

**Testimony of Paul G. Christ
On Behalf of the Maine Dairy Industry Association
Federal Milk Market Order Hearing
Docket No. AO-14-A77, et. al.
July 9 – 13, 2007 Pittsburg, PA**

**IN SUPPORT OF PROPOSAL 18 – TO ESTABLISH A COMPETITIVE PAY PRICE
FOR GRADE A MILK TO BE USED AS A FACTOR IN COMPONENT PRICING**

My name is Paul G. Christ, and I live at 245 Indian Trail, So., Afton, MN, 55001. I am a retired vice president of Land O'Lakes, Inc. In my 26 years experience at Land O'Lakes, I was responsible for the marketing of Grade A milk for the cooperative. As part of that responsibility, I participated in the development of many proposals to modify Federal milk marketing orders, and participated in the appropriate hearings to secure their adoption. Sometimes I was successful, and sometimes I was not.

Prior to working for Land O'Lakes, I was a supervisory agricultural economist is what is now the Dairy Programs activity in the Agricultural Marketing Service.

Since retiring from Land O'Lakes in 2000, I have occasionally participated in Federal order amendment hearings as an independent consultant for other firms.

I appear here to represent the Maine Dairy Industry Association in their support of Proposal No. 18. Proposal No. 18 would incorporate a factor (in Class III milk pricing) that would account for any monthly spread between component price calculations for milk and a competitive pay price for equivalent Grade A milk. This testimony puts practical substance to that idea by outlining the development and use of a competitive pay price series to replace the current product formula price for Class III milk.

The "adjustment factor" suggested here would be the adjustment of the other solids price in the Class III price formula, so that the sum of the component values equals the "basic formula price", or average competitive pay price.

A variety of competitive pay price mechanisms for pricing Class III milk have been considered in the past, including the Department's 1994-1996 simulated analysis of a competitive pay price referenced in MDIA's proposal. The Department confronted several difficulties with its simulation, including that it (1) could not eliminate circularity,

meaning that the influence of regulated minimum prices could not be eliminated, and (2) was not necessarily based on vigorous competition among buyers of milk. It did, however, attempt to include the influence of pay prices in California.

What I offer here is a mechanism that builds and updates on this past analysis, and that discovers the market driven, competitive value of Grade A milk for manufacturing.

It is well known, and understood, that the market for milk is not the same as the markets for butter, cheese, nonfat dry milk and whey. Prices in each of these markets respond to a unique set of supply and demand factors, and they do not move in harmony. Since the Federal milk order system is focused on finding and enforcing effective prices for producer milk, it is likely that attempting to find a competitive price for milk would be more efficient and precise than attempting to discover accurate product prices, and discern appropriate yields and make allowances.

With a competitive pay price system, the participants in the market decide what margins are appropriate by choosing a particular price to pay for milk. These purchasers are volunteers who pay what they choose to pay. As volunteers, they accept the consequences of competition in both milk and product markets, whether it comes from local rivals, or more distant rivals in Idaho, New Mexico, California or other areas. If the competitive pay prices chosen by these milk purchasers render their business profitable or unprofitable is irrelevant, so long as they independently choose to pay such prices.

Here is an outline of how a competitive pay price for raw Grade A milk would be developed and used:

1. Determine the geographic area in which there is significant competition for raw Grade A milk.
2. Exempt handlers who purchase milk in this competitive area from minimum payments to producers in the area.
3. Handlers would not be exempt from minimum payments to producers in other areas. They would pay those producers in the same manner as today.
4. In effect, regulated handlers would have two producer payrolls, one for producers in the competitive price zone, and another for producers outside the competitive price zone.
5. Producers in the competitive price zone would continue to benefit from the PPD. We propose that a 12-month rolling average PPD be calculated each month and

- paid to handlers purchasing milk in the competitive price zone. Payments to producers would then be based on the competitive value of milk for manufacturing, plus the 12-month rolling average PPD.
6. Payments to producers in the competitive price zone would differ from payments to producers outside the zone because the 12-month rolling average PPD would differ from the current month PPD paid to producers outside the competitive price zone.
 7. The market administrators would collect actual payment data from handlers buying milk in the competitive zone for the preceding month, and estimates of payments for the current month. By deducting the value of the respective 12-month rolling average PPDs, they would determine the average expected manufacturing value of milk purchased in the competitive price zone. This average manufacturing value would be the basic formula price.
 8. The basic formula price would become the Class III price for milk transactions between handlers, and for determining minimum payments to producers located outside the competitive price zone.
 9. The Class III price would still be based on components, except the other solids price would be based on the residual value of the basic formula price after the values of butterfat and protein were deducted.
 10. A new fund would be set up to receive the value of the current month PPD that would otherwise have gone to producers in the competitive price zone. Payments of the 12-month rolling average PPD would be paid out of the fund to enable full Federal order values to be paid to producers in the competitive price zone.
 11. Most other features of Federal milk orders would remain the same.

Attached to my statement as appendix B are proposed, necessary changes to the statutory language.

Here are some questions and answers that elaborate further on the proposal:

Does competition exist for Grade A milk? Finding a competitive price for Grade A depends on the existence of significant, substantial competition for such milk. The question arises as to how much competition is necessary to render a competitive price.

There are two approaches to measuring the degree of competition in a market. The first is the “concentration ratio” which reports the market share represented by the four (or eight, or 20) largest firms in the market, and the second is the Herfindahl index.¹

The concentration ratio approach has the defect of not weighting the relative competitive strengths of the individual firms included in the ratio. For example, one market with a four-firm concentration ratio of 80 percent could have four equal sized competitors. A second market with the same four-firm concentration ratio of 80 percent could have one large firm represent 65 percent of the market, and three small firms, each with five percent of the market. Clearly, the first market is more competitive than the second market.

This difficulty is largely resolved by the Herfindahl index. This index is calculated by measuring the market share of each firm in the market, squaring it, and then adding up the squared market shares. Here is an example:

<u>Firm</u>	<u>Market Share</u>	<u>Market Share Squared</u>
1	.50	.2500
2	.25	.0625
3	.15	.0225
4	.10	<u>.0100</u>
Herfindahl Index:		.3450

A Herfindahl index of .3450 indicates that this market is more competitive than another market with an index of more than .3450, and less competitive than another market with an index of less than .3450.

Whether one uses a concentration ratio or a Herfindahl index to measure competition, it must be related to the relevant market. It can be argued that the market for raw Grade A milk is national in scope. If so, there is plenty of competition, as there

¹ The index is named for Orris Herfindahl, who developed it while writing a Ph.D dissertation at Columbia University on concentration in the steel industry. The index is sometimes referred to as the Herfindahl-Hirschman index and is often abbreviated HHI. (Footnote taken from Besanko, et. al., Economics of Strategy, Fourth Edition, John Wiley & Sons, 2007, p. 221).

are hundreds of firms buying milk, resulting in a low concentration ratio and a low Herfindahl index.

I would argue that competition for buying Grade A milk is more local in nature. The relevant market would include the feasible procurement area of an individual handler's plant, maybe within a radius of 50 to 100 miles. However, these procurement areas partially or fully overlap those of other handlers, creating a network of competition that extends across the country. Also there are no data aggregated for any one or combination of procurement areas. Thus, it is difficult to match the number of competitors to a specifically defined market, or to measure the intensity of their competitive behavior.

What I propose is that we measure competition at the county level, which is smaller than the relevant market for raw Grade A milk. I requested data from the Upper Midwest market administrator indicating the number of competitors by county, and the Herfindahl index by county. The data are presented in Appendix A.

Table 1 lists the counties within the Upper Midwest marketing area for which there were three or more milk buyers filing reports to the Federal order #30 Market Administrator.

These data do not include the number of additional milk buyers reporting to other Federal order markets on milk purchased in these same counties. So, the data in this table understate, rather than overstate, the number of competitors in each county.

I did not ask for these same data from other Market Administrators, or from the national Dairy Programs office. The last time the national office compiled comprehensive data on sources of milk by state and county was in 2003, making some of the information out-of-date. Also, if significant competition could not be shown for the Upper Midwest market, it was unlikely that it could be shown anywhere in the Federal order system.

Tables 2 and 3 show the same information about counties with four or more, and five or more, milk buyers, respectively. With more milk buyers, more competition is implied. Even with five milk buyers there is a significant territory in which this much competition occurs.

Tables 4, 5 and 6 show the same information about counties with a Herfindahl index of 0.50 or less (equivalent to at least two, equal-sized competitors), 0.33 or less (equivalent to at least three, equal-sized competitors) and 0.25 or less (equivalent to at least four, equal-sized competitors). Again, by all three of these measures, there is a significant territory in which this much competition occurs.

Figures 1 through 6 are maps illustrating the data from Tables 1 through 6, respectively.

The significance of Appendix A is that it shows that there are a lot of counties in which a lot of competition for raw Grade A milk exists. That is a necessary precondition for the development of a competitive pay price for milk.

Here is what we propose for the territory in which a competitive pay price for Grade A milk is derived: (1) Combine the sources of milk data for all Federal milk orders and identify the counties for which the buyers from all markets represent a Herfindahl index of 0.33 or more. This means that, at a minimum, there are three equal-sized milk buyers. In virtually all cases there will be four or more buyers in such counties. (2) Aggregate these counties into contiguous groups of 10 or more counties. A cluster would include all competitive counties that are contiguous. A cluster of competitive counties is likely to be more competitive than an individual, isolated county.

There is likely to be several clusters of competitive counties distributed across the Federal order system and across a number of states. (3) Define the counties within all of these clusters as the “Competitive Price Zone”. Minimum producer payments would not be enforced within this zone. Thus, the prices paid within this zone would be based on competition among milk buyers, and not on regulated minimum prices.

How can payments to producers be deregulated? Under our proposal minimum payments to producers in the “competitive price zone” would not be enforced. However, there are two components of the payments to producers under Federal milk orders. The first is the manufacturing value of the milk (represented by the value of Class III components), and the second is the Producer Price Differential (PPD), which represents the Class I, Class II and Class IV differentials, plus all other adjustments in the pricing and pooling mechanism. We propose to deregulate only the manufacturing milk value

component of the total payment to producers. There would still be a regulated minimum payment to producers of a PPD, but not the same PPD as is paid to producers who are not in the competitive price zone.

In order to make timely use of the competitive pay price, it must be available before reports of receipts and utilization are filed, and before the pool is calculated. Therefore, the PPD for the current month will not be known before the competitive pay price is known. So, the PPD paid to producers in the competitive price zone must be determined in another manner.

We propose that the PPD paid to producers in the competitive price zone be the 12-month rolling average of PPDs for the market in which the handler is regulated. This rolling average PPD would be paid by the market administrator to each handler buying milk in the competitive price zone as soon after the pool is settled, so the money could be used to pay producers in the current month. For example, when the June 2007 pool was settled, and the June PPD was determined, the market administrator would calculate a new, 12-month rolling average PPD. The MA would then pay this amount to each handler buying milk in the competitive price zone for the estimated volume of milk that the handler will purchase in the month of July in the competitive price zone.

The timing of that payment would be coordinated with the expected date of payments to producers in the competitive price zone. For example, we propose that on or before the fourth of the month, say July, handlers buying milk in the competitive price zone report to the market administrator how much they paid for the first half of June, and expect to pay for the second half of June. This implies that payments for the first half of June would be made on or before the fourth of the following month. Thus the market administrator should pay the 12-month rolling average PPD to competitive price zone handlers by about the first of the month. Whether this payment should be in one installment at the time of the first half payment to producers, or in two installments at the times of each payment to producers is an open question. It is probably best as two installments.

Handlers who buy milk in the competitive price zone have the ability to pay both the manufacturing value of producer milk, as determined by them, and the 12-month moving average PPD. Over the period of a year, producers in the competitive price zone

will receive as much as producers outside the zone because the average competitive price paid to them will equal the Class III price paid to regular pool producers. However, there will be differences in individual months. In particular, the PPD will vary more for regular pool producers than for competitive price zone producers.

How will a handler decide the manufacturing value of milk purchased? A handler buying milk in the competitive price zone would make decisions in the same manner as a participant in any unregulated, relatively competitive market. The handler evaluate the forces of supply and demand, the degree of competition in both the buying and selling markets, including that from California, and set a price expected to maximize profits in the long run. The handler will consider the value of alternative product mixes, manufacturing costs, plant capacity utilization, product prices, trends in milk production and consumer demand, transportation costs, and other factors affecting the ability to make a profit. Many of these are subjective factors peculiar to the individual handler, and cannot be comprehended by a product formula like the ones currently in use. The price the handler decides to pay will represent the best estimate of the value of milk, to the handler, for manufacturing.

How will payments and reports be timed to make the information useful? We propose that payments and reports be timed similar to the timing of the old Minnesota-Wisconsin Grade B price survey.

First, all handlers, whether they buy milk in the competitive price zone or not must report their producer payroll to the market administrator by the 22nd of the following month. We would require a handler to report separately for producers in the competitive price zone and producers outside the zone. This may not be necessary because the market administrator could sort out producers in the two zones by their mailing address or physical location.

Second, the market administrator would aggregate all the payments to producers in the competitive price zone and deduct the value of the 12-month rolling average PPD. The residual would be the manufacturing value of milk in the competitive price zone. An agent of the Secretary (probably one of the market administrators) would then accumulate

this price and volume data from all markets, and calculate an average competitive manufacturing milk price. This would be the “base month price”.

Third, each handler buying milk in the competitive price zone would be required to report on or before the fourth of the following month the volume of milk and the total payments for it for the first half of the month, and the amount expected to be paid for the second half of the month. The compilation of this data, after deducting the value of the 12-month rolling average PPD, would be compared to the base month price. The difference would be added to the base month price, resulting in the Basic Formula Price (BFP).

This timing would conform to the needs of pricing producer milk outside of the competitive price zone.

How does California factor into this plan? California is not part of this plan because the Secretary of Agriculture cannot compel California to conform to it. If California would conform to it, and identify the competitive areas of the state, it would enrich the pool of data on which the basic formula price would be based.

In any event, handlers buying milk in the competitive price zone would have to consider the competitive effect of California competitors in both milk markets and dairy product markets when they decide how much to pay producers in the competitive price zone.

Will this proposal result in higher or lower prices to producers? We do not have a definitive answer to this question, but I suspect that the competitive basic formula price will be higher than the current Class III price. The reason is that most of the competitive price zone is likely to be in the upper Midwest. In this area, vigorous competition has for many years resulted in pay prices to producers (mailbox prices) well above the uniform prices rendered by Federal milk orders. This same vigorous competition is likely to show up in the competitive prices handlers pay for milk in the competitive price zone.

However, if competitive areas can be found in the Northeast, the Northwest or Southwest, pay prices in those areas could dilute the effect of the Midwest. Of particular value would be a mechanism for discovering competitive pay prices for California.

This completes my statement.

Appendix A - Table 1
Upper Midwest Order Marketing Area
List of Counties with Three or More Milk Buyers ^{1/}
December 2006

<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>
Iowa	Howard	Minnesota	Goodhue	Minnesota	Stearns
Iowa	Mitchell	Minnesota	Grant	Minnesota	Steele
Iowa	Winneshiek	Minnesota	Hennepin	Minnesota	Stevens
		Minnesota	Houston	Minnesota	Swift
Illinois	Boone	Minnesota	Isanti	Minnesota	Todd
Illinois	Carroll	Minnesota	Kanabec	Minnesota	Wabasha
Illinois	De Kalb	Minnesota	Kandiyohi	Minnesota	Wadena
Illinois	Jo Daviess	Minnesota	Lac qui Parle	Minnesota	Waseca
Illinois	Kane	Minnesota	Le Sueur	Minnesota	Washington
Illinois	Mc Henry	Minnesota	Lyon	Minnesota	Watonwan
Illinois	Ogle	Minnesota	Mahnomen	Minnesota	Winona
Illinois	Stephenson	Minnesota	Marshall	Minnesota	Wright
Illinois	Winnebago	Minnesota	Martin	Minnesota	Yellow Medicine
		Minnesota	Mc Leod		
Michigan	Menominee	Minnesota	Meeker	N. Dakota	Barnes
		Minnesota	Mille Lacs	N. Dakota	Dickey
Minnesota	Anoka	Minnesota	Morrison	N. Dakota	La Moure
Minnesota	Becker	Minnesota	Mower		
Minnesota	Beltrami	Minnesota	Murray	S. Dakota	Grant
Minnesota	Benton	Minnesota	Nicollet	S. Dakota	Marshall
Minnesota	Big Stone	Minnesota	Norman	S. Dakota	Roberts
Minnesota	Blue Earth	Minnesota	Olmsted		
Minnesota	Brown	Minnesota	Otter Tail	Wisconsin	Adams
Minnesota	Carver	Minnesota	Pennington	Wisconsin	Ashland
Minnesota	Cass	Minnesota	Pine	Wisconsin	Barron
Minnesota	Chippewa	Minnesota	Polk	Wisconsin	Bayfield
Minnesota	Chisago	Minnesota	Pope	Wisconsin	Brown
Minnesota	Clay	Minnesota	Red Lake	Wisconsin	Buffalo
Minnesota	Crow Wing	Minnesota	Redwood	Wisconsin	Burnett
Minnesota	Dakota	Minnesota	Renville	Wisconsin	Calumet
Minnesota	Dodge	Minnesota	Rice	Wisconsin	Chippewa
Minnesota	Douglas	Minnesota	Roseau	Wisconsin	Clark
Minnesota	Faribault	Minnesota	Scott	Wisconsin	Columbia
Minnesota	Fillmore	Minnesota	Sherburne	Wisconsin	Dane
Minnesota	Freeborn	Minnesota	Sibley	Wisconsin	Dodge

Table 1 (continued)
Upper Midwest Order Marketing Area
List of Counties with Three or More Milk Buyers ^{1/}
December 2006

<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>
Wisconsin	Door	Wisconsin	Lincoln	Wisconsin	Rusk
Wisconsin	Douglas	Wisconsin	Manitowoc	Wisconsin	Sauk
Wisconsin	Dunn	Wisconsin	Marathon	Wisconsin	Sawyer
Wisconsin	Eau Claire	Wisconsin	Marinette	Wisconsin	Shawano
Wisconsin	Fond du Lac	Wisconsin	Marquette	Wisconsin	Sheboygan
Wisconsin	Forest	Wisconsin	Monroe	Wisconsin	St. Croix
Wisconsin	Green	Wisconsin	Oconto	Wisconsin	Taylor
Wisconsin	Green Lake	Wisconsin	Outagamie	Wisconsin	Trempealeau
Wisconsin	Iowa	Wisconsin	Ozaukee	Wisconsin	Vernon
Wisconsin	Jackson	Wisconsin	Pepin	Wisconsin	Walworth
Wisconsin	Jefferson	Wisconsin	Pierce	Wisconsin	Washburn
Wisconsin	Juneau	Wisconsin	Polk	Wisconsin	Washington
Wisconsin	Kenosha	Wisconsin	Portage	Wisconsin	Waukesha
Wisconsin	Kewaunee	Wisconsin	Price	Wisconsin	Waupaca
Wisconsin	La Crosse	Wisconsin	Racine	Wisconsin	Waushara
Wisconsin	Lafayette	Wisconsin	Richland	Wisconsin	Winnebago
Wisconsin	Langlade	Wisconsin	Rock	Wisconsin	Wood

^{1/} Milk buyers are cooperatives and proprietary organizations that submit producer payrolls to Federal Order 30. Data are only listed for counties within the Upper Midwest Marketing Area.

<p>Prepared by: Market Administrator's Office Minneapolis, Minnesota June 2007</p> <p>Requested by: Paul G. Christ</p>
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Table 2
Upper Midwest Order Marketing Area
List of Counties with Four or More Milk Buyers ^{1/}
December 2006

<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>
Illinois	Boone	Minnesota	Mc Leod	S. Dakota	Roberts
Illinois	De Kalb	Minnesota	Mahnomen		
Illinois	Jo Daviess	Minnesota	Martin	Wisconsin	Adams
Illinois	Kane	Minnesota	Meeker	Wisconsin	Ashland
Illinois	Mc Henry	Minnesota	Mille Lacs	Wisconsin	Barron
Illinois	Ogle	Minnesota	Morrison	Wisconsin	Bayfield
Illinois	Stephenson	Minnesota	Mower	Wisconsin	Brown
Illinois	Winnebago	Minnesota	Murray	Wisconsin	Buffalo
		Minnesota	Nicollet	Wisconsin	Burnett
Iowa	Mitchell	Minnesota	Norman	Wisconsin	Calumet
Iowa	Winneshiek	Minnesota	Olmsted	Wisconsin	Chippewa
		Minnesota	Otter Tail	Wisconsin	Clark
Minnesota	Becker	Minnesota	Pine	Wisconsin	Columbia
Minnesota	Benton	Minnesota	Polk	Wisconsin	Dane
Minnesota	Brown	Minnesota	Pope	Wisconsin	Dodge
Minnesota	Carver	Minnesota	Red Lake	Wisconsin	Door
Minnesota	Cass	Minnesota	Renville	Wisconsin	Douglas
Minnesota	Chisago	Minnesota	Rice	Wisconsin	Dunn
Minnesota	Clay	Minnesota	Scott	Wisconsin	Eau Claire
Minnesota	Dakota	Minnesota	Sherburne	Wisconsin	Fond du Lac
Minnesota	Dodge	Minnesota	Sibley	Wisconsin	Forest
Minnesota	Douglas	Minnesota	Stearns	Wisconsin	Green
Minnesota	Faribault	Minnesota	Steele	Wisconsin	Green Lake
Minnesota	Fillmore	Minnesota	Stevens	Wisconsin	Iowa
Minnesota	Freeborn	Minnesota	Swift	Wisconsin	Jackson
Minnesota	Goodhue	Minnesota	Todd	Wisconsin	Jefferson
Minnesota	Hennepin	Minnesota	Wabasha	Wisconsin	Juneau
Minnesota	Houston	Minnesota	Wadena	Wisconsin	Kenosha
Minnesota	Isanti	Minnesota	Waseca	Wisconsin	Kewaunee
Minnesota	Kanabec	Minnesota	Watonwan	Wisconsin	La Crosse
Minnesota	Kandiyohi	Minnesota	Winona	Wisconsin	Lafayette
Minnesota	Le Sueur	Minnesota	Wright	Wisconsin	Langlade
Minnesota	Lyon	Minnesota	Yellow Medicine	Wisconsin	Lincoln

Table 2 (continued)
Upper Midwest Order Marketing Area
List of Counties with Four or More Milk Buyers ^{1/}
December 2006

<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>
Wisconsin	Manitowoc	Wisconsin	Portage	Wisconsin	Taylor
Wisconsin	Marathon	Wisconsin	Price	Wisconsin	Trempealeau
Wisconsin	Marinette	Wisconsin	Racine	Wisconsin	Vernon
Wisconsin	Marquette	Wisconsin	Richland	Wisconsin	Walworth
Wisconsin	Monroe	Wisconsin	Rock	Wisconsin	Washburn
Wisconsin	Oconto	Wisconsin	Rusk	Wisconsin	Washington
Wisconsin	Outagamie	Wisconsin	St. Croix	Wisconsin	Waukesha
Wisconsin	Ozaukee	Wisconsin	Sauk	Wisconsin	Waupaca
Wisconsin	Pepin	Wisconsin	Sawyer	Wisconsin	Waushara
Wisconsin	Pierce	Wisconsin	Shawano	Wisconsin	Winnebago
Wisconsin	Polk	Wisconsin	Sheboygan	Wisconsin	Wood

^{1/} Milk buyers are cooperatives and proprietary organizations that submit producer payrolls to Federal Order 30. Data are only listed for counties within the Upper Midwest Marketing Area.

<p>Prepared by: Market Administrator's Office Minneapolis, Minnesota June 2007</p> <p>Requested by: Paul G. Christ</p>
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Table 3
Upper Midwest Order Marketing Area
List of Counties with Five or More Milk Buyers ^{1/}
December 2006

<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>
Illinois	Boone	Minnesota	Norman	Wisconsin	Fond Du Lac
Illinois	Jo Daviess	Minnesota	Olmsted	Wisconsin	Green
Illinois	Kane	Minnesota	Otter Tail	Wisconsin	Green Lake
Illinois	Mc Henry	Minnesota	Pine	Wisconsin	Iowa
Illinois	Ogle	Minnesota	Polk	Wisconsin	Jackson
Illinois	Stephenson	Minnesota	Pope	Wisconsin	Jefferson
Illinois	Winnebago	Minnesota	Rice	Wisconsin	Juneau
		Minnesota	Scott	Wisconsin	Kewaunee
Iowa	Mitchell	Minnesota	Sherburne	Wisconsin	La Crosse
Iowa	Winneshiek	Minnesota	Sibley	Wisconsin	Lafayette
		Minnesota	Stearns	Wisconsin	Langlade
Minnesota	Becker	Minnesota	Steele	Wisconsin	Lincoln
Minnesota	Benton	Minnesota	Todd	Wisconsin	Manitowoc
Minnesota	Brown	Minnesota	Wabasha	Wisconsin	Marathon
Minnesota	Carver	Minnesota	Wadena	Wisconsin	Marinette
Minnesota	Chisago	Minnesota	Winona	Wisconsin	Marquette
Minnesota	Clay	Minnesota	Wright	Wisconsin	Monroe
Minnesota	Dakota			Wisconsin	Oconto
Minnesota	Dodge	Wisconsin	Adams	Wisconsin	Outagamie
Minnesota	Douglas	Wisconsin	Ashland	Wisconsin	Ozaukee
Minnesota	Fillmore	Wisconsin	Barron	Wisconsin	Pepin
Minnesota	Goodhue	Wisconsin	Bayfield	Wisconsin	Pierce
Minnesota	Hennepin	Wisconsin	Brown	Wisconsin	Polk
Minnesota	Houston	Wisconsin	Buffalo	Wisconsin	Portage
Minnesota	Kanabec	Wisconsin	Burnett	Wisconsin	Price
Minnesota	Kandiyohi	Wisconsin	Calumet	Wisconsin	Racine
Minnesota	Le Sueur	Wisconsin	Chippewa	Wisconsin	Richland
Minnesota	Mc Leod	Wisconsin	Clark	Wisconsin	Rock
Minnesota	Mahnomen	Wisconsin	Columbia	Wisconsin	Rusk
Minnesota	Meeker	Wisconsin	Dane	Wisconsin	St. Croix
Minnesota	Mille Lacs	Wisconsin	Dodge	Wisconsin	Sauk
Minnesota	Morrison	Wisconsin	Door	Wisconsin	Sawyer
Minnesota	Mower	Wisconsin	Dunn	Wisconsin	Shawano
Minnesota	Nicollet	Wisconsin	Eau Claire	Wisconsin	Sheboygan

Table 3 (continued)
Upper Midwest Order Marketing Area
List of Counties with Five or More Milk Buyers ^{1/}
December 2006

<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>
Wisconsin	Taylor	Wisconsin	Washburn	Wisconsin	Waushara
Wisconsin	Trempealeau	Wisconsin	Washington	Wisconsin	Winnebago
Wisconsin	Vernon	Wisconsin	Waukesha	Wisconsin	Wood
Wisconsin	Walworth	Wisconsin	Waupaca		

^{1/} Milk buyers are cooperatives and proprietary organizations that submit producer payrolls to Federal Order 30. Data are only listed for counties within the Upper Midwest Marketing Area.

<p>Prepared by: Market Administrator's Office Minneapolis, Minnesota June 2007</p> <p>Requested by: Paul G. Christ</p>
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Table 4

Upper Midwest Order Marketing Area

List of Counties with a Herfindahl-Hirschman Index of .50 or Less ^{1/} December 2006

<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>
Illinois	Boone	Minnesota	Le Sueur	Wisconsin	Barron
Illinois	De Kalb	Minnesota	Lyon	Wisconsin	Bayfield
Illinois	Jo Daviess	Minnesota	Mc Leod	Wisconsin	Brown
Illinois	Kane	Minnesota	Mahnomen	Wisconsin	Buffalo
Illinois	Mc Henry	Minnesota	Martin	Wisconsin	Calumet
Illinois	Ogle	Minnesota	Meeker	Wisconsin	Chippewa
Illinois	Stephenson	Minnesota	Mille Lacs	Wisconsin	Clark
Illinois	Winnebago	Minnesota	Morrison	Wisconsin	Columbia
		Minnesota	Mower	Wisconsin	Dane
Iowa	Howard	Minnesota	Nicollet	Wisconsin	Dodge
Iowa	Winneshiek	Minnesota	Olmsted	Wisconsin	Door
		Minnesota	Otter Tail	Wisconsin	Douglas
Michigan	Menominee	Minnesota	Pine	Wisconsin	Dunn
		Minnesota	Pope	Wisconsin	Eau Claire
Minnesota	Anoka	Minnesota	Red Lake	Wisconsin	Fond du Lac
Minnesota	Becker	Minnesota	Rice	Wisconsin	Forest
Minnesota	Beltrami	Minnesota	Scott	Wisconsin	Green
Minnesota	Benton	Minnesota	Sherburne	Wisconsin	Green Lake
Minnesota	Big Stone	Minnesota	Sibley	Wisconsin	Iowa
Minnesota	Brown	Minnesota	Stearns	Wisconsin	Jackson
Minnesota	Carver	Minnesota	Steele	Wisconsin	Jefferson
Minnesota	Chippewa	Minnesota	Swift	Wisconsin	Juneau
Minnesota	Chisago	Minnesota	Todd	Wisconsin	Kewaunee
Minnesota	Clay	Minnesota	Wabasha	Wisconsin	La Crosse
Minnesota	Crow Wing	Minnesota	Wadena	Wisconsin	Lafayette
Minnesota	Dakota	Minnesota	Waseca	Wisconsin	Langlade
Minnesota	Dodge	Minnesota	Washington	Wisconsin	Lincoln
Minnesota	Douglas	Minnesota	Watonwan	Wisconsin	Manitowoc
Minnesota	Faribault	Minnesota	Winona	Wisconsin	Marathon
Minnesota	Fillmore	Minnesota	Wright	Wisconsin	Monroe
Minnesota	Freeborn			Wisconsin	Oconto
Minnesota	Goodhue	N. Dakota	La Moure	Wisconsin	Outagamie
Minnesota	Hennepin			Wisconsin	Ozaukee
Minnesota	Houston	Wisconsin	Adams	Wisconsin	Pepin
Minnesota	Kanabec	Wisconsin	Ashland	Wisconsin	Pierce

Table 4
Upper Midwest Order Marketing Area
List of Counties with a Herfindahl-Hirschman Index of .50 or Less ^{1/}
December 2006

<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>
Wisconsin	Polk	Wisconsin	Sawyer	Wisconsin	Washburn
Wisconsin	Portage	Wisconsin	Shawano	Wisconsin	Washington
Wisconsin	Price	Wisconsin	Sheboygan	Wisconsin	Waukesha
Wisconsin	Richland	Wisconsin	Taylor	Wisconsin	Waupaca
Wisconsin	Rock	Wisconsin	Trempealeau	Wisconsin	Waushara
Wisconsin	Rusk	Wisconsin	Vernon	Wisconsin	Winnebago
Wisconsin	St. Croix	Wisconsin	Walworth	Wisconsin	Wood
Wisconsin	Sauk				

^{1/} The Herfindahl-Hirschman Index (HHI) is a measure of competition. In this case, it is a measure of the competition for milk supplies within a county. The HHI is computed as $HHI = \sum_i (q_i/Q)^2$, where i is the number of milk buyers in the county, q_i is the quantity of milk purchased by a buyer in the county, and Q is the total milk purchased by all buyers in the county. Only milk shown on payrolls submitted to Federal Order 30 is included. Data are only listed for counties within the Upper Midwest Marketing Area.

<p>Prepared by: Market Administrator's Office Minneapolis, Minnesota June 2007</p> <p>Requested by: Paul G. Christ</p>
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Table 5

Upper Midwest Order Marketing Area

List of Counties with a Herfindahl-Hirschman Index of .33 or Less ^{1/} December 2006

<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>
Illinois	Jo Daviess	Minnesota	Sibley	Wisconsin	La Crosse
Illinois	Mc Henry	Minnesota	Stearns	Wisconsin	Lafayette
Illinois	Ogle	Minnesota	Steele	Wisconsin	Langlade
Illinois	Stephenson	Minnesota	Todd	Wisconsin	Lincoln
Minnesota	Becker	Minnesota	Wadena	Wisconsin	Manitowoc
Minnesota	Benton	Minnesota	Watonwan	Wisconsin	Marathon
Minnesota	Brown	Minnesota	Winona	Wisconsin	Monroe
Minnesota	Carver	Minnesota	Wright	Wisconsin	Oconto
Minnesota	Chisago	Wisconsin	Ashland	Wisconsin	Outagamie
Minnesota	Clay	Wisconsin	Barron	Wisconsin	Ozaukee
Minnesota	Dakota	Wisconsin	Bayfield	Wisconsin	Pepin
Minnesota	Douglas	Wisconsin	Brown	Wisconsin	Pierce
Minnesota	Faribault	Wisconsin	Buffalo	Wisconsin	Polk
Minnesota	Fillmore	Wisconsin	Calumet	Wisconsin	Portage
Minnesota	Freeborn	Wisconsin	Calumet	Wisconsin	Richland
Minnesota	Goodhue	Wisconsin	Chippewa	Wisconsin	Rock
Minnesota	Hennepin	Wisconsin	Clark	Wisconsin	Rusk
Minnesota	Houston	Wisconsin	Columbia	Wisconsin	St. Croix
Minnesota	Kanabec	Wisconsin	Dane	Wisconsin	Sauk
Minnesota	Le Sueur	Wisconsin	Dodge	Wisconsin	Shawano
Minnesota	Mc Leod	Wisconsin	Door	Wisconsin	Sheboygan
Minnesota	Mille Lacs	Wisconsin	Dunn	Wisconsin	Taylor
Minnesota	Morrison	Wisconsin	Eau Claire	Wisconsin	Trempealeau
Minnesota	Nicollet	Wisconsin	Fond du Lac	Wisconsin	Vernon
Minnesota	Olmsted	Wisconsin	Forest	Wisconsin	Walworth
Minnesota	Otter Tail	Wisconsin	Green	Wisconsin	Washington
Minnesota	Pine	Wisconsin	Green Lake	Wisconsin	Waukesha
Minnesota	Pope	Wisconsin	Iowa	Wisconsin	Waupaca
Minnesota	Red Lake	Wisconsin	Jackson	Wisconsin	Waushara
Minnesota	Rice	Wisconsin	Jefferson	Wisconsin	Winnebago
Minnesota	Scott	Wisconsin	Juneau	Wisconsin	Wood
		Wisconsin	Kewaunee		

^{1/} The Herfindahl-Hirschman Index (HHI) is a measure of competition. In this case, it is a measure of the competition for milk supplies within a county. The HHI is computed as $HHI = \sum (q_i/Q)^2$, where i is the number of milk buyers in the county, q_i is the quantity of milk purchased by a buyer in the county, and Q is the total milk purchased by all buyers in the county. Only milk shown on payrolls submitted to Federal Order 30 is included. Data are only listed for counties within the Upper Midwest Marketing Area.

<p>Prepared by: Market Administrator's Office Minneapolis, Minnesota June 2007</p> <p>Requested by: Paul G. Christ</p>
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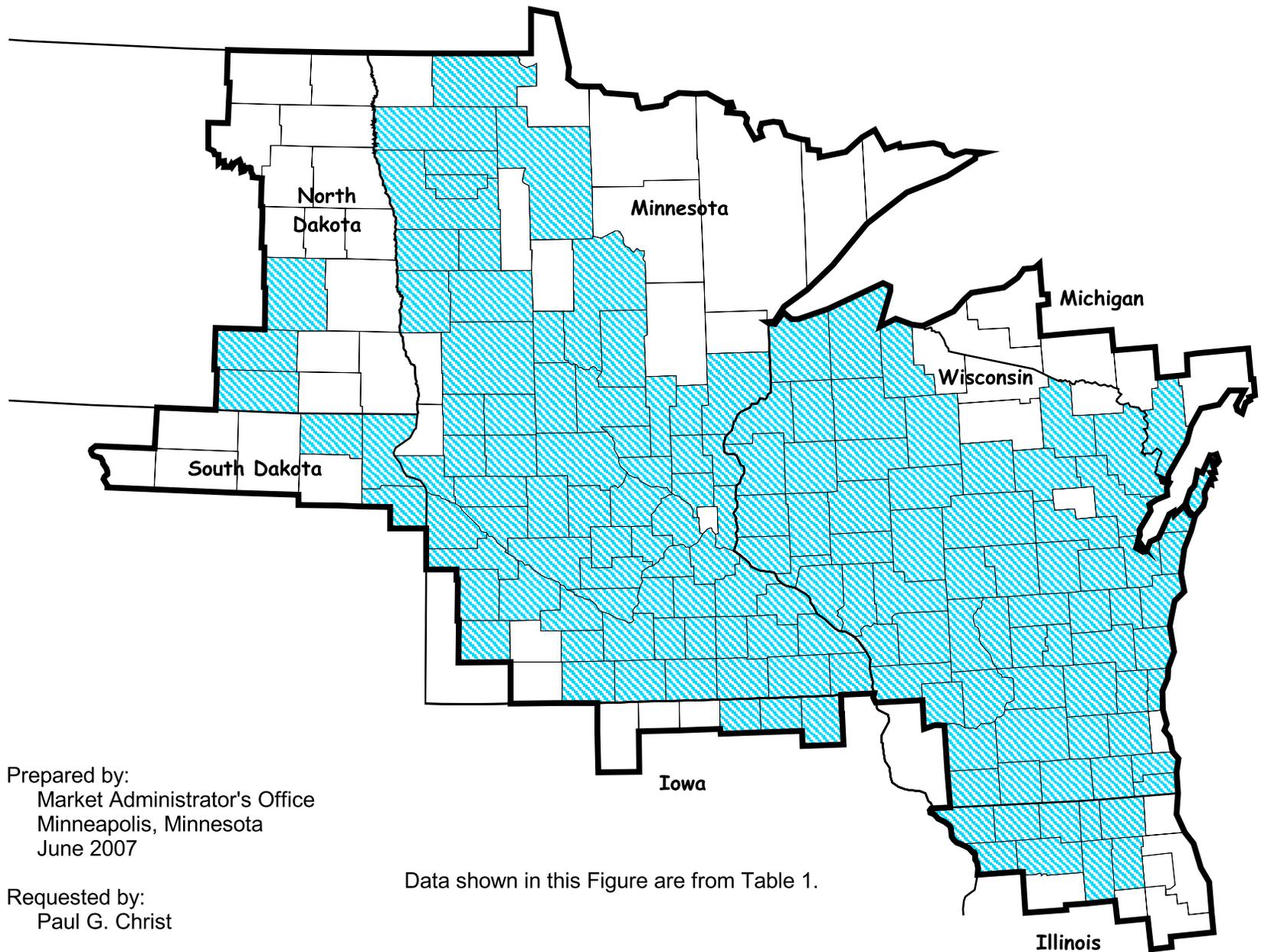
Table 6
Upper Midwest Order Marketing Area
List of Counties with a Herfindahl-Hirschman Index of .25 or Less ^{1/}
December 2006

<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>	<u>State</u>	<u>County</u>
Illinois	Stephenson	Wisconsin	Calumet	Wisconsin	Oconto
		Wisconsin	Chippewa	Wisconsin	Outagamie
Minnesota	Becker	Wisconsin	Clark	Wisconsin	Ozaukee
Minnesota	Benton	Wisconsin	Columbia	Wisconsin	Polk
Minnesota	Chisago	Wisconsin	Dane	Wisconsin	Portage
Minnesota	Douglas	Wisconsin	Dodge	Wisconsin	Richland
Minnesota	Fillmore	Wisconsin	Door	Wisconsin	Rock
Minnesota	Goodhue	Wisconsin	Dunn	Wisconsin	Rusk
Minnesota	Houston	Wisconsin	Eau Claire	Wisconsin	St. Croix
Minnesota	Mille Lacs	Wisconsin	Fond du Lac	Wisconsin	Sauk
Minnesota	Morrison	Wisconsin	Green	Wisconsin	Shawano
Minnesota	Otter Tail	Wisconsin	Green Lake	Wisconsin	Sheboygan
Minnesota	Pope	Wisconsin	Iowa	Wisconsin	Taylor
Minnesota	Rice	Wisconsin	Jackson	Wisconsin	Trempealeau
Minnesota	Scott	Wisconsin	Jefferson	Wisconsin	Vernon
Minnesota	Sibley	Wisconsin	Kewaunee	Wisconsin	Walworth
Minnesota	Todd	Wisconsin	La Crosse	Wisconsin	Washington
Minnesota	Winona	Wisconsin	Lafayette	Wisconsin	Waupaca
Minnesota	Wright	Wisconsin	Langlade	Wisconsin	Waushara
		Wisconsin	Lincoln	Wisconsin	Winnebago
Wisconsin	Barron	Wisconsin	Manitowoc	Wisconsin	Wood
Wisconsin	Brown	Wisconsin	Marathon		

^{1/} The Herfindahl-Hirschman Index (HHI) is a measure of competition. In this case, it is a measure of the competition for milk supplies within a county. The HHI is computed as $HHI = \sum (q_i/Q)^2$, where i is the number of milk buyers in the county, q_i is the quantity of milk purchased by a buyer in the county, and Q is the total milk purchased by all buyers in the county. Only milk shown on payrolls submitted to Federal Order 30 is included. Data are only listed for counties within the Upper Midwest Marketing Area.

<p>Prepared by: Market Administrator's Office Minneapolis, Minnesota June 2007</p> <p>Requested by: Paul G. Christ</p>
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Figure 1
Upper Midwest Order Marketing Area
Counties with Three or More Milk Buyers
December 2006

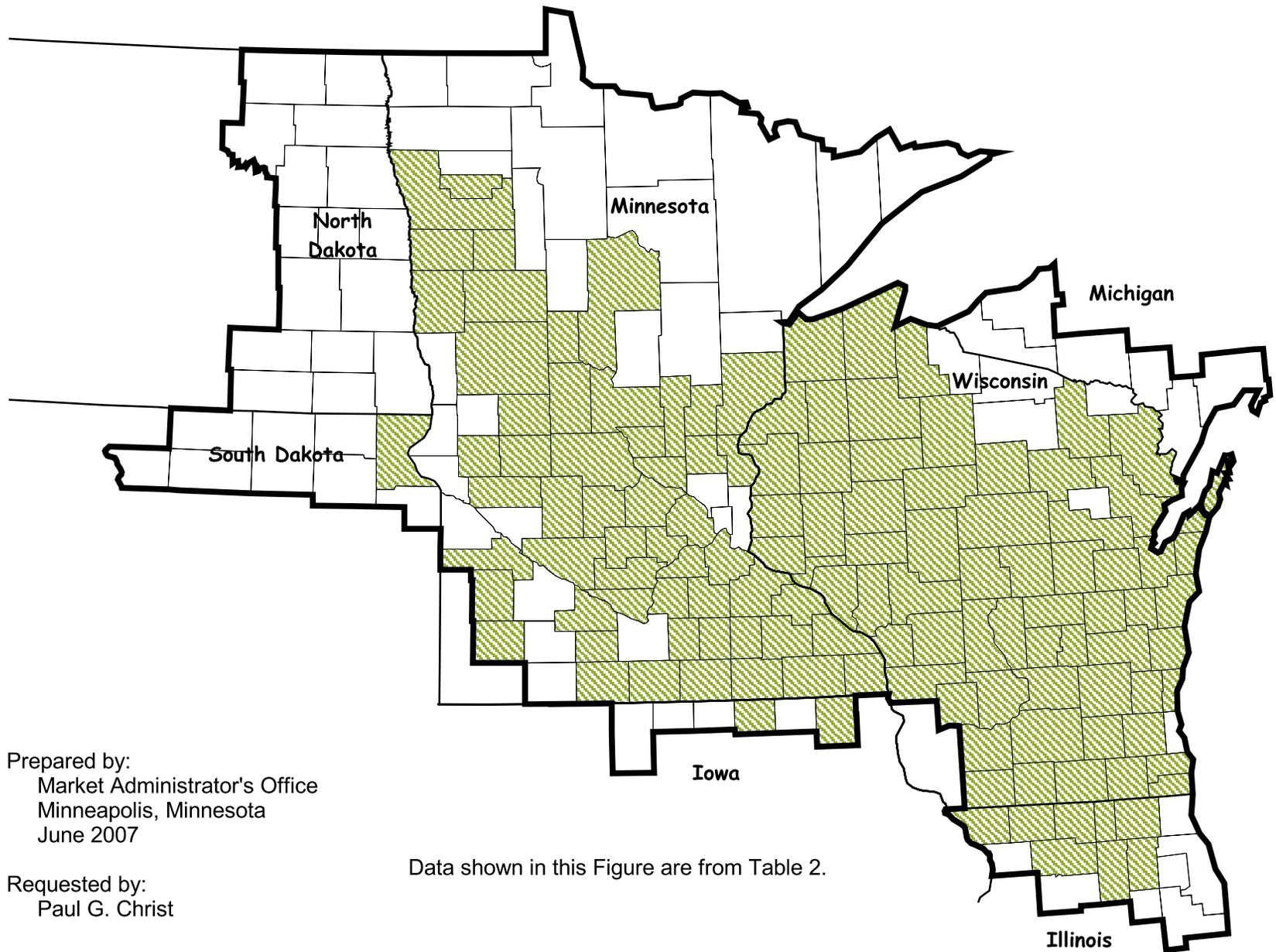


Prepared by:
Market Administrator's Office
Minneapolis, Minnesota
June 2007

Requested by:
Paul G. Christ

Data shown in this Figure are from Table 1.

Figure 2
Upper Midwest Order Marketing Area
Counties with Four or More Milk Buyers
December 2006

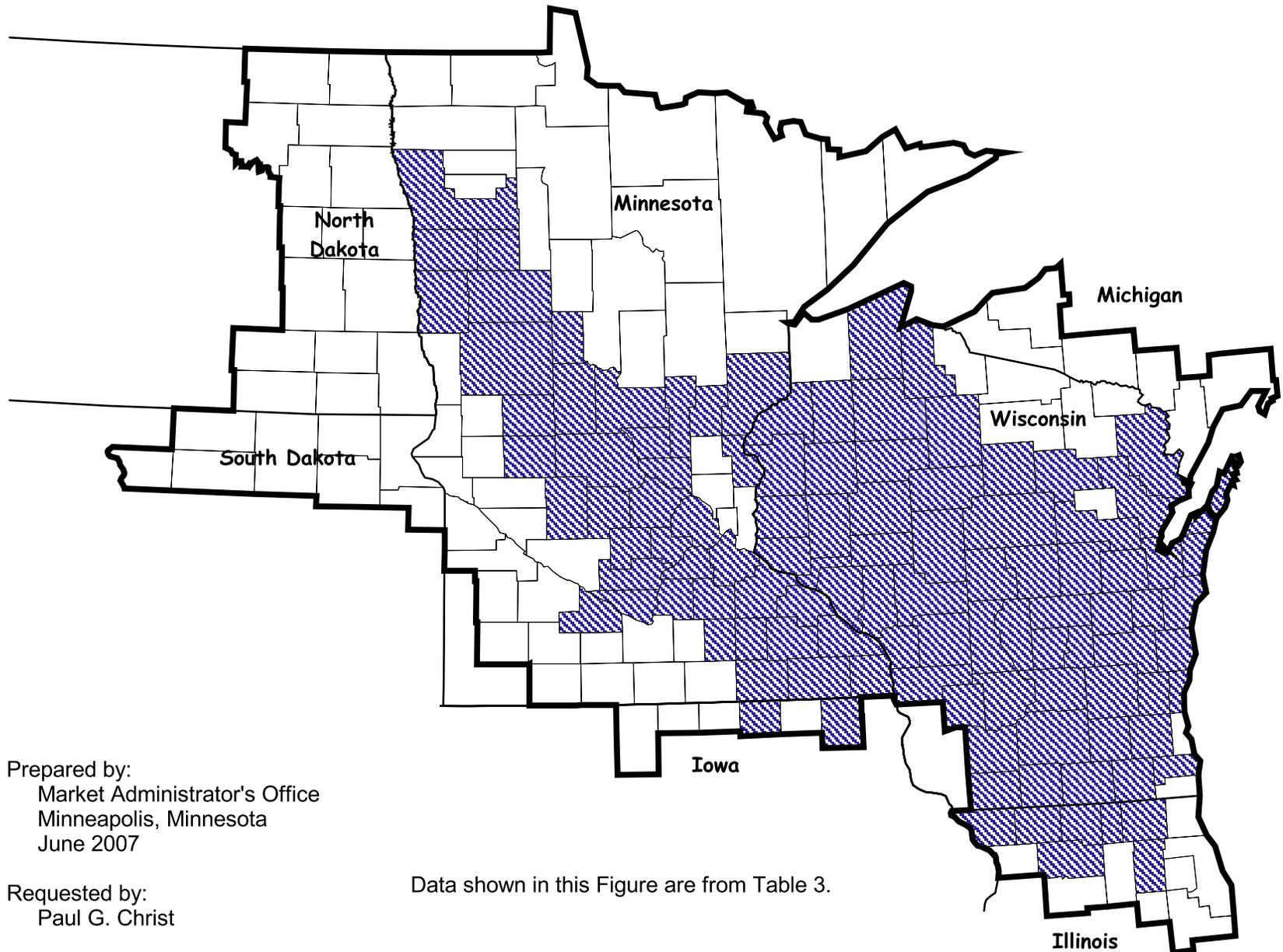


Prepared by:
Market Administrator's Office
Minneapolis, Minnesota
June 2007

Requested by:
Paul G. Christ

Data shown in this Figure are from Table 2.

Figure 3
Upper Midwest Order Marketing Area
Counties with Five or More Milk Buyers
December 2006

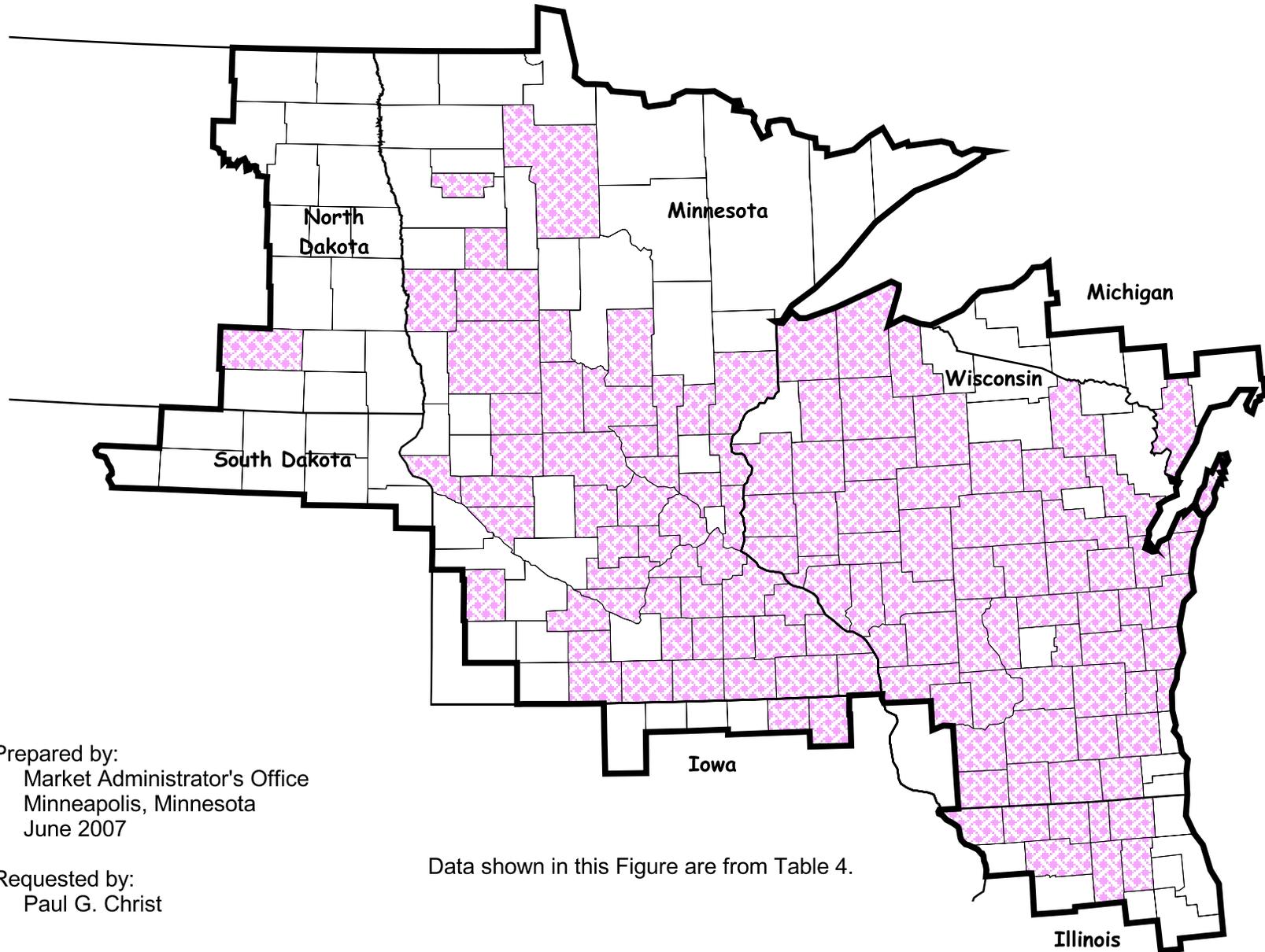


Prepared by:
Market Administrator's Office
Minneapolis, Minnesota
June 2007

Requested by:
Paul G. Christ

Data shown in this Figure are from Table 3.

Figure 4
Upper Midwest Order Marketing Area
Counties with a Herfindahl-Hirschman Index of .50 or Less
December 2006

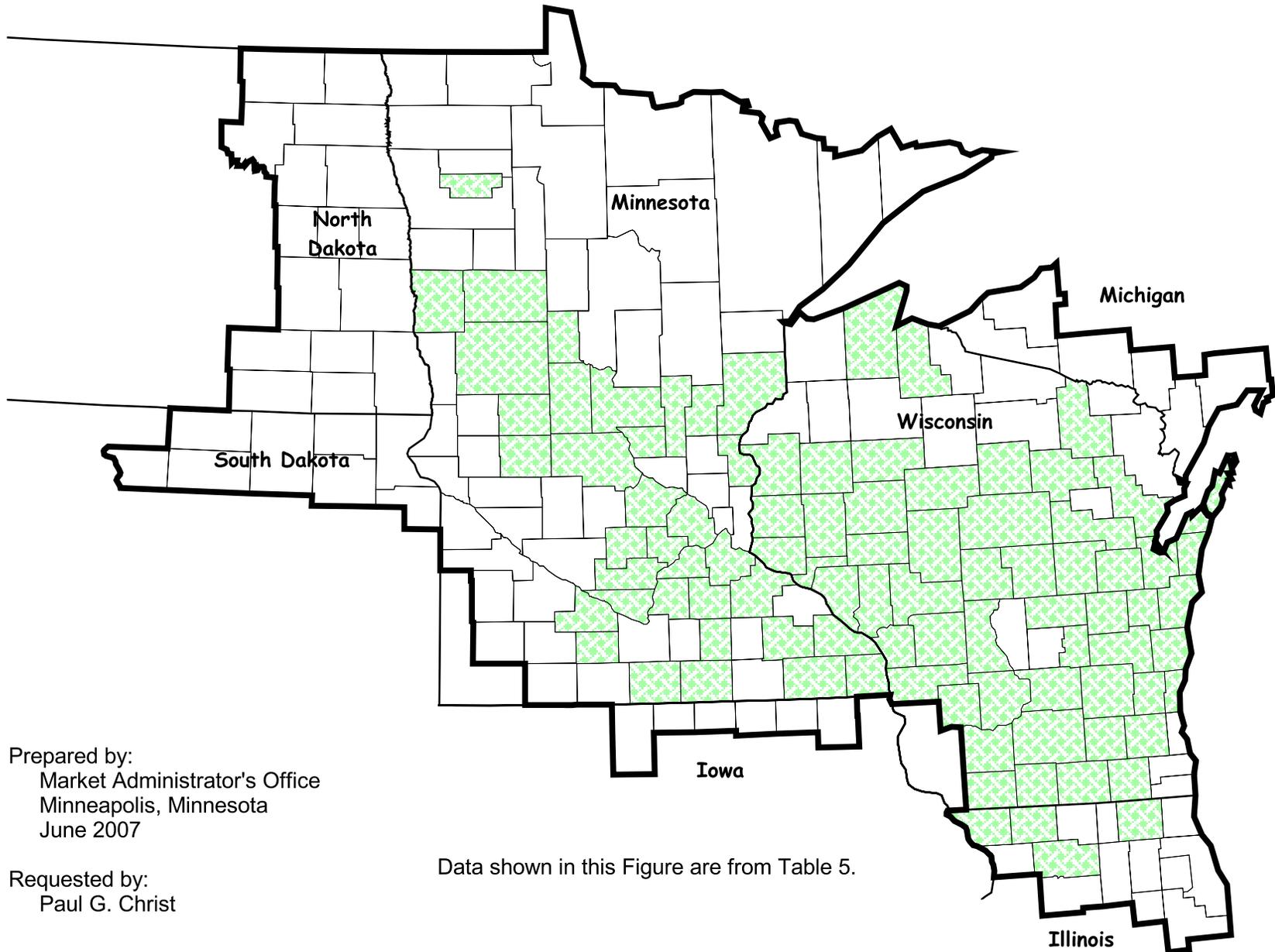


Prepared by:
Market Administrator's Office
Minneapolis, Minnesota
June 2007

Requested by:
Paul G. Christ

Data shown in this Figure are from Table 4.

Figure 5
Upper Midwest Order Marketing Area
Counties with a Herfindahl-Hirschman Index of .33 or Less
December 2006

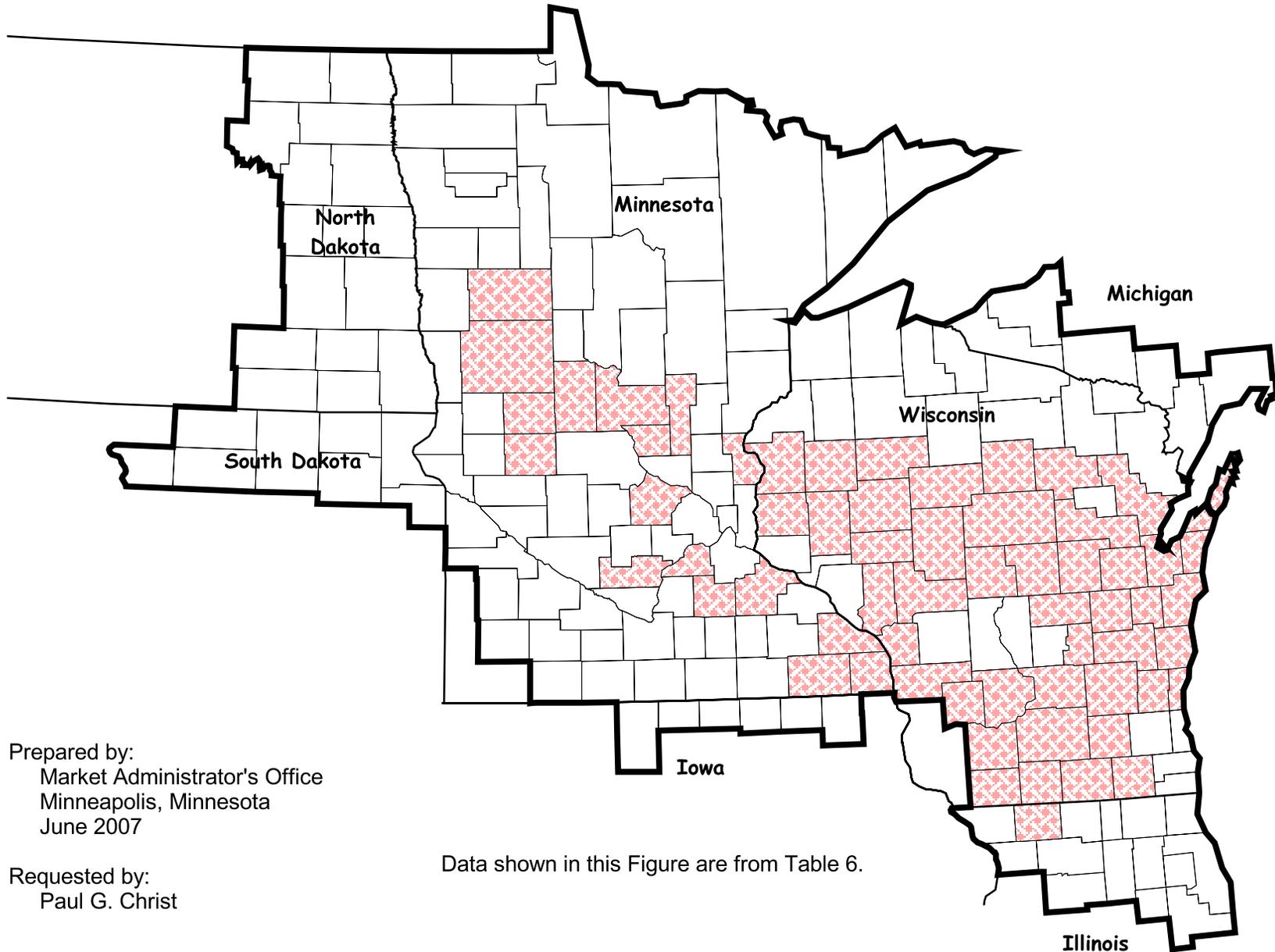


Prepared by:
Market Administrator's Office
Minneapolis, Minnesota
June 2007

Requested by:
Paul G. Christ

Data shown in this Figure are from Table 5.

Figure 6
Upper Midwest Order Marketing Area
Counties with a Herfindahl-Hirschman Index of .25 or Less
December 2006



Prepared by:
Market Administrator's Office
Minneapolis, Minnesota
June 2007

Requested by:
Paul G. Christ

Data shown in this Figure are from Table 6.

APPENDIX B

**Recommended Modifications to the Order Language
of Part 1000 (General Provisions) and Part 1001 (Northeast Order)
to Accommodate a Competitive Pay Price Program (Proposal 18)**

§ 1000.2 Competitive price zone.

The competitive price zone shall include all the territory within the following counties:

***Comment:** These are the counties for which a Herfindahl index of 0.33 or less has been calculated based on number and size of purchases of producer milk by handlers regulated under all Federal milk orders during a representative month preceding the adoption of this provision. Only counties that can be aggregated into a group or ten or more contiguous counties should be included.*

The counties to be included in the competitive price zone should be renewed every five years.

* * *

§ 1001.30 Reports of receipts and utilization.

* * *

(a)(1)(i) Receipts of producer milk, including producer milk diverted by the reporting handler, from sources other than handlers described in S 1000.9(c). A separate report should be filed for milk received from producers in the competitive price zone; and,

***Comment:** This separate report is not essential, but it would give the market administrator early knowledge of the amount of milk in the competitive price zone. The MA could then use this information to adjust for errors in estimated amount of such milk for which the 12-month rolling average PPD was distributed.*

* * *

§ 1001.31 Payroll reports.

(a) On or before the 22nd day after the end of each month, each handler that operates a pool plant pursuant to § 1001.7 and each handler described in § 1000.9(c) shall report to the market administrator its producer payroll for the month, in detail prescribed by the market administrator, showing for each producer the information specified in § 1001.73(e). A separate

report shall be filed for producers located in the competitive price zone and for producers located outside the competitive price zone.

Comment: The separate producer payroll report for producers located in the competitive price zone will give the market administrator the information needed to determine the “base month price” for the competitive price zone.

* * *

§ 1000.50 Class prices, component prices, and advanced pricing factors.

* * *

- (i) Basic formula price. The basic formula price shall be the price announced by the Secretary on or before the fifth of the following month derived from competitive pay price information in the competitive price zone.
- (j) Class III skim milk price. The Class III skim milk price per hundredweight shall be the basic formula price for milk containing 3.5 percent butterfat, less 3.5 times the butterfat price, divided by .965.

Comment: This change bases the Class III skim milk price on the basic formula price determined from competitive payments in the competitive price zone.

* * *

- (m) Nonfat solids price. The nonfat solids price per pound, rounded to the nearest one-hundredth cent, shall be the basic formula price, minus (1) the average pounds of protein per hundredweight in the milk in the competitive price zone, times the protein price, and (2) the average pounds of butterfat per hundredweight in the milk in the competitive price zone, times the butterfat, divided by the average pounds of other solids per hundredweight in the milk in the competitive price zone.

Comment: This change assigns the residual value in the basic formula price to other solids. This is the adjustment factor that would tie the Class III price to the competitive pay price.

* * *

Renumber §§ 1000.50 (j) through (q) as §§ 1000.50 (k) through (r)

* * *

§ 1000.53 Announcement of class prices, component prices, and advanced pricing factors:

* * *

(a)(12) The basic formula price.

Comment: This provision merely provides for the announcement of the basis formula price.

* * *

§ 1001.61 Computation of producer price differential.

* * *

- (g) Multiply the producer price differential for each of the 12 immediately preceding 12 months by the volume of milk in the competitive price zone for those months, and divide by 12. This is the 12-month rolling average producer price differential.

Comment: This is the method for calculating the 12-month rolling average PPD.

* * *

§ 1001.62 Announcement of producer prices.

* * *

- (h) The 12-month rolling average producer price differential.

Comment: This change merely provides for the announcement of the 12-month rolling average PPD.

* * *

§ 1000.70 Producer-settlement fund and producer price differential reserve fund.

- (a) The market administrator shall establish and maintain a separate fund known as the producer-settlement fund into which the market administrator shall deposit all payments made by handlers pursuant to §§ ----.71, ----.76, and ----.77 of each Federal milk order and out of which the market administrator shall make all payments pursuant to §§ ----.72, and - ---.77 of each Federal milk order. Payments due any handler shall be offset by any payments due from the handler.
- (b) The market administrator shall establish and maintain a separate fund known as the producer price differential reserve fund into which the market administrator shall deposit the current month value of the producer

price differential times the volume of producer milk in the competitive price zone, pursuant to § 1001.71 and out of which the market administrator shall make all payments pursuant to § 1001.72.

Comment: This change creates a separate fund into which the current PPD is deposited on the milk in the competitive price zone, and from which the 12-month rolling average PPD is paid out on the current volume of milk in the competitive price zone.

* * *

§ 1001.71 Payments to the producer-settlement fund and the producer price differential reserve fund.

* * *

(b)(4) An amount obtained by multiplying the pounds of skim milk and butterfat in producer milk in the competitive price zone by the producer price differential.

(c) Each handler shall make payment to the producer price differential reserve fund in an amount obtained by multiplying the hundredweight of milk in the competitive price zone by the producer price differential.

Comment: This change would separate payments to the producer-settlement fund from payments to the producer price differential reserve fund.

* * *

§ 1001.72 Payments from the producer-settlement fund and the producer price differential reserve fund.

(a) No later than the day ...as the funds are available.

(b) No later than the last day of the month the market administrator shall pay to each handler purchasing producer milk in the competitive price zone and amount obtained by multiplying the 12-month rolling average producer price differential by one-half the volume of milk each such handler is expected to purchase during the month.

(c) No later than the 15th day of the following month the market administrator shall pay to each handler purchasing milk the competitive price zone an amount similar to the amount paid pursuant to paragraph (b), above, adjusted for changes in the estimated volume of milk the handler will purchase in the competitive price zone.

Comment: *This change provides for the market administrator to pay the 12-month rolling average PPD to handlers buying milk in the competitive price zone.*

* * *

§ 1001.73 Payments to producers and to cooperative associations.

- (a) Each handler that is not paying a cooperative association for producer milk shall pay each producer who is not in the competitive price zone as follows:

Comment: *This change provides that normal payments are made only to producers who are not in the competitive price zone.*