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**ANALYSIS OF HAULING CHARGES AND PRODUCER MILK BY
LOCATION AND SIZE-RANGE OF PRODUCTION**

PACIFIC NORTHWEST ORDER

MAY 2005 (with comparison to May of previous years)

Staff Paper 05-03

Chris Werner

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Abstract

Hauling charges were examined for 819 producers in May 2005. The milk represented in this study was producer milk (Grade A) pooled on the Pacific Northwest Order. Hauling charges, stop charges, and milk production were obtained from producer payrolls submitted by handlers to the Market Administrator's office. The terms "milk production" and "producer milk" in this study are synonymous. Hauling charges in this paper are given on a per hundredweight basis. The reference to a particular year refers to May of that year. Some comparisons to previous years are reported, but due to changes in Federal order boundaries and order provisions, these comparisons may be biased.

Major findings of this study include:

1. In May 2005, the weighted average hauling charges on the Pacific Northwest Order was 51.71 cents per hundredweight, up 2.21 cents from May 2004.
2. By state, Oregon had the lowest weighted average hauling charge, followed by Idaho, Washington, and California.
3. In general, hauling charges in the Northwest appear to be determined by the density of farms in a region; and their proximity to metropolitan areas or areas of intense milk processing. Hauling charges per hundredweight appear to have become somewhat less dependent on the volume of milk a producer delivers to the market. The increased use of volume premiums paid to producers who deliver larger quantities of milk instead of lowering their hauling rates contributes to this change.
4. Based on producer milk pooled, the average monthly deliveries per producer for the Pacific Northwest Order was 736,802 pounds.

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PACIFIC NORTHWEST ORDER

MAY 2005 (with comparisons to May of previous years)

Chris Werner ^{1/}

I. INTRODUCTION

This study analyzes hauling charges and producer milk by location and size-range of production for the Pacific Northwest Order. The order had 854 producers and 629.2 million pounds of producer milk pooled in May 2005. A total of 819 producers had hauling charges and were included in this study. The terms “milk production” and “producer milk” in this study are synonymous. Some comparisons to previous years are reported, but due to changes in Federal order provisions beginning in January 2000 and January 2003, these comparisons may be biased. (Please refer to previous years' publications to explain methodology of previous years' data, i.e., in 2004, 2002, and 2001 some eligible milk on the Pacific Northwest Order was not pooled.)

Hauling charges are based on producer payrolls submitted by handlers to the Market Administrator's Office in Bothell, Washington. Several handlers identify a stop charge with, or in lieu of, a hauling charge. Stop charges were converted to a per hundredweight basis and added onto, if any, the normal per hundredweight charge. Producers that hauled their own milk to market, typically large-volume producers, were not included in the analysis of hauling charges but were included in the analysis of producer size.

Hauling charges in this paper are given on a per hundredweight basis. The use of May data provides a standard basis to compare between years. The reference to a particular year refers to May of that year.

II. AVERAGE MILK HAULING CHARGES BY ORDER, STATE, AND COUNTY

A comparison of average hauling charges between regions in May 2005 tends to reveal the relative efficiency of hauling, as it relates to the density and size of dairy farms and their proximity to milk processors.

Hauling charges for producers associated with the Pacific Northwest Order averaged 51.71 cents per hundredweight in May 2005, up 2.21 cents from May 2004. By state, hauling charges averaged 31.36 cents in Oregon, 39.85 cents in Idaho, 57.14 cents in Washington, and 76.92 cents in California. (See Table 1.)

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Institutional factors aside, average hauling charges have increased from 2004. An increase in fuel prices from early 2004 compared to 2005 may have been a factor in the higher hauling rates. According to the Energy Information Administration, pre-tax diesel fuel prices for the United States in May 2005 (\$1.589) increased 36 cents compared to May 2004 (\$1.226) and increased 72 cents compared to May 2003 (\$0.871). Oregon hauling rates decreased slightly compared to 2004, while Washington, Idaho, and California increased two to three cents per hundredweight.

Weighted average hauling charges for each state under the Pacific Northwest Order are shown in Table 1. Appendix Table A-1 provides hauling charges by state and county for May 2004 and 2005.

Hauling charges in Washington were lower west of the Cascade Mountain Range. Counties located near Seattle, Washington, and further south, near Portland, Oregon, had the lowest hauling charges. The hauling charges increased with distance from Seattle and Spokane, Washington and Portland, Oregon. This is believed to be due to the location of dairy farms relative to plants and the relative concentration of dairy farms. Washington's weighted average hauling rate increase over two cents compared to May 2004. Most counties in Washington showed an increase in hauling of one to three cents per hundredweight. Only Lewis County showed a decrease in hauling charges compared to May 2004.

Hauling charges in Oregon were lowest in the northwest region of the state. The northwest part of Oregon is where the majority of dairy farms and the largest number of consumers are located. Higher hauling charges occurred in Oregon's eastern counties. The distance from the farms to the nearest handler is the probable cause of the higher hauling charges in eastern Oregon. Dairy farmers in some counties in western Oregon may incur relatively higher hauling charges due to the sparse producer numbers in those particular counties. Oregon's weighted average hauling rate decreased slightly compared to May 2004. Five Oregon counties had decreases in hauling rates which more than offsets the increases by the other counties.

<u>State</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>
	- - - - - cents per cwt. - - - - -					
California	77.26	66.51	37.77	71.38	73.90	76.92
Idaho	109.74	41.88	56.41	116.69	37.87	39.85
Oregon	33.02	32.48	32.26	34.39	31.81	31.36
Utah	N/A	43.15	R	N/A	N/A	N/A
Washington	45.67	41.53	41.49	44.54	54.61	57.14
Total	43.31	40.10	39.71	42.76	49.50	51.71

N/A = not applicable. R = restricted, represents fewer than three producers.

Hauling charges in Idaho were the lowest in the southern parts of the state. This area is characterized by many large dairies located relatively close to plants. In northern Idaho, the charge of hauling is much higher due most probably to fewer and much smaller dairies located

further from plants, when compared to southern Idaho. Idaho's weighted average hauling rate increased two cents compared to May 2004.

Del Norte and Siskiyou counties in California have producer milk historically pooled on the Pacific Northwest Order, only producers in Siskiyou County had hauling charge information. Producers in Del Norte County were not included in the analysis of hauling charges. California's weighted average hauling rate increased three cents compared to May 2004.

Average hauling charges by county are displayed in the Appendix. Selected counties are combined with adjacent counties in order to maintain confidentiality. Table A-1 (on pages 6 and 7) shows weighted average hauling charges by county and state.

Mapping data geographically is an ideal way to present and evaluate hauling charge data. Figure A-1 (on page 11) is a map of hauling charges by county. Figure A-3 (on page 13) is a map to reference county names to the maps that do not provide names and an outline of the Pacific Northwest Order. Figure A-1 shows that hauling charges in parts of northwestern Oregon (Tillamook, Marion, and Polk Counties), western Washington (Clark, King, and Pierce Counties), and southern Idaho (Canyon County) were less than 30 cents. Most of these counties are either in areas characterized by larger volume producers, or a large number of producers located near a plant. Higher hauling charges were generally associated with counties located in more remote areas of the states. In support of the preceding statements, counties located near Seattle and Spokane, Washington, have lower hauling charges than more distant, surrounding counties. To a lesser extent, hauling charges tend to increase as the distance to Portland, Oregon, increases. This latter, "weaker" relationship may be due to the fact that Oregon has many more, relatively smaller plants dispersed over a larger area than is the case in Washington.

III. PRODUCER MILK AND PRODUCER NUMBERS

The Pacific Northwest Order's producer milk for May 2005 totaled 629.2 million pounds. Appendix Figure A-2 (on page 12) shows, on a map of the Northwest, current average pounds of milk per producer pooled on the Pacific Northwest Order. Appendix Table A-2 (on pages 8 and 9) provides the pounds of producer milk, producer numbers, and average milk production per producer.

Producer milk originating in Washington totaled 471.5 million pounds in May 2005, an increase of 138.1 million pounds or 41.4 percent compared to May 2004. In May 2004, producer milk historically pooled on the Pacific Northwest was not pooled due to the Class III and uniform price relationship. Comparisons to the previous year are biased. The county with the most milk pooled was Yakima County, 175.3 million pounds. Whatcom county had the most producers, 167, the second most was Yakima County with 67.

Producer milk originating in Oregon totaled 138.1 million pounds in May 2005 for the Pacific Northwest Order, an increase of 50.8 million pounds or 58.2 percent compared to May 2004. The number of producers pooled on the Pacific Northwest Order in May 2005 was 282 producers, an increase of 134 producers. As mentioned and explained above, comparisons to the

previous year are biased. Tillamook County had the most milk pooled, 48.5 million pounds, and the most producers, 133.

Producer milk pooled on the Pacific Northwest Order originating in Idaho and California was 15.5 million pounds and 4.1 million pounds, respectively, in May 2005. The number of producers in Idaho and California was 35 and six, respectively. In May 2005, the amount of producer milk pooled from southern Idaho increased compared to May 2004, but producer milk pooled from California decreased slightly.

IV. RELATIONSHIP BETWEEN MILK PRODUCTION AND HAULING CHARGES

The data in this study shows that as the milk production of a dairy farm increases, up to 600,000 pounds of milk per month, the weighted average rates charged for hauling decrease. Over 600,000 pounds of milk per month, as milk production increases, hauling rates tend to increase. The expected inverse relationship between milk production and hauling charge rates is not evident across all ranges of milk production. One factor contributing to the deviation from an inverse relationship is the way handlers of milk pay volume premiums instead of decreasing hauling rates to producers with larger monthly milk deliveries. The proximity of larger dairy farms to milk processing and fluid milk outlets may also influence those dairy farms' hauling rates.

Appendix Table A-3 representing 819 producers, shows the number of producers for each range of hauling charges and milk production for the Pacific Northwest Order. Included in the table is a weighted average hauling charge for each size-range of milk production. Appendix Table A-4, shows the percentage of producers for each range of hauling charges and milk production for the Pacific Northwest Order.

In the Pacific Northwest Order, 26 producers were charged over \$1.00 per hundredweight for hauling; most of these producers had less than 300,000 pounds of milk production. Only four of the 38 producers with less than 50,000 pounds had hauling charges less than 50 cents. The mid-range hauling charge (20 to 70 cents) is populated by a wide variety of producer sizes. There were six producers with hauling charges less than 20 cents. The average hauling rate for each size-range (Table A-3) decreases as deliveries increase until 600,000 pounds. Above 600,000 pounds, the average hauling charge begins to increase. This increase may be attributable to location or institutional factors that affect charges for hauling.

V. CONCLUSIONS

This study examined hauling charges for 819 producers whose milk was pooled on the Pacific Northwest Order in May 2005.

Hauling rates compared to previous years' studies were higher due probably to higher fuel costs in the year 2005 compared to 2004. In May 2005, the weighted average hauling charges on the Pacific Northwest Order was 51.71 cents per hundredweight.

By state, Oregon had the lowest weighted average hauling charge, followed by Idaho, Washington, and California.

In general, hauling charges on the Pacific Northwest Order appears to be determined by the density of farms in a region; the size of dairy farms; and their proximity to metropolitan areas or areas of intense milk processing. Hauling charges per hundredweight appear to have become somewhat less dependent on the volume of milk a producer delivers to the market. This may be due to the use of volume premiums paid to producers who deliver larger quantities of milk instead of lowering their hauling rates.

Based on producer milk pooled, average monthly deliveries per producer for the Pacific Northwest Order was about 736,802 pounds.

Table A-1
 Weighted Average Hauling Charges By State and County
 Pacific Northwest Order
 May 2005 and 2004 *

State & County	2005	2004	Change
Cents per Cwt.			
California			
Siskiyou	76.92	73.90	3.02
Weighted Average California	76.92	73.90	3.02
Idaho			
Bonner & Boundary	88.36	86.05	2.31
Idaho & Latah	133.46	130.99	2.47
Southern Idaho	33.07	29.98	3.09
Weighted Average Idaho	39.85	37.87	1.98
Oregon			
Benton & Lincoln	34.19	32.86	1.33
Clackamas & Multnomah (& Columbia & Umatilla in 2004)	42.10	45.32	(3.22)
Clatsop	46.51	47.85	(1.34)
Coos (& Curry in 2004)	51.82	39.66	12.16
Crook & Deschutes	47.50	50.51	(3.01)
Josephine	62.20	49.35	12.85
Klamath & Jackson	107.61	102.30	5.31
Lane	43.08	39.74	3.34
Linn	37.60	36.51	1.09
Malheur (& Umatilla in 2005)	61.38	47.93	13.45
Marion	27.32	26.56	0.76
Polk	24.33	24.61	(0.28)
Tillamook	24.30	24.63	(0.33)
Washington	30.88	29.57	1.31
Yamhill	30.63	27.71	2.92
Weighted Average Oregon	31.36	31.81	(0.45)

Table A-1
 Weighted Average Hauling Charges By State and County
 Pacific Northwest Order
 May 2005 and 2004 *

State & County	2005	2004	Change
	Cents per Cwt.		
Washington			
Adams (& Whitman in 2004)	62.81	58.86	3.95
Benton	74.13	71.10	3.03
Clallam (& Jefferson in 2005)	68.79	64.75	4.04
Clark (& Cowlitz in 2005)	14.50	12.56	1.94
Cowlitz	n/a	31.83	n/a
Franklin	65.84	63.09	2.75
Grant & Kittitas	62.80	60.38	2.42
Grays Harbor	46.53	45.93	0.60
Island	44.62	44.08	0.54
Jefferson	n/a	73.48	n/a
King	29.66	28.31	1.35
Lewis	41.96	42.19	(0.23)
Pacific	77.25	74.78	2.47
Pierce	25.54	24.39	1.15
Skagit	45.03	42.77	2.26
Snohomish	34.39	32.81	1.58
Spokane & Lincoln	50.54	49.50	1.04
Stevens	70.83	65.21	5.62
Thurston	32.48	30.55	1.93
Wahkiakum	79.28	76.59	2.69
Whatcom	49.91	48.16	1.75
Yakima	73.21	70.99	2.22
Weighted Average Washington	57.14	54.61	2.53
Pacific Northwest Order	51.71	49.50	2.21

* Data obtained from producer payrolls submitted by handlers.

In 2004, eligible milk not pooled due to the relationship between the Class III Price and the Uniform Price was included in weighted average hauling charges shown in this table. In 2005, hauling charges based on milk pooled.

n/a = not applicable, represents fewer than three producers and included with another county.

Table A-2
Number of Producers, Pounds of Milk, and Average Pounds Per Producer By State and County
Pacific Northwest Order
May 2005 and 2004

State & County	Number of Producers		Pounds of Producer Milk		Average Pounds Per Producer	
	2005	2004	2005	2004	2005	2004
----- 1,000 pounds -----						
California						
Del Norte & Siskiyou	6	6	4,131	4,289	688	715
Total/Average California	6	6	4,131	4,289	688	715
Idaho						
Bonner & Boundary	4	5	646	705	161	141
Idaho & Latah	5	5	689	745	138	149
Southern Idaho	26	23	14,144	13,088	544	569
Total/Average Idaho	35	33	15,479	14,537	442	441
Oregon						
Benton & Lincoln	5	6	3,804	4,339	761	723
Clackamas & Multnomah	10	12	1,275	1,664	127	139
Clatsop	6	0	2,098	0	350	0
Coos & Curry	19	20	4,121	3,574	217	179
Deschutes & Crook	7	7	1,328	1,115	190	159
Josephine	4	4	1,902	1,661	475	415
Klamath & Jackson	10	11	9,503	9,448	950	859
Lane	6	6	4,842	5,142	807	857
Linn	9	9	6,188	6,224	688	692
Marion	34	34	30,050	29,411	884	865
Polk	4	4	8,179	8,496	2,045	2,124
Tillamook	133	0	48,455	0	364	0
Umatilla & Malhuer	9	8	2,222	1,808	247	226
Washington	19	20	5,926	6,918	312	346
Yamhill	7	7	8,208	7,502	1,173	1,072
Total/Average Oregon	282	148	138,100	87,301	490	590

Table A-2
Number of Producers, Pounds of Milk, and Average Pounds Per Producer By State and County
Pacific Northwest Order
May 2005 and 2004

State & County	Number of Producers		Pounds of Producer Milk		Average Pounds Per Producer	
	2005	2004	2005	2004	2005	2004
----- 1,000 pounds -----						
Washington						
Adams (& Whitman 2004)	11	7	13,377	9,882	1,216	1,412
Benton & Klickitat	5	4	2,724	1,154	545	288
Clallam (& Jefferson in 2005)	7	5	1,604	1,503	229	301
Clark (& Cowlitz in 2005)	12	11	8,807	7,685	734	699
Cowlitz 1/	1/	3	1/	1,149	1/	383
Franklin	7	11	17,798	18,606	2,543	1,691
Grant & Kittitas	26	28	24,815	24,468	954	874
Grays Harbor	12	13	5,346	5,114	446	393
Island	3	4	2,194	2,306	731	577
Jefferson 2/	2/	3	2/	365	2/	122
King	34	36	18,927	18,554	557	515
Lewis	38	37	15,381	13,912	405	376
Pacific	9	9	2,951	3,177	328	353
Pierce	7	10	5,323	6,443	760	644
Skagit	47	49	30,788	31,525	655	643
Snohomish	35	38	23,751	24,059	679	633
Spokane & Lincoln	15	15	2,685	2,878	179	192
Stevens	13	14	1,814	2,130	140	152
Thurston	12	16	10,061	10,539	838	659
Wahkiakum	4	4	811	852	203	213
Whatcom	167	177	107,111	108,281	641	612
Yakima	67	18	175,250	38,804	2,616	2,156
Total/Average Washington	531	512	471,519	333,385	888	651
Pacific Northwest Order	854	699	629,229	439,513	737	629

* Data obtained from producer payrolls submitted by handlers.

n/a = not available.

1/ In 2005, Cowlitz County, Washington, had fewer than 3 producers and was included with Clark County, Washington.

2/ In 2005, Jefferson County, Washington, had fewer than 3 producers and was included with Clallam County, Washington.

Table A-3
 Cross Tabulation of Number of Producers Between Milk Production and Hauling Charges
 Pacific Northwest Order
 May 2005

		Hauling Charges (cents per hundredweight)										Weighted Average Rate (cents / cwt.)	
		Less than 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 100	Greater than 100		Total
		----- number of producers -----											
Milk Production (1,000 pounds)	Less than 50				4		2	4	6	8	14	38	90.64
	50 to 100			9	1	5	12	20	7	7	4	65	62.68
	100 to 200			28	8	32	36	15	9	11	5	144	52.35
	200 to 300	1		23	23	19	33	10	6	4	2	121	47.01
	300 to 400			20	9	7	16	3	4	1		60	42.86
	400 to 500	1		17	12	11	14		3	2		60	40.89
	500 to 600	1		15	8	9	2	2	1			38	36.09
	600 to 700			9	9	11	6	4		1		40	43.03
	700 to 1,000	1		25	22	13	10	4	7	2	1	85	42.44
	1,000 to 3,000	2		24	19	35	1	20	28	8		137	51.91
More than 3,000			5	1	3		3	18	1		31	62.30	
Total		6	-	175	116	145	132	85	89	45	26	819	51.71

Table A-4
 Cross Tabulation of Percentage of Producers Between Milk Production and Hauling Charges
 Pacific Northwest Order
 May 2005

		Hauling Charges (cents per hundredweight)										Weighted Average Rate (cents / cwt.)	
		Less than 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 100	Greater than 100		Total 1/
		----- percent of producers -----											
Milk Production (1,000 pounds)	Less than 50				0.5		0.2	0.5	0.7	1.0	1.7	4.6	90.64
	50 to 100			1.1	0.1	0.6	1.5	2.4	0.9	0.9	0.5	7.9	62.68
	100 to 200			3.4	1.0	3.9	4.4	1.8	1.1	1.3	0.6	17.6	52.35
	200 to 300	0.1		2.8	2.8	2.3	4.0	1.2	0.7	0.5	0.2	14.8	47.01
	300 to 400			2.4	1.1	0.9	2.0	0.4	0.5	0.1		7.3	42.86
	400 to 500	0.1		2.1	1.5	1.3	1.7		0.4	0.2		7.3	40.89
	500 to 600	0.1		1.8	1.0	1.1	0.2	0.2	0.1			4.6	36.09
	600 to 700			1.1	1.1	1.3	0.7	0.5		0.1		4.9	43.03
	700 to 1,000	0.1		3.1	2.7	1.6	1.2	0.5	0.9	0.2	0.1	10.4	42.44
	1,000 to 3,000	0.2		2.9	2.3	4.3	0.1	2.4	3.4	1.0		16.7	51.91
More than 3,000			0.6	0.1	0.4		0.4	2.2	0.1		3.8	62.30	
Total 1/		0.7		21.4	14.2	17.7	16.1	10.4	10.9	5.5	3.2	100.0	51.71

1/ Total may not add due to rounding.

FIGURE A-1
Weighted Average Hauling Charges
Pacific Northwest Order: May 2005

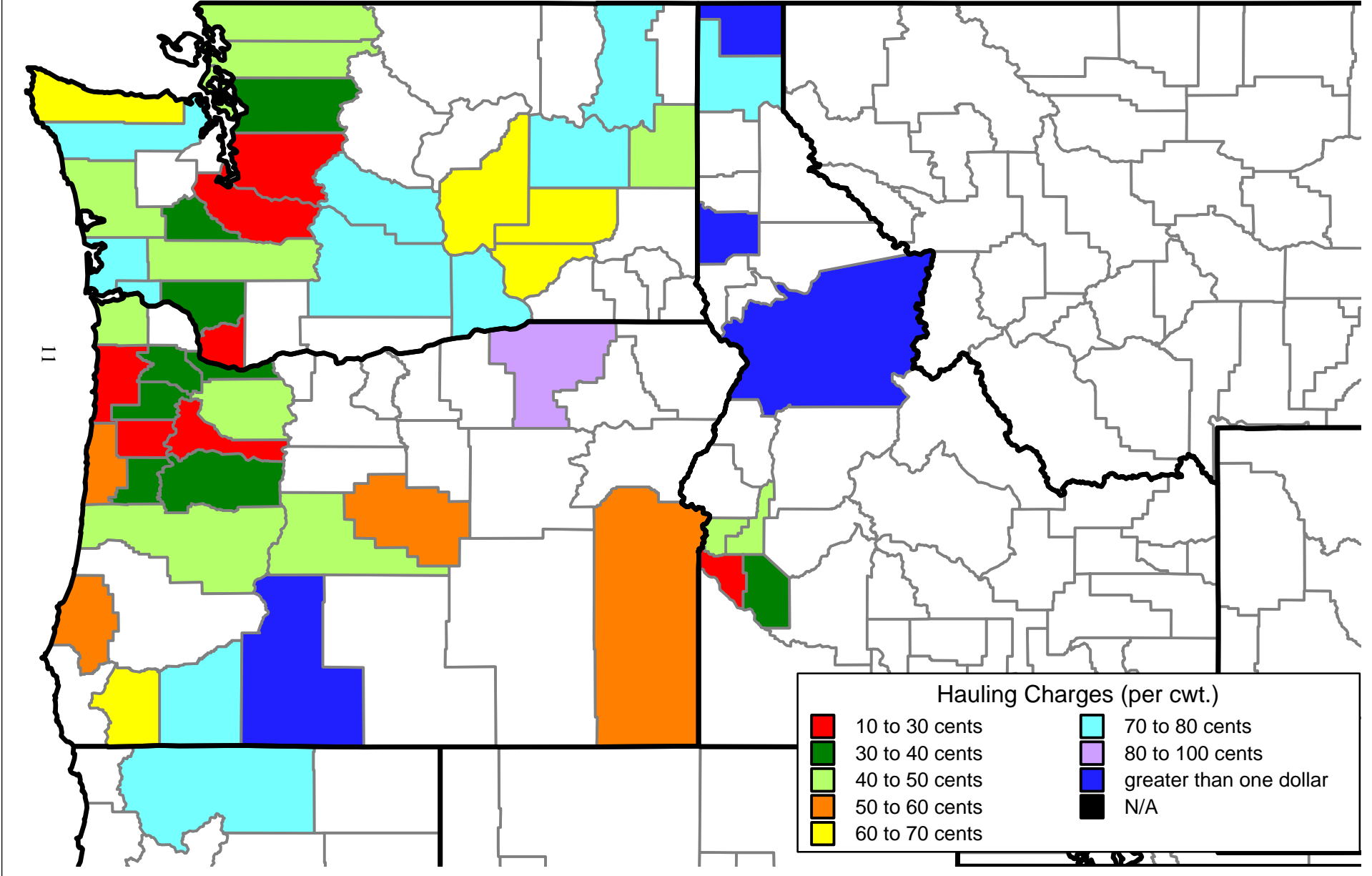


FIGURE A-2
Average Milk Production Per Producer
Pacific Northwest Order: May 2005

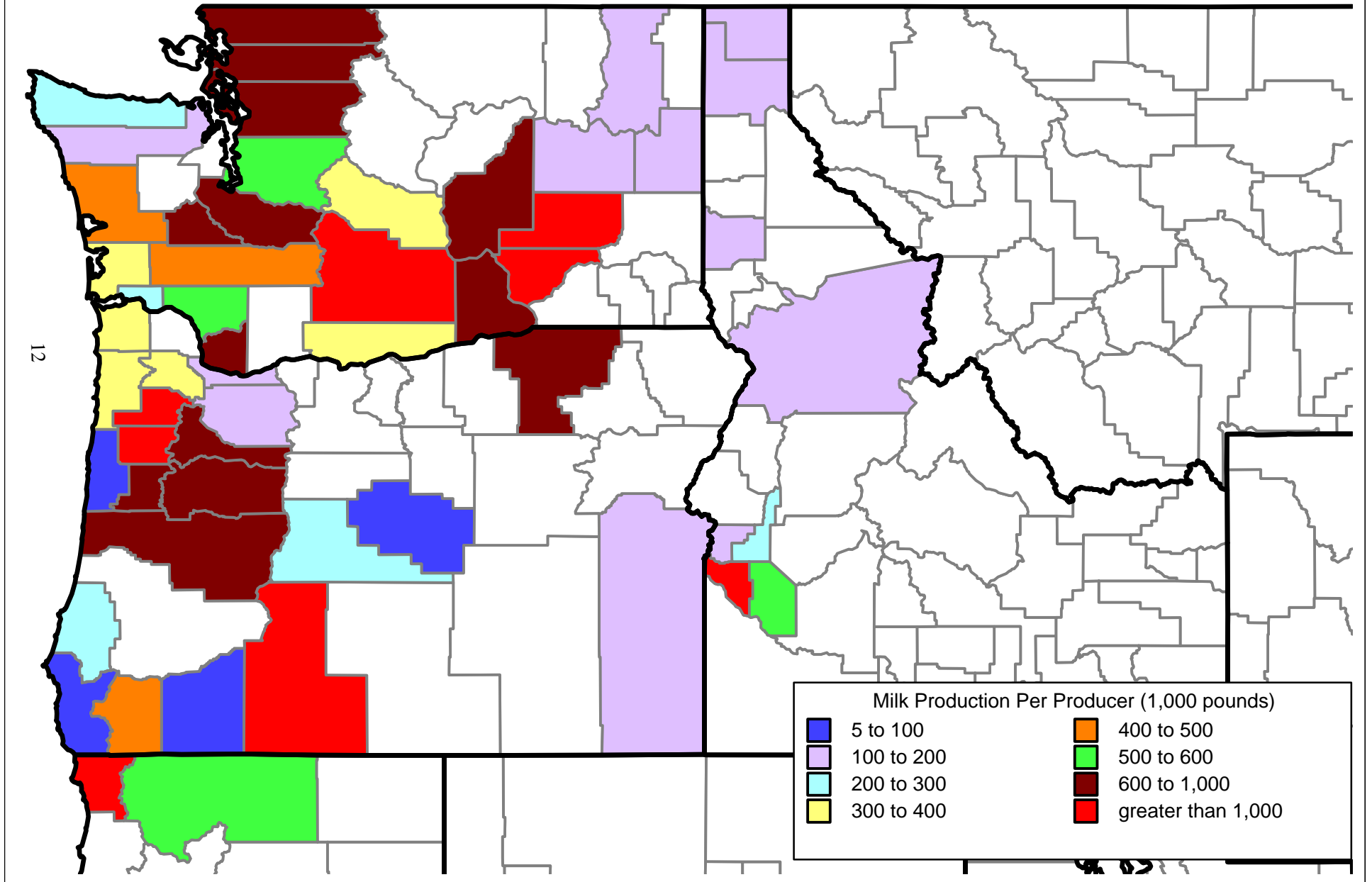


FIGURE A-3
Pacific Northwest Order Marketing Area

