

## Export of Forage Products to Japan and Korea

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### ABSTRACT

Exports are becoming an important market for the Western United States forage producer. Forage products exported are: alfalfa hay and cubes, timothy hay, oat hay, sudangrass hay, and perennial ryegrass and Kentucky bluegrass straw. Recently, demand for forage products from Japan is playing an increasing role on West Coast markets. In 1993, Japan imported 793,926 metric tons of alfalfa hay cubes. The United States supplies approximately 77% of these alfalfa cubes and Canada about 21%. Baled hay imports for Japan totaled 1,244,616 metric tons in 1993. Eighty-eight percent of these hay products came from the United States. Total hay and cube imports for Japan in 1993 totaled 2.038 million metric tons. The United States shipped approximately 1.717 million metric tons or 84% of Japan's hay and cube imports that year. The United States supplied over 74 percent of Japan's total forage imports in (hay, cubes, pellets) of 2,318,172 metric tons in 1993. The Korean market will develop slowly and uniformly. Reasons for the slow development are high costs, tariffs, and taxes.

**KEY WORDS:** Exports, Hay, Cubes, Japan, Korea

Exports are becoming an important market for the Western United States forage producer. Forage products exported are: alfalfa hay and cubes, timothy hay, oat hay, sudangrass hay, and perennial ryegrass and Kentucky bluegrass straw.

Demand for forage products from Japan is playing an increasing role on West Coast markets, especially in the Pacific Northwest (PNW). In 1993, Japan imported 793,926 metric tons (mt) of alfalfa hay cubes (Table 1). The United States supplies approximately 77% of these alfalfa cubes and Canada about 21%. Baled hay imports for Japan totaled 1,244,616 mt in 1993 (Table 2). Approximately 88% of these hay products came from the United States. Total hay & cube imports for Japan in 1993 totaled 2.038 million metric tons (mmt). The United States shipped approximately 1.717 mmt or 84% of Japan's hay & cube imports that year. The United States is not an exporter of alfalfa pellets. Canada supplied over 99% of the 279,630 mt that Japan imported in 1993 (Table 3). The United States supplied over 74% of Japan's total forage imports (hay, cubes, pellets) of 2,318,172 mt in 1993.

The United States Department of Commerce west coast export data differs somewhat from the Japanese import data. Generally, import data from Japan gives a better indication of total hay and cube exports from the United States which were 1,889,479 tons in 1993. The significance of the Department of Commerce data is the tonnage exported by geographical location. Department of Commerce data indicate that the PNW share of these exports is about 55% or 1,208,726 tons in 1993. The Pacific Southwest (primarily California) share of these exports to Japan is approximately 45% or 995,138 tons. Also, forage products routinely come from Nevada, Utah, and Arizona to California to be exported. In 1993 the PSW produced 12,714,498 tons of hay. Forage exports represented about 7.8% of the total hay production in this area. During the same period, the PNW

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produced 10,745,000 tons of hay. Forage exports represented about 11.3% of total hay production in Washington, Oregon, and Idaho. Many of these exports are coming from the state of Washington (Tables 4 and 5). In 1993, approximately 569,000 tons of forages were exported from Washington. Hay production in Washington totaled 2,835,000 tons in 1993. While PNW exports in 1993 only represented 11.3% of total hay production, exports from Washington state represented 20.1%. Forage exports the past seven years have helped support and stabilize forage prices in the PNW even with increasing acreage.

Forage products are shipped to Japan from the United States primarily in 40 foot cargo containers. Canada has been shipping some alfalfa cubes in partial cargo holds of ships (Break-Bulk). This has led to dramatic savings in shipping somewhat at the expense of quality. But, the savings in transportation has helped Canada increase its market share of cube exports to Japan. Bulk shipments of cubes have also been made from Washington ports recently. About 90% of the alfalfa cubes shipped to Japan are for dairy cows and 10% for beef cows. Dairy cows also take about 60% of baled hays, and the balance would be split evenly between beef cows and horses.

Japan has strict import regulations. Sample containers from shipments are transferred to the Japanese Plant Protection and Quarantine (PPQ) yard. If the containers have been fumigated in the United States, PPQ checks for gas residues. If residues are above allowable levels, the containers must then be aerated. Next, PPQ checks for pests and prohibited items. If insects are found, then containers must be fumigated in Japan. Prohibited items include: wheat or barley plants, wheat or barley straw, and any Agropyron grasses. These prohibited items are all hosts for the Hessian fly, which Japan has strict regulations against. If these containers are rejected, then the forage products either have to be destroyed or reshipped back to the United States and/or other destinations. Potentially, this re-shipment can be very expensive to the originator. Soil can also cause some rejections, although this seems to vary by port. Because of these strict import regulations, forage producers need to cooperate with exporters in sending the best quality product possible. Once forage products pass the PPQ process, they then move to market. Cubes are generally unloaded at port warehouses and sacked in 40 Kg or 400 Kg sacks. The 40 Kg sacks are usually loaded on pallets. Baled hay is also sometimes palletized. From warehouses, these forage products move to inland storage or to market. Once forage products are stored or consumed, claims can be received from Japanese buyers against the producer and/or broker. These claims can be potentially very expensive. Claims can be for: lack of quality, misrepresentation of product, foreign matter contamination, condition (moisture/mold damage), or actually be a market claim (price dislocation).

The United States will continue to be a major supplier of forage products to Japan. Baled hay exports have dramatically increased during the past 6 years. Alfalfa cube exports could be threatened by Canada's aggressive cube marketing strategy, lower bulk shipping costs, and subsidized rail transportation from processor to the Port of Vancouver. The PSW & PNW needs to promote forage quality over Canada's.

The Korean market is also starting to develop. The potential size of this market is estimated to be one-quarter to one-third of the Japanese market. This market will develop slowly and uniformly. This slow development is due primarily to cost caused by tariffs and taxes. Table 6 shows Korean alfalfa hay, cube, and pellet imports. In 1993, the United States supplied only 18,742 mt of hay and cubes to Korea. The balance was supplied by Canada. Canada has also supplied all of the alfalfa pellets shipped to Korea. Intense competition between the United States and Canada will continue. The United States needs to promote quality alfalfa cubes over Canadian cubes. Dairymen in Korea need education on the disadvantages of using pellets, mini-cubes, and poorer quality hay. Mini-cubes are actually a large pellet. Companies in Korea also need technical help on efficient handling, bagging, and transportation of cubes.

The Western United States forage industry needs to recognize the importance of exports to the forage economy

of their areas. The PSW & PNW needs to promote quality, consistency of product, and cheaper transportation methods to retain and/or increase their market share in a growing world market.

**TABLE 1**  
**ALFALFA CUBE IMPORTS (JAPAN)**  
Metric Tons

ORIGIN	January - December				
	1989	1990	1991	1992	1993
USA	520,545	555,298	553,853	573,427	614,859
CANADA	150,054	142,623	148,129	175,797	166,904
AUSTRALIA	10,598	14,742	16,824	12,675	8,734
OTHERS	432	711	1,408	1,948	3,429
<b>TOTAL</b>	<b>681,629</b>	<b>713,374</b>	<b>720,214</b>	<b>763,847</b>	<b>793,926</b>

Source: Zen-Noh, Seattle

**TABLE 2**  
**BALED HAY IMPORTS (JAPAN)**  
Metric Tons

	January - December				
	1989	1990	1991	1992	1993
USA	598,683	754,112	905,725	962,898	1,102,849
CHINA	35,821	50,092	60,160	47,449	48,427
AUSTRALIA	30,696	19,640	43,619	46,040	48,930
CANADA	9,585	10,973	25,232	38,366	39,500
OTHERS	4,815	1,854	3,561	4,060	4,860
<b>TOTAL</b>	<b>679,600</b>	<b>836,570</b>	<b>1,038,297</b>	<b>1,098,813</b>	<b>1,244,616</b>

Source: Zen-Noh, Seattle

**TABLE 3**  
**ALFALFA PELLET IMPORTS (JAPAN)**  
Metric Tons

ORIGIN	January - December				
	1989	1990	1991	1992	1993
USA	1,081	2,037	1,381	2,072	1,677
CANADA	129,376	296,065	274,299	292,120	277,341
OTHERS	511	112	—	307	612
<b>TOTAL</b>	<b>260,968</b>	<b>298,214</b>	<b>275,680</b>	<b>294,499</b>	<b>279,630</b>

Source: Zen-Noh, Seattle

**TABLE 4**  
**WASHINGTON ALFALFA CUBE EXPORTS**

<u>Year</u>	<u>Prod. (tons)</u>	<u>Value</u>
1984	88,000	\$11,170,000
1985	82,000	\$10,091,000
1986	159,000	\$17,362,000
1987	154,000	\$16,635,000
1988	242,000	\$30,105,000
1989+	228,000	\$29,640,000
1990+	250,000	\$34,000,000
1991+	215,000	\$25,800,000
1992+	299,000	\$38,870,000
1993+	269,000	\$40,350,000

+Estimated

Source: WA Ag Statistics & industry estimates

**TABLE 5**  
**WASHINGTON ALL HAY EXPORTS**

<u>Year</u>	<u>Prod. (tons)</u>	<u>Value</u>
1984	76,000	\$11,391,000
1985	80,000	\$10,960,000
1986	90,000	\$12,587,000
1987	113,000	\$14,182,000
1988	159,000	\$19,640,000
1989+	137,694	\$18,038,000
1990+	150,000	\$21,000,000
1991+	191,000	\$28,650,000
1992+	205,000	\$35,875,000
1993+	300,000	\$54,000,000

+Estimated

Source: WA Ag Statistics and industry estimates

**TABLE 6**  
**KOREAN ALFALFA IMPORTS**  
Metric Tons

	<u>Pellets</u>	<u>Cube</u>	<u>Hay</u>
1988	5,621	1,806	
1989	40,023	6,740	
1990	40,000	10,720	
1991	38,000	29,000	904
1992	38,000	47,000	4,629
1993	38,000	57,000	5,689

Source: National Hay Ass'n. Export Comm.