFAT TEST TO 3.5 PERCENT USING THE MILKFAT DIFFERENTIAL SPECIFIED IN FEDERAL ORDERS (CHICAGO GRADE A BUTTER PRICE X 0.120).

MANUFACTURING GRADE MILK: WEIGHTS USED TO CALCULATE  
THE MINNESOTA-WISCONSIN MILK PRICE SERIES, BY MONTHS, 1982-84 1/

MONTH	1982		1983		1984	
	MINN	WIS	MINN	WIS	MINN	WIS
	PERCENT					
JAN	40.5	59.5	42.4	57.6	41.8	58.2
FEB	41.1	58.9	42.9	57.1	41.6	58.4
MAR	40.9	59.1	42.7	57.3	41.3	58.7
APR	40.4	59.6	41.7	58.3	40.1	59.9
MAY	40.8	59.2	39.1	60.9		
JUN	39.7	60.3	38.3	61.7		
JUL	38.7	61.3	37.5	62.5		
AUG	37.5	62.5	36.1	63.9		
SEP	37.6	62.4	36.5	63.5		
OCT	38.8	61.2	37.5	62.5		
NOV	40.4	59.6	39.4	60.6		
DEC	41.7	58.3	40.5	59.5		

1/ WEIGHTS SHOWN FOR JUN THROUGH APR ARE BASED UPON PURCHASES OF MANUFACTURING GRADE MILK TWO YEARS EARLIER WHILE WEIGHTS FOR MAY THROUGH DEC ARE BASED UPON PURCHASES FROM A YEAR EARLIER. "FINAL TWO-STATE" ESTIMATES ARE WEIGHTED BY COMPLETE MONTHLY MARKETINGS FOR THE RESPECTIVE MONTH.

**ORDER FORM  
CROP REPORTING BOARD REPORTS**

Report Title	Subscription Fee		Report Title	Subscription Fee	
	Domestic	Foreign		Domestic	Foreign
<input type="checkbox"/> Agr'l Prices (12 issues)	\$27.00	\$33.75	<input type="checkbox"/> Grain Stocks (5 issues)	\$9.50	\$11.90
<input type="checkbox"/> Agr'l Price Summaries (2 issues)	9.00	11.25	Grain Stocks (4)	--	--
Agr'l Price Annual	--	--	Soybean Stocks (1)	--	--
Farm Prod. Expenditures	--	--	<input type="checkbox"/> Hogs and Pigs (4 issues)	7.50	9.40
<input type="checkbox"/> Catfish (12 issues)	16.00	20.00	<input type="checkbox"/> Livestock Slaughter (13 issues)	20.00	25.00
<input type="checkbox"/> Cattle (14 issues)	19.00	23.75	Monthly	--	--
Cattle on Feed (12)	--	--	Annual	--	--
Cattle (2)	--	--	<input type="checkbox"/> Milk Production (13 issues)	18.00	22.50
<input type="checkbox"/> Celery (12 issues)	16.00	20.00	Monthly	--	--
<input type="checkbox"/> Cold Storage (13 issues)	23.00	28.75	Milk: Production, Disposition, and Income	--	--
Monthly	--	--	<input type="checkbox"/> Non-Citrus Fruits (2 issues)	5.50	6.90
Annual	--	--	Mid-year supplement	--	--
<input type="checkbox"/> Crop Production (16 issues)	29.00	36.25	Annual	--	--
Monthly	--	--	<input type="checkbox"/> Potatoes & Sweetpotatoes (7 issues)	11.00	13.75
Annual Summary	--	--	Potato Stocks (6)	--	--
Acreage	--	--	Potatoes & Sweetpotatoes (1)	--	--
Prospective Plantings	--	--	<input type="checkbox"/> Poultry Slaughter (12 issues)	18.00	22.50
Small Grains	--	--	<input type="checkbox"/> Rice Stocks (4 issues)	7.00	8.75
<input type="checkbox"/> Dairy Products (13 issues)	20.00	25.00	<input type="checkbox"/> Vegetables (13 issues)	17.00	21.25
Monthly	--	--	Seasonal	--	--
Annual	--	--	Annual	--	--
<input type="checkbox"/> Egg Products (12 issues)	16.00	20.00	Mid-year Report	--	--
<input type="checkbox"/> Eggs, Chickens & Turkeys (16 issues)	23.00	28.75			
Monthly	--	--			
Annual	--	--			
Poultry: Production, Disposition, and Income	--	--			
Hatchery Prod. Annual	--	--			
Turkeys	--	--			
Poultry: Production, Disposition and Value	--	--			
Hatchery Prod. Annual	--	--			
Turkeys	--	--			

**HOW TO ORDER.**

**SUBSCRIPTIONS:** Check the title of each subscription group you wish to order. Calculate the total charges and enter below with complete name and address information. If address is outside United States, use "Foreign" price. Allow 6 weeks for processing.

Write check or money order payable to: Superintendent of Documents.

Enclosed is \$  check,  
 money order, or charge to my prepaid  
 Superintendent of Documents Deposit  
 Account No.



**Credit Card Orders Only**

Total charges \$  Fill in the boxes below.

Credit Card No.

Expiration Date  
 Month/Year

Order No.

Please send me the subscription(s) I have indicated above.

Company or personal name

Additional address/attention line

Street address

City  State  ZIP Code

(or Country)

PLEASE PRINT OR TYPE

FOR OFFICE USE ONLY	
QUANTITY	CHARGES
<input type="text"/>	Publications
<input type="text"/>	Subscriptions
<input type="text"/>	Special shipping charges
<input type="text"/>	International handling
<input type="text"/>	Special charges
<input type="text"/>	OPNR
<input type="text"/>	UPNS
<input type="text"/>	Balance Due
<input type="text"/>	Discount
<input type="text"/>	Refund

Mail this entire page to: Superintendent of Documents  
 U.S. Government Printing Office  
 Washington, D.C. 20402

**UNITED STATES DEPARTMENT OF AGRICULTURE  
WASHINGTON, D.C. 20250**

**OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300**

To stop mailing  or to change your  
address  send this sheet with label  
*intact, showing new address, to Crop  
Reporting Board Publications, SRS, U.S.  
Dept. of Agriculture, Rm 5829 South  
Building, 14th & Independence Ave. S.W.,  
Wash., D.C. 20250.*

**POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF  
AGRICULTURE  
AGR 101  
FIRST CLASS**

