

2008 Hay Market and Export Report Abstract

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Introduction

This abstract presents a summary review of the complete 2008 Hay Market and Export Report. The annual report reviews the Pacific Northwest hay market trends in production and hay value. The term hay in general refers to both alfalfa hay and grass hay combined. As appropriate depending on data availability, hay production and value by type is reported separately. Domestic demand for high quality hay is primarily determined by regional dairies. The hay export market is particularly important for Northwest producers. Japan is the largest export market. The interaction of variable and largely uncontrollable hay growing climatic conditions that directly impacts hay quality and yield, the presence of carryover hay stocks, and domestic and export demand factors creates a dynamic hay market. The 2007 hay year started with low carry-over stocks, creating tight supply conditions. In spite of strong 2006 hay prices and generally good growing conditions there was no supply response. In fact the 2007 USDA projected Pacific Northwest all hay production declined by four percent. Tight supply, strong hay demand and high prices of corn and other alternative feedstuffs pushed 2007 hay prices to record highs.

Pacific Northwest All Hay and Alfalfa Hay Production

Tables 1 and 2 present the preliminary 2007 Washington hay production statistics and historic production trends. According to the USDA National Agricultural Statistics Service, Washington's preliminary estimates of all hay harvested acres increased by 20,000 acres in 2007 over 2006 to 790 thousand acres. However harvested alfalfa hay acreage decreased 10 thousand acres to 430 thousand acres between 2006 and 2007. Preliminary yield estimates are higher in 2007 resulting in increased production in 2007 over 2006, but Washington alfalfa production remains historically low. Over the 10 years of historic alfalfa production reported in Table 2, production in 2006 is the lowest production year which is followed by 2007 with 2,236 thousand tons of production.

Tables 3 to 6 reports similar hay production statistics for Oregon and Idaho. Oregon harvested 50 thousand less all hay production acres. Thirty thousand acres of the decrease was in alfalfa production. Idaho was the only Pacific Northwest state that increased alfalfa production acres. Idaho increased alfalfa production acres by 20 thousand acres in 2007 over 2006.

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Due to strong prices the value of hay production has generally increased annually over that past five years for each of the PNW states. Although the 2007 value of production is not reported by the USDA statistics at the time of writing this report, it is almost certain to increase due to strong monthly hay prices reported throughout 2007.

Tables 7 and 8 summarize the Pacific Northwest all hay and alfalfa hay production trend for all three states. The 2007 PNW all hay production is the lowest reported in the table and 2007 alfalfa hay production is the second lowest reported. Table 9 reports farm hay stocks. The end of the year December 2006 hay stocks were 5,754 tons which was relatively low to start the 2007 year. December 2007 stocks are not available at the time of this report. May 1 2007 hay stocks were 740 thousand tons which is the lowest level it has been since 2002. The data on stocks and production are combined to calculate all hay supply as given in Table 10. The 2007 PNW hay supplies, at 12,419 thousand tons is the tightest supply level since 2001.

Domestic Demand for Hay

A primary factor for domestic hay demand is generated from dairy operations. The Pacific Northwest and Washington in particular produces the highest average milk yield per cow in the United States. The PNW's high quality hay is a principle input needed to achieve this high production level. Table 11 presents the PNW's and California's dairy cow numbers. In 2007, Washington increased its dairy cow inventory by 6,000 head from 237 to 243 thousand cows. Oregon's dairy herd decreased by 3,000 head. Idaho is continuing its rapid dairy cow expansion. Idaho's herd grew by 44 thousand head. And California's dairy cow number growth was 25 thousand head.

Figure 1 illustrates a demand index from dairies' for a state's alfalfa hay supply. The index multiplies the size of the state's dairy herd times the daily per head hay consumption of 35 pounds of hay times a 365 day year. This is a rough estimate of the pounds of hay demanded by each state's dairy industry. The estimated hay consumed is divided by each state's hay production to calculate a demand index which is the proportion of the state's alfalfa hay production consumed by dairies. The alfalfa hay demand index is rough estimate because individual dairies may adjust hay consumption to alternative forages as available which would decrease the index, but dairy replacement heifers are not included in the cow population numbers which would increase the consumption of alfalfa hay, thus increasing the index. Dairies replace between 20 and 30 percent of the milking herd annually. The index is useful to illustrate the PNW relative alfalfa hay demand from dairies.

Figure 1 identifies that Washington's demand index is 0.69. This means that using the definition given above, Washington dairies demand 69 percent of the state's alfalfa production. Idaho has a similar proportion at 66 percent, and Oregon is substantially lower at 40 percent. To show Idaho's increase in alfalfa hay demand due to its increasing dairy population, Idaho's alfalfa hay demand index, using 2000 dairy cow numbers and production is 47 percent. The index does well to illustrate California's relative demand for alfalfa hay. California's alfalfa hay demand index is

1.62. The index illustrates the commonly stated fact that California is an alfalfa deficient state, and that hay has to be imported into California to satisfy its hay demands.

In 2006 low dairy profitability due to low milk prices had a limiting effect on hay price increases, because dairy producers lacked the cash flow to pay for escalating prices. In 2007 milk prices increased greatly and provided dairymen some ability to support increasing hay prices. Figure 2 shows the monthly mailbox milk price for the months available at the time of this report. Milk prices increased from the 2006 average milk price of \$12.60 per cwt to over \$20.00 per cwt in the fall of 2007. These prices represent record high milk prices.

Other livestock, namely cattle and horses demand hay. Tables 12 and 13 present PNW cattle inventories. The cattle and calve inventory has remained fairly steady over the time reported in the table. There are no significant demand trend changes from cattle and calves except to note that there were 30 thousand additional head of cattle and calves in 2007 over 2006. The cattle on feed inventory is harder to evaluate because cattle on feed is a flow inventory and not a static inventory level. Table 13 presents the number of cattle on feed that have gone to market from feedlots with 1,000 head or more capacity. The data shows a steady decline in the number of cattle marketed from feedlots. From 2000 to 2006, the number on fed cattle marketed declined 403 thousand head, or a decline of 32 percent over this period. 2007 is likely to continue this trend. There is not a reported inventory level for horses, but it appears that horses represent a steady to increasing source of hay demand. Horse owners typically have the financial capacity and willingness to pay for high quality two string hay bales.

Export Demand for Hay

The Pacific Rim countries of Japan, Korea and Taiwan are important markets for PNW hay. The Pacific Northwest ports supply about 65 percent of the Pacific Rim forage imports with Pacific Southwest ports supplying the balance. Complete data on 2007 forage exports are not completely available as of the date of this report, but total export data from January to November to Japan and Korea and from January to October to Taiwan are provided in Tables 14 to 16. Total forage exports levels to the Pacific Rim to date are essentially unchanged between 2006 and 2007. Combined forage exports to the Pacific Rim countries for 2006 was 3.32 million metric tons and for 2007 was 3.27 million metric tons. The 2007 Pacific Rim forage export levels are essentially 99 percent of the level of 2006 export levels. Exports to Japan declined 178 thousand metric tons, but total forage exports to Korea increased 132 thousand metric tons. The Japanese milk price was low in 2007 due to an oversupply of Japanese produced milk softening its demand for hay. The decline in exports to Japan represents a relatively small change, but the increase in exports to Korea was a relatively large increase for Korea. The year to date 2006 to 2007 forage exports increase to Korea was almost a 20 percent increase in forage exports, and is the highest tonnage of forage exports to Korea on record. The USA supplied most of the increase in the exports to Korea. Overall, the USA supplies 75 percent of the forage exports to the Pacific Rim Countries.

Hay Price Review

Washington's average monthly alfalfa prices for the last 10 years are shown in Table 17. In general, there is a trend for prices to be highest during the months of May, June, and July. However starting in 2006, alfalfa hay prices have generally been increasing on monthly basis. For Washington in 2007, hay prices started the year at \$125 dollars per ton and ended the year at \$150 dollars per ton. This is the highest USDA average alfalfa price on record for Washington. Table 18 provides monthly prices for California and the PNW states. California prices are about \$20 per ton on average higher than Washington prices. Oregon prices are higher than Washington and Idaho's prices. This is probably because of Oregon's proximity to California and California's excess demand for hay.

2008 Hay Acreage and Price Outlook

Tight supplies and strong demand will continue to pressure hay prices. Milk prices are expected to remain strong for 2008 due primarily to increasing exports of non-fat dry milk. With high milk prices, dairies will at least maintain herd levels and there will probably be some herd expansion in the PNW. Idaho has the fastest growing dairy cow herd in the Nation and small increases in California's herd represent a large number of cows.

Due to strong commodity prices from primarily the increased demand for corn from ethanol, there is likely to be limited hay supply expansion. Expanding ethanol plants will demand even more corn in 2008 over 2007. Farmers examining their 2008 crop planting options are looking at high prices for corn, soybeans, wheat and barley. In some cases they are able to double crop these commodities, which provide greater profitability in comparison to establishing a hay crop. In some cases dryland hay may be converted to dryland grain crops to take advantage of high wheat and barley prices. The inability to establish alfalfa using the roundup ready alfalfa seed variety due to export restrictions and the injunction against its use further limits the appeal of establishing expanded hay acreage. California decreased its alfalfa production acreage by 100,000 acres in 2007 and is expected to further decrease its irrigated hay acreage in 2008 due uncertain and decreasing water availability to agricultural crop operations. Instead of expanding hay acreage in response to record high hay prices, it is more likely that hay acreage will decline in 2008.

Exports are likely to remain steady based on Pacific Rim forage demand factors and the value of the dollar that is expected to remain weak due to economic and political factors. One item to be aware of is China may emerge as a forage export destination. China's expanding economy and its expanding demand for nutrition, in particular dairy products, may result in the opportunity to export forages to China. The USDA has sent dairy production technology teams to China and has produced a report citing China's potential as a forage export destination. When you consider, the potential to back haul empty ocean freighters to China with forage exports, the emergence of China as an export destination seems likely.

(<http://www.fas.usda.gov/info/fasworldwide/2007/09-2007/ChinaAlfalfaMarket.htm>)

Hay prices are likely to continue on their record setting pace for 2008. All demand and supply factors are pushing price up. If 2008 is similar to 2006 and 2007, the 2008 alfalfa hay price in Washington will start the year at \$150 per ton and increase from that point. In 2006, alfalfa hay price increased \$15 per ton over the year, and in 2007 the increase over the year was \$25 per ton. In 2008, the price will likely increase at a greater rate. In 2007 the weather was generally good for hay production which benefited dryland production supply. Hopefully 2008 will repeat with good weather for dryland hay production and ease some of the upward pressure on hay prices for livestock producers.

Table 1: Washington All Hay Production

Year	Harvested	Yield	Production	Price per Unit	Value of Production
	acres - thousand	tons	1000 tons	dollars/ton	1000 dollars
1997	780	3.95	3,084	\$ 115.00	\$ 361,824
1998	750	4.21	3,156	\$ 97.00	\$ 312,588
1999	740	4.13	3,059	\$ 98.00	\$ 307,027
2000	780	4.17	3,249	\$ 107.00	\$ 355,261
2001	790	3.91	3,088	\$ 120.00	\$ 375,328
2002	820	4.07	3,336	\$ 111.00	\$ 375,366
2003	710	4.45	3,603	\$ 93.50	\$ 343,610
2004	790	4.29	3,392	\$ 108.00	\$ 371,040
2005	740	4.34	3,210	\$ 113.90	\$ 365,610
2006	770	4.04	3,113	\$ 127.00	\$ 395,824
2007*	790	4.21	3,286		

Table 2: Washington Alfalfa Hay Production

Year	Harvested	Yield	Production	Price per Unit	Value of Production
	acres - thousand	tons	1000 tons	dollars/ton	1000 dollars
1997	480	4.80	2,304	\$ 111.00	\$ 255,744
1998	480	5.00	2,400	\$ 91.50	\$ 219,600
1999	470	4.90	2,303	\$ 89.00	\$ 204,967
2000	470	5.00	2,350	\$ 98.00	\$ 230,300
2001	470	4.80	2,256	\$ 114.00	\$ 257,184
2002	510	4.90	2,499	\$ 107.00	\$ 267,393
2003	510	5.30	2,703	\$ 86.50	\$ 233,810
2004	480	5.00	2,400	\$ 105.00	\$ 252,000
2005	450	5.20	2,340	\$ 112.00	\$ 262,080
2006	440	4.90	2,156	\$ 125.00	\$ 269,500
2007*	430	5.20	2,236		

*Projected

Source: USDA-NASS

[http://www.nass.usda.gov/Statistics by State/Washington/Publications/Agri-facts/agri2feb.pdf](http://www.nass.usda.gov/Statistics%20by%20State/Washington/Publications/Agri-facts/agri2feb.pdf)

Table 3: Oregon All Hay Production

Year	Harvested	Yield	Production	Price per Unit	Value of Production
	acres - thousand	tons	1000 tons	dollars/ton	1000 dollars
1997	1035	3.16	3,266	\$ 117.00	\$ 361,020
1998	970	3.48	3,374	\$ 104.00	\$ 337,698
1999	1100	2.92	3,208	\$ 92.00	\$ 286,208
2000	1080	2.79	3,018	\$ 94.50	\$ 278,772
2001	1025	2.98	3,052	\$ 112.00	\$ 333,626
2002	1115	3.13	3,493	\$ 100.00	\$ 348,019
2003	1100	3.25	3,572	\$ 88.50	\$ 313,262
2004	1130	3.21	3,624	\$ 105.00	\$ 371,892
2005	1000	3.14	3,140	\$ 114.00	\$ 352,580
2006	1050	3.10	3,256	\$ 130.00	\$ 411,840
2007*	1,000	3.10	3,100		

Table 4: Oregon Alfalfa Hay Production

Year	Harvested	Yield	Production	Price per Unit	Value of Production
	acres - thousand	tons	1000 tons	dollars/ton	1000 dollars
1997	420	4.70	1,974	\$ 123.00	\$ 242,802
1998	400	4.80	1,920	\$ 110.00	\$ 211,200
1999	420	4.40	1,848	\$ 96.00	\$ 177,408
2000	390	4.20	1,638	\$ 99.00	\$ 162,162
2001	460	4.30	1,978	\$ 116.00	\$ 229,448
2002	495	4.30	2,129	\$ 101.00	\$ 215,029
2003	480	4.60	2,208	\$ 94.00	\$ 207,552
2004	480	4.30	2,064	\$ 112.00	\$ 231,168
2005	400	4.40	1,760	\$ 121.00	\$ 212,960
2006	430	4.40	1,892	\$ 131.00	\$ 244,068
2007*	400	4.60	1,840		

*Projected

Source: USDA-NASS

<http://www.nass.usda.gov/Statistics by State/Oregon/Publications/Field Crop Report>

http://www.nass.usda.gov:8080/QuickStats/PullData_US.jsp

Table 5: Idaho All Hay Production

Year	Harvested	Yield	Production	Price per Unit	Value of Production
	acres - thousand	tons	1000 tons	dollars/ton	1000 dollars
1997	1300	3.64	4,730	\$ 105.00	\$ 483,110
1998	1400	3.87	5,420	\$ 83.00	\$ 441,480
1999	1430	3.59	5,132	\$ 83.00	\$ 417,788
2000	1390	3.81	5,292	\$ 94.50	\$ 491,547
2001	1420	3.48	4,938	\$ 116.00	\$ 565,014
2002	1490	3.55	5,288	\$ 95.00	\$ 496,612
2003	1500	3.30	4,950	\$ 87.50	\$ 426,855
2004	1480	3.61	5,350	\$ 106.00	\$ 552,600
2005	1410	3.82	5,382	\$ 111.00	\$ 586,782
2006*	1520	3.76	5,720	\$ 118.00	\$ 666,051
2007*	1500	3.53	5,293		

Table 6: Idaho Alfalfa Hay Production

Year	Harvested	Yield	Production	Price per Unit	Value of Production
	acres - thousand	tons	1000 tons	dollars/ton	1000 dollars
1997	1000	4.10	4,100	\$ 106.00	\$ 434,600
1998	1100	4.30	4,730	\$ 84.00	\$ 397,320
1999	1150	4.00	4,600	\$ 84.00	\$ 386,400
2000	1130	4.20	4,746	\$ 95.00	\$ 450,870
2001	1120	3.90	4,368	\$ 118.00	\$ 515,424
2002	1170	4.00	4,680	\$ 96.50	\$ 451,620
2003	1200	3.70	4,440	\$ 88.50	\$ 392,940
2004	1180	4.00	4,720	\$ 108.00	\$ 509,760
2005	1140	4.20	4,788	\$ 113.00	\$ 536,256
2006	1180	4.30	5,074	\$ 120.00	\$ 608,880
2007*	1200	4.20	5,040		

*Projected

Source: USDA-NASS

<http://www.nass.usda.gov/Statistics by State/Idaho/Publications/Current Estimates>

<http://www.nass.usda.gov/Statistics by State/Idaho/Publications/Agriculture in Idaho/>

Table 7: PNW All Hay Production

Year	State	Harvested	Yield	Production	Value of Production
		acres - thousand	tons	1000 tons	1000 dollars
2003	ID	1,500	3.30	4,950	426,855
2003	OR	1,100	3.25	3,572	313,262
2003	WA	710	4.45	3,603	343,610
2003	PNW	3,310	3.66	12,125	1,083,727
2004	ID	1,480	3.61	5,350	552,600
2004	OR	1,130	3.21	3,624	371,892
2004	WA	790	4.29	3,392	371,040
2004	PNW	3,400	3.64	12,366	1,295,532
2005	ID	1,410	3.82	5,382	586,782
2005	OR	1,000	3.14	3,140	352,580
2005	WA	740	4.34	3,210	365,610
2005	PNW	3,150	3.72	11,732	1,304,972
2006	ID	1,520	3.76	5,720	666,051
2006	OR	1,050	3.10	3,256	411,840
2006	WA	770	4.04	3,113	395,824
2006	PNW	3,340	3.62	12,089	1,473,715
2007*	ID	1,500	3.53	5,293	na
2007*	OR	1,000	3.10	3,100	na
2007*	WA	790	4.21	3,286	na
2007*	PNW	3,290	3.55	11,679	na

Source: USDA-NASS

*Projected

Table 8: PNW Alfalfa Hay Production

Year	State	Harvested	Yield	Production	Value of Production
		acres - thousand	tons	1000 tons	1000 dollars
2003	ID	1,200	3.70	4,440	392,940
2003	OR	480	4.60	2,208	207,552
2003	WA	510	5.30	2,703	233,810
2003	PNW	2,190	4.27	9,351	834,302
2004	ID	1,180	4.00	4,720	509,760
2004	OR	480	4.30	2,064	231,168
2004	WA	480	5.00	2,400	252,000
2004	PNW	2,140	4.29	9,184	992,928
2005	ID	1,140	4.20	4,788	536,256
2005	OR	400	4.40	1,760	212,960
2005	WA	450	5.20	2,340	262,080
2005	PNW	1,990	4.47	8,888	1,011,296
2006	ID	1,180	4.30	5,074	608,880
2006	OR	430	4.40	1,892	244,068
2006	WA	440	4.90	2,156	269,500
2006	PNW	2,050	4.45	9,122	1,122,448
2007*	ID	1,200	4.20	5,040	na
2007*	OR	400	4.60	1,840	na
2007*	WA	430	5.20	2,236	na
2007*	PNW	2,030	4.52	9,116	na

Source: USDA-NASS

*Projected

Table 9: Washington, Oregon and Idaho on Farm Hay Stocks

Year	Washington		Oregon		Idaho		PNW	
	May 1	Dec 1	May 1	Dec 1	May 1	Dec 1	May 1	Dec 1
	1000 tons							
2000	165	1303	128	1766	257	2790	550	5859
2001	195	1513	241	1901	258	2568	694	5982
2002	170	1600	183	2550	444	2824	797	6974
2003	285	1620	340	2357	635	2772	1260	6749
2004	470	1560	371	2366	445	2782	1286	6708
2005	322	1475	362	1790	535	2260	1219	5525
2006	250	1339	210	1840	375	2575	835	5754
2007	240	na	180	na	320	na	740	na

Source: USDA-NASS

[http://www.nass.usda.gov/Statistics by State/Washington/Publications/Agri-facts/agri2may.pdf](http://www.nass.usda.gov/Statistics_by_State/Washington/Publications/Agri-facts/agri2may.pdf)

[http://www.nass.usda.gov/Statistics by State/Washington/Historic Data/fieldcrops/allhay.pdf](http://www.nass.usda.gov/Statistics_by_State/Washington/Historic_Data/fieldcrops/allhay.pdf)

Table 10: PNW All Hay Supplies

Year	Washington			Oregon			Idaho			PNW		
	May 1	Production	Supply	May 1	Production	Supply	May 1	Production	Supply	May 1	Production	Supply
1000 tons												
1995	139	3278	3417	85	3300	3385	222	5080	5302	446	11,658	12,104
1996	426	3140	3566	264	3244	3508	660	4760	5420	1350	11,144	12,494
1997	283	3084	3367	97	3266	3363	286	4730	5016	666	11,080	11,746
1998	308	3156	3464	621	3374	3995	520	5420	5940	1449	11,950	13,399
1999	410	3059	3469	135	3208	3343	759	5132	5891	1304	11,399	12,703
2000	165	3249	3414	128	3018	3146	257	5292	5549	550	11,559	12,109
2001	195	3088	3283	241	3052	3293	258	4938	5196	694	11,078	11,772
2002	170	3336	3506	183	3493	3676	444	5288	5732	797	12,117	12,914
2003	285	3603	3888	340	3572	3912	635	4950	5585	1260	12,125	13,385
2004	470	3392	3862	371	3624	3995	445	5350	5795	1286	12,366	13,652
2005	322	3210	3532	362	3140	3502	535	5382	5917	1219	11,732	12,951
2006	250	3349	3599	210	3456	3666	375	5702	6077	835	12,507	13,342
2007*	240	3286	3526	180	3100	3280	320	5293	5613	740	11,679	12,419

Source: USDA-NASS

*Projected

http://www.nass.usda.gov/Statistics_by_State/Washington/Publications/Agri-facts/agri2may.pdf

Table 11: Dairy Cow Numbers

Year	Washington	Idaho	Oregon	California
1996	264	256	93	1349
1997	253	272	90	1391
1998	248	292	89	1420
1999	247	318	89	1465
2000	247	347	90	1526
2001	247	366	95	1589
2002	247	388	114	1648
2003	245	404	119	1688
2004	237	424	120	1725
2005	241	455	121	1755
2006	237	478	118	1780
2007	243	522	115	1805

http://www.nass.usda.gov/Statistics_by_State/California/Publications/Livestock/200710lvsrv.pdf

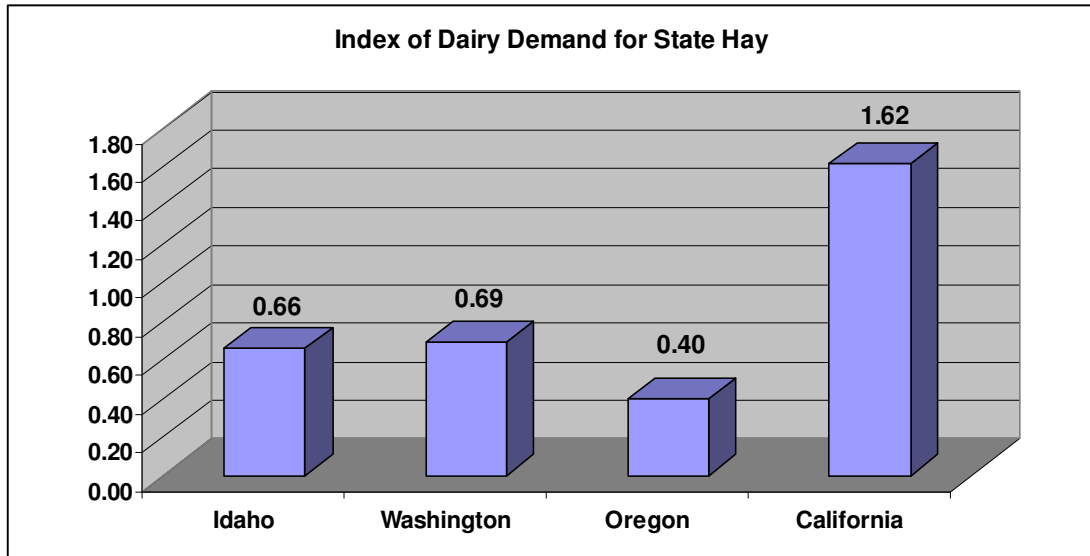


Figure 1: Dairy Demand Index for Alfalfa Hay by State

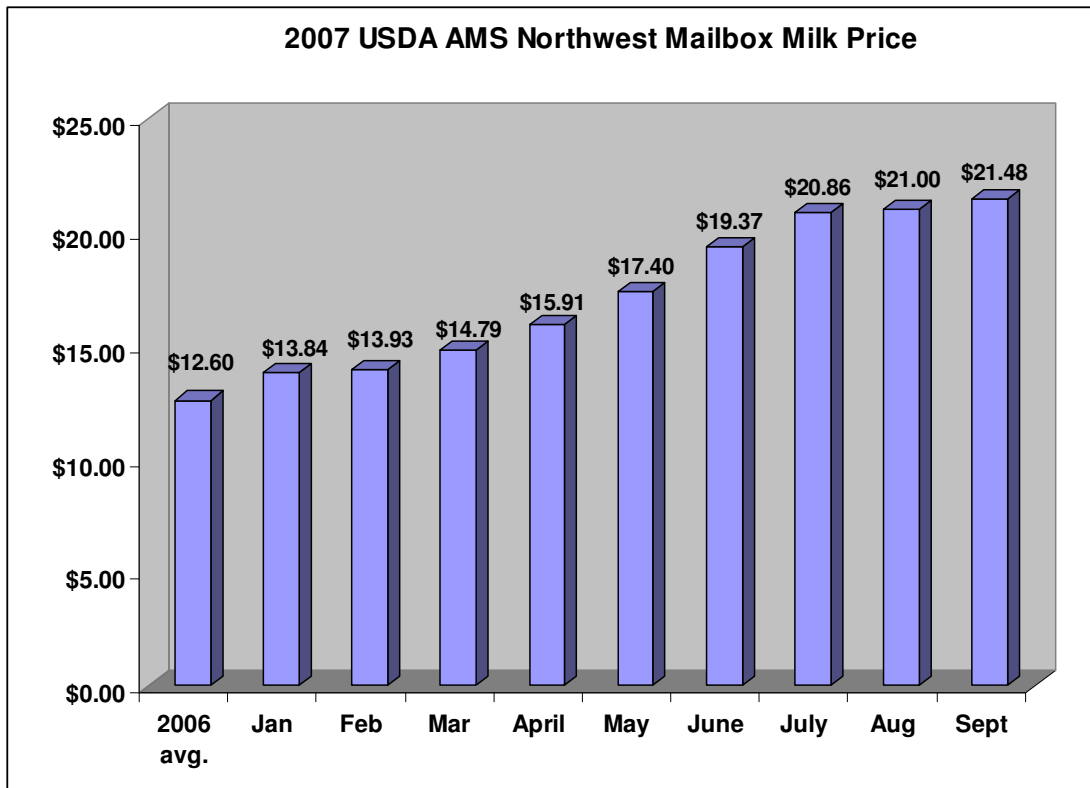


Figure 2. 2007 Dairy Mailbox Milk Price (September last month available).

Table 12: Cattle and Calves All Inventory January 1 in the PNW

	Washington	Oregon	Idaho	PNW
Year	1000 Head			
2000	1,210	1,450	1,950	4,610
2001	1,180	1,360	1,960	4,500
2002	1,130	1,400	1,990	4,520
2003	1,100	1,360	2,000	4,460
2004	1,120	1,440	2,000	4,560
2005	1,080	1,430	2,060	4,570
2006	1,100	1,420	2,110	4,630
2007	1,140	1,340	2,180	4,660

Source: USDA-NASS

http://www.nass.usda.gov/QuickStats/PullData_US.jsp

**Table 13: Cattle on Feed Annual Marketings
(1,000 head capacity feedlots)**

	Washington	Oregon	Idaho	PNW
Year	1000 Head			
2000	560	na	700	1,260
2001	587	na	760	1,347
2002	508	na	726	1,234
2003	443	na	707	1,150
2004	423	na	640	1,063
2005	377	na	616	993
2006	315	na	542	857
2007	Na	na	na	na

Source: USDA-NASS

http://www.nass.usda.gov/QuickStats/PullData_US.jsp

**Table 14: Japan Alfalfa Cube and Baled Hay Imports
January to November**

Origin	Metric Tons							
	2000	2001	2002	2003	2004	2005	2006	2007
USA	1,654,204	1,634,189	1,634,544	1,921,010	1,676,372	1,714,021	1,671,183	1,638,634
CHINA	16,230	414	164	4,862	4,824	2,985	2,907	1,147
AUSTRALIA	168,686	183,094	271,353	329,754	391,230	452,565	456,762	338,264
CANADA	267,124	284,228	268,662	205,748	311,482	267,191	305,271	276,577
OTHERS	15,725	14,727	14,300	11,264	8,105	7,921	14,053	17,059
TOTAL	2,121,969	2,116,652	2,189,023	2,472,638	2,392,013	2,444,683	2,450,176	2,271,681

Source: Japan Customs

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**Table 15: Korea Alfalfa Meal and Pellets and All Baled Hay Imports
January to November**

Origin	Metric Tons							
	2000	2001	2002	2003	2004	2005	2006	2007
USA	336,703	348,683	420,284	445,048	446,918	509,315	543,478	664,264
CHINA	23,860	1,795	12,223	52,689	15,264	37,741	29,115	40,214
CANADA	111,327	102,556	41,077	9,602	119,396	39,315	42,856	37,483
AUSTRALIA	2,728	11,557	40,525	6,288	32,748	46,501	55,792	56,451
SPAIN	0	5,764	10,592	3,706	0	1,046	643	2,117
OTHERS	3,075	2,228	10,035	2,818	2,317	1,385	737	4,286
TOTAL	477,693	472,583	534,736	520,151	616,643	635,303	672,621	804,815

Source: Korea Trade Statistics

Prepared by William T. W. Woodward, Dean of Agriculture Education, Research and Development, Department of Agriculture, Columbia Basin College, 2600 North 20th Avenue, Pasco, WA 99301 Phone: 509-547-0511 ext. 2915

**Table 16: Taiwan Total Forage Imports
January to October**

Origin	Metric Tons							
	2000	2001	2002	2003	2004	2005	2006	2007
USA	149,055	158,919	129,102	147,610	145,693	151,020	160,368	155,558
CANADA	51,837	30,012	23,145	20,393	19,236	20,689	17,927	25,805
AUSTRALIA	67,621	22,636	31,899	12,317	78,054	21,481	21,289	16,118
OTHERS	232	2,390	3,222	1,364	85	1,254	1,654	708
TOTAL	268,745	213,957	187,368	181,684	243,068	194,444	201,238	198,189

Source: Directorate General of Customs, Ministry of Finance, ROC
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Table 17: Washington Alfalfa Monthly Average Prices

Year	Monthly Prices											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Dollars/Ton												
1996	99	95	98	98	108	112	111	106	108	109	107	113
1997	112	116	110	110	112	110	114	113	116	108	114	110
1998	114	109	100	108	101	103	97	94	91	91	86	88
1999	92	84	74	77	90	95	89	84	86	89	88	87
2000	84	88	89	90	92	101	98	98	96	93	98	95
2001	94	97	99	97	105	120	115	112	114	110	110	112
2002	115	117	115	115	116	115	108	106	106	103	103	104
2003	103	103	103	102	105	113	100	95	90	90	75	85
2004	85	83	80	80	82	90	100	100	110	120	115	105
2005	105	100	100	100	100	110	115	110	110	115	115	115
2006	110	110	110	115	115	120	120	125	130	130	130	125
2007	125	130	130	130	130	140	140	140	140	145	150	150

Source: USDA-NASS

[http://www.nass.usda.gov/Statistics by State/Washington/Historic Data/fieldcrops/hayalfp rc.pdf](http://www.nass.usda.gov/Statistics%20by%20State/Washington/Historic%20Data/fieldcrops/hayalfp rc.pdf)

[http://www.nass.usda.gov/Statistics by State/Washington/Publications/Agri-facts](http://www.nass.usda.gov/Statistics%20by%20State/Washington/Publications/Agri-facts)

Table 18: 2007 PNW and California Monthly Alfalfa Prices

Year	Monthly Prices											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Dollars/Ton												
CA	125	135	150	150	164	166	162	158	156	166	174	170
ID	116	118	121	124	120	140	140	140	137	143	148	142
OR	131	132	135	138	144	148	151	145	145	149	153	159
WA	125	130	125	130	130	140	140	140	140	145	150	150

Source: USDA-NASS

[http://www.nass.usda.gov/Statistics by State](http://www.nass.usda.gov/Statistics%20by%20State)