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SRD Market Intelligence Brief™ **DRIED MANGOES**

Seasonal Supply & CIF Prices 1988-1990
in Germany, U.K., France and Japan

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This *Market Intelligence Brief* presents a simplified analysis of seasonal supply and CIF prices for dried mangoes in four selected target markets including Germany, the U.K., France and Japan for the three year period from 1988 through 1990.

1. Summary of Average CIF Prices and Annual Supply for all Four Target Markets from 1988 to 1990

Figure 1 summarizes weekly estimated CIF prices and annual supply for dried mango imports in all four of the targeted markets.

Average CIF Prices. The average weekly CIF price for the four target markets varies seasonally over a range from roughly \$1.40 to \$2.40/Kg. U.K. prices are generally the lowest and Japanese generally the highest with German and French prices fluctuating on either side of the four country average line indicated

with heavy black shading in Figure 1. French prices show the widest seasonal variation with relatively strong increases in the mid-year weeks and relatively low prices during the fall period. Though prices appear to be somewhat weaker in the first half of the year, there is no clear season trend.

CIF prices over \$3.00/Kg. and less than \$2.00/Kg. are relatively rare¹, most prices distribute closely on either side of the \$2.00/Kg. average trend line. CIF prices are useful indicators in preliminary analysis but must be used with caution due to potential reporting difficulties.²

Annual Supply Levels. A three year history of total imports in the four target markets is presented in Figure 1. The U.K. is the largest current importer with imports of between 70-80 metric tons per year. Japan is the most widely fluctuating importer with imports in 1990 about 20 tons less than imports for 1988. Total imports by all four countries have been near the 200 metric ton level during the period and there is a relatively stable volume trend evident in Figure 1. All countries higher volumes in 1989 than in either of the other years, though the differences are not large.



DRIED MANGOES Four Market Summary

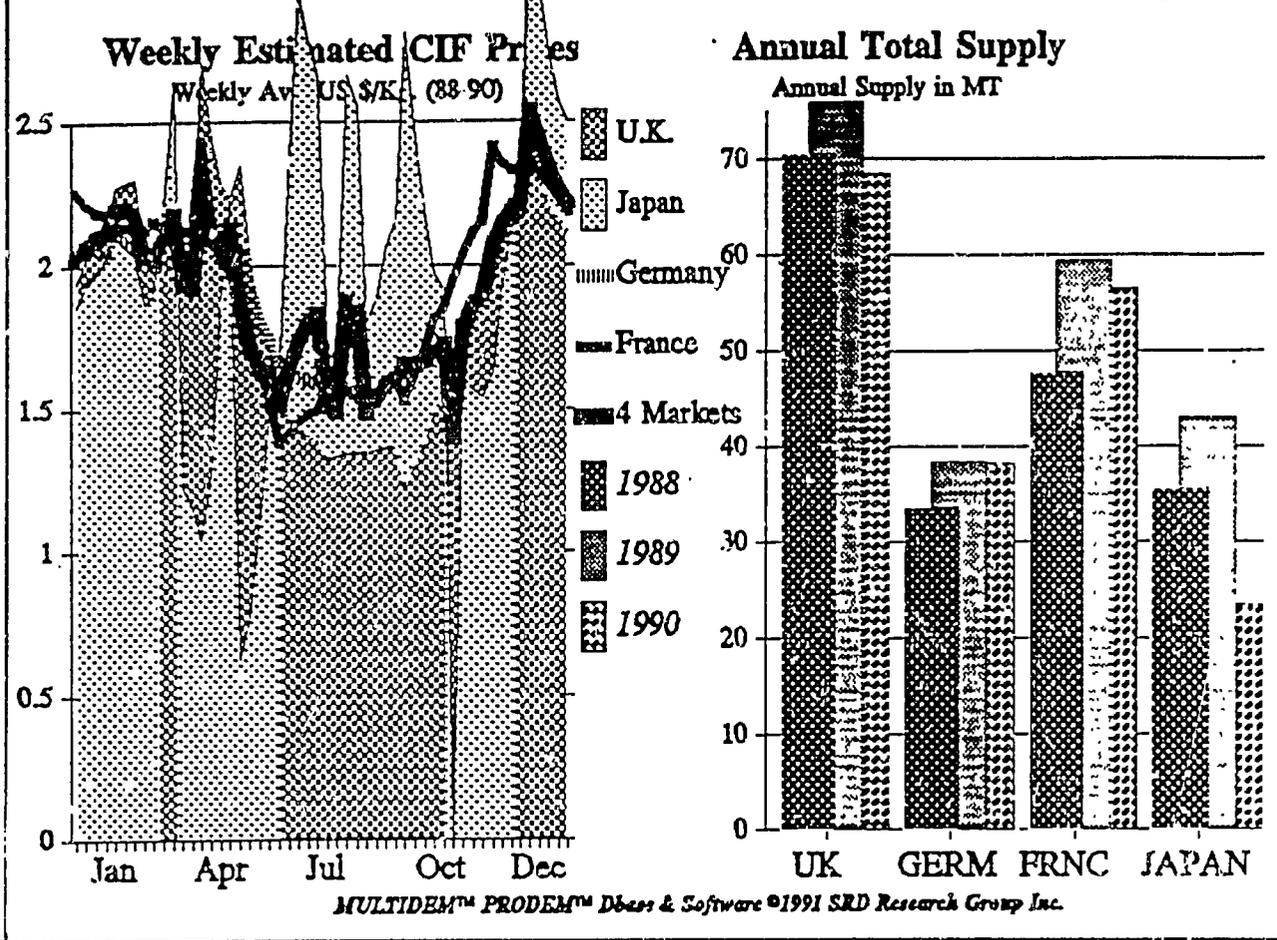


Figure 1: Summary of Average Weekly CIF Prices and Annual Supply for Four Markets

2. Import Supplies of Dried Mangoes

Germany. Figure 2 outlines import volumes in metric tons for dried mangoes in the West German market. The left hand component of Figure 2 outlines weekly estimated import volumes. Weekly import levels fluctuate around .75 metric tons/week and SRD estimates the enlarging German market to be about a .80 ton per week market. Seasonal imports continue to fluctuate, but at higher volumes in 1990. The annual pattern displayed in the right side of Figure 2 indicates an increasing supply trend implying a 30-35% increase in overall consumption per capita from 1988 to 1990³. Annual imports of about 35 tons in 1988 were followed by imports of roughly 38 tons in 1989 and 45 in 1990.

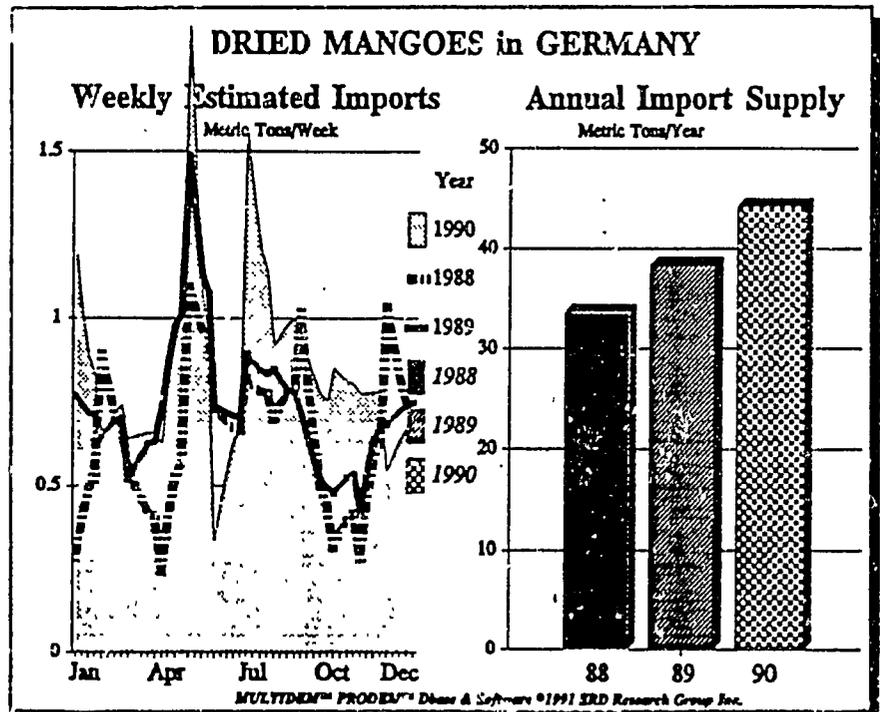


Figure 2: Germany: Weekly & Annual Dried Mango Imports

France. The French import market for dried mangoes is roughly 30% larger than West Germany. French supplies were just under 50 metric tons in 1988 and then rose to about 60 tons in 1989 and 1990. The reasons for the increase in imports in 1990 are not clear but may indicate growth potential in the French market. The seasonal fluctuation of French imports appears to be a continuing process as evidenced by Figure 3. The most identifiable pattern appears to be a rise in imports around April to July during the major mango harvest season, and another smaller rise during the second or minor mango harvest season. Weekly import flows, assuming reasonable inventory maintenance levels, indicate that France is roughly a one ton per week market at current pricing levels, but like Germany there appears to be a slight increasing trend in consumption over time.

United Kingdom. Figure 4 outlines seasonal import patterns and annual trends for the United Kingdom during the three year analysis period from 1988 to 1990. The U.K. is the largest importing country of the four examined. The U.K. also shows the least year to year variation, 1990 imports were almost identical to those of 1988 though slightly less than those of 1989. This market appears to be stable, with the clear majority of the yearly volume imported in the spring and summer months during the major harvest, a trend that appears to be very consistent over the three year period. SRD estimates the U.K. to be a 1.4 MT/week market.

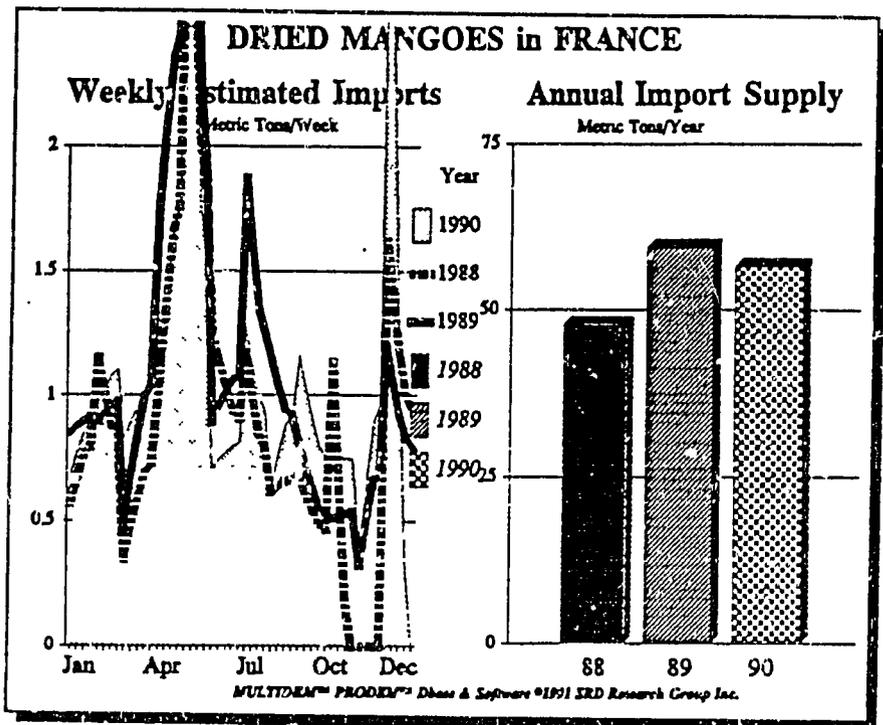


Figure 3: Weekly & Annual Estimated Imports of Dried Mangoes into France 1988-90

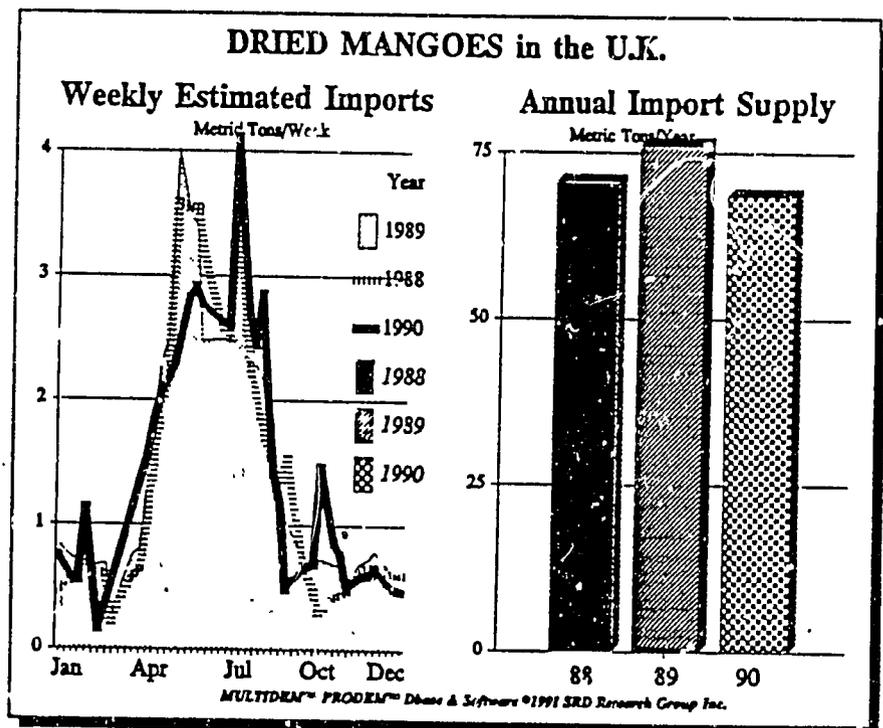


Figure 4: Weekly & Annual Estimated Imports of Dried Mangoes into the U.K. 1988-90

Japan. The Japanese market appears to be the lowest per capita consumer of dried mangoes of the four countries analyzed as illustrated in Figure 5. Annual imports also show a decreasing trend over the three year period analyzed, starting with over 35 tons in 1988 and decreasing to less than 25 by 1990.

Seasonal import patterns show no discernable trend, except that peaks appear to concentrate like the other markets, during the mid year major harvest period. Based on the information contained in this three year period, it would appear that Japan has the capacity to absorb only about .65 tons per week at current pricing levels.

3. Weekly and Annual CIF Prices and Trends.

Germany. Annual prices in US\$ maintained a the most constant picture in Germany among the four countries analyzed. Figure 6 indicates that the German CIF price was very close to \$1.85/Kg. in all three years. 1990 and 1988 were almost identical in terms of yearly average price.

Figure 2 on page 2 shows a roughly 30-35% increase in volume imported in 1990 as compared with 1988 while CIF prices remained very nearly the same. The increasing volumes do not appear to be related to the almost unchanging prices with the tentative conclusion that there is very little price response to shifts in volumes imported. This suggests that the German market is relatively immature and has considerable growth potential without decreasing prices.

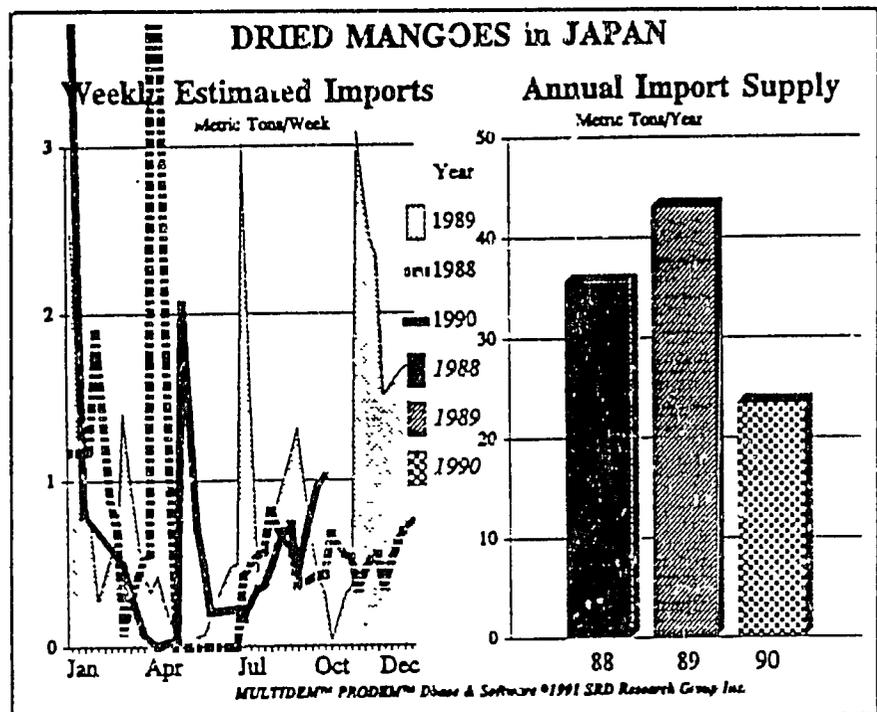


Figure 5: Weekly and Annual Estimated Imports of Dried Mangoes into Japan 1988-1990

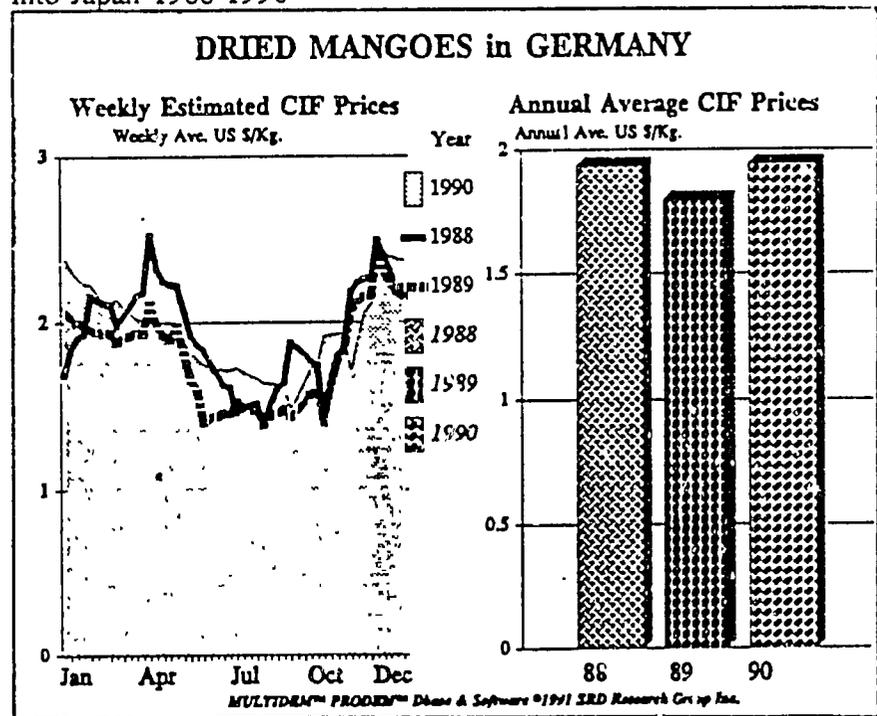


Figure 6: Estimated Weekly & Annual CIF Prices for Dried Mangoes in Germany 1988-90

Average annual prices for Germany exhibit considerable stability, and seasonal fluctuations are fairly uniform. Prices fluctuated between a low of around \$1.50/Kg. to highs around \$2.40/Kg..

France. Figure 7 outlines CIF price patterns for dried mangoes imports into France during the last three years. Two peak price trends are evident, one in the very early spring and another in the last few months of the year. This suggests that prices respond to volumes on a seasonal basis and implies a rather mature market without large volume increase potentials without price reductions. Like Germany, prices were lower in 1989, but very similar in 1988 and 1990. Given the fact that France imported a higher volume of product in 1989 than in the other two years (see Figure 3 page 2) there appears to be a plausible relationship between price and volume supplies. Annual average data reveal this pattern more clearly than seasonal data as can be seen by setting the annual bar charts from Figures 7 and 3 alongside each other.

Seasonal price fluctuations in the case of France appear to be supply driven only part of the year as can be seen by the opposite movements in prices and volumes in the November weeks in Figures 7 and 3. France appears to be at least partially elastic under significant supply shortage pressure. CIF prices in France fluctuate across a moderate range seasonally, from near \$2.50/Kg. during low volume import periods, to roughly \$1.50/Kg. during high volume periods.

United Kingdom. A review of annual volumes and annual average

prices for the three last years for the U.K. suggests that market price is responsive to supply volumes and may be characterized as a mature and reasonably balanced market. Comparison of the annual summary portions of Figures 8 and 4 indicate that a drop in volume of approximately two tons is associated with a price increase of roughly \$1.00/kg. The clear relationship evident in weekly average is less clear but still plausible in annual data.

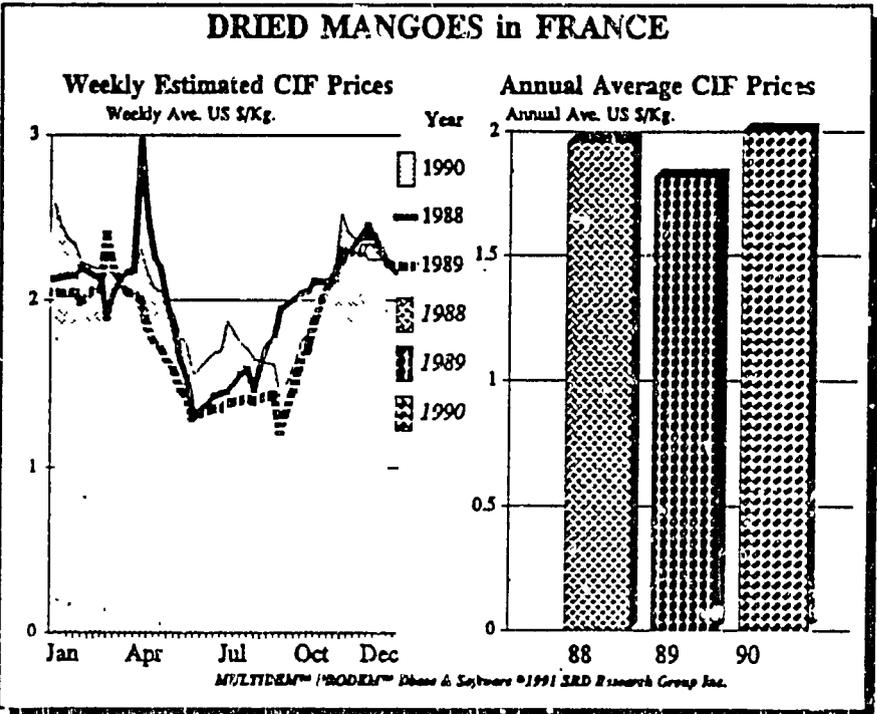


Figure 7: Weekly and Annual Estimated CIF Prices for Dried Mangoes in France 1988-90

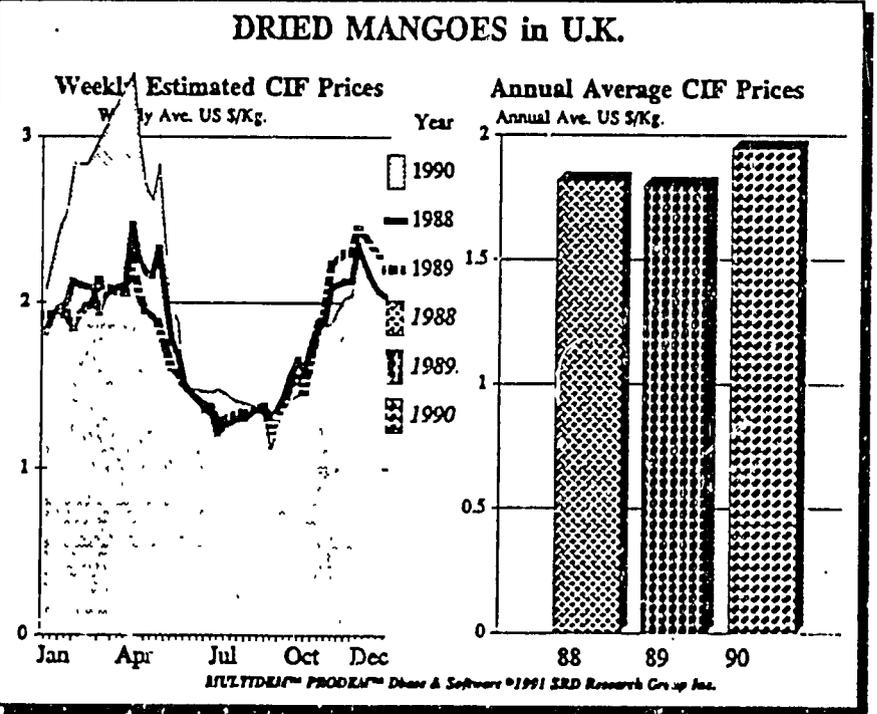


Figure 8: Weekly and Annual Estimated CIF Prices for Dried Mangoes in the U.K.

U.K. prices are very similar to France and Germany averaging near \$1.75 over the period.

Japan. Figure 9 suggests that Japanese CIF prices are not obviously related to volumes. Japanese prices are the highest on the average for the four countries at around \$2.00/Kg.

4. Sri Lankan Costs of Production and Transport and Potential Profitability.

This section is only intended to provide a framework for analysis of costs of production and profitability by comparing some available cost data with the CIF prices included in the earlier sections of this Brief. Based on a review of Sri Lankan farm production budgets, SRD estimates that acceptable drying varieties of mangoes can be produced in Sri Lanka for US\$ 0.03/Kg.. Assuming a weight reduction ratio for dry mangoes of 80%, this would imply a raw product cost of \$0.14/Kg. A review of Sri Lankan data indicated that no commercial drying data are available. Such data would have to be generated as a part of a feasibility study by processing experts. To illustrate how to utilize the data in this Brief in combination with such drying cost data, we assume that the costs of drying are \$0.30/Kg.. Transport costs to the analyzed markets might be in the range of \$0.19/Kg. giving a total cost of \$.63/Kg. Using this figure as a cost basis, it would appear that profit margins would range during most periods of the year in Germany, France and the U.K. over \$1.00/Kg., and in Japan from \$1.10/kg..

5. Bumpers/Lautenberg Amendment Analysis and Recommendation.

The United States is not a significant exporter of mangoes fresh or dried. Furthermore, a review of import statistics of the four analyzed countries fails to reveal any measurable imports of dried mangoes from the U.S. Therefore no Bumpers/Lautenberg issues are raised for the MED project, and SRD recommends that detailed feasibility analysis and support of dried mango exports from Sri Lanka to Europe and Asia proceed.

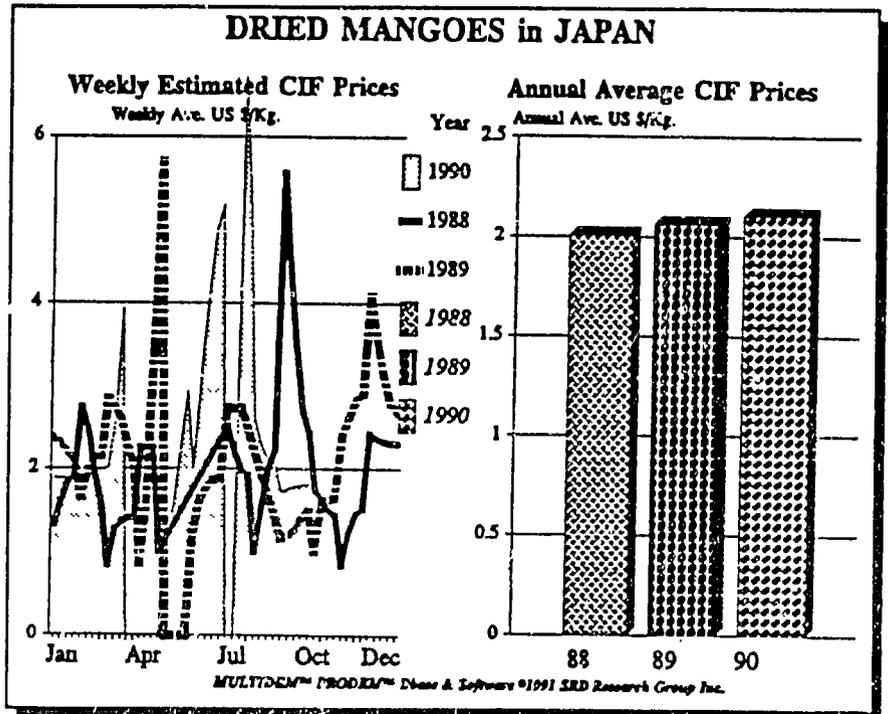


Figure 9: Weekly and Annual Estimated CIF Prices for Dried Mangoes in Japan 1988-90

6. Summary and Conclusions.

Dried mango imports into the four countries analyzed have been approximately 200 metric tons per year during the last three years with no significant increasing or decreasing trend over the period. The largest importer, the U.K., also appears to be a mature market where supply and demand are delicately balanced and price/volume relationships are finely tuned. In such a market increased supplies can only be absorbed if prices decrease. Our very rough analysis of cost data for Sri Lanka suggests that there is considerable room for price competition. The French market also appears to be reasonably mature, though price/volume relationships are much less apparently balanced than in the U.K.. Price competition appears to be the principal avenue to entry for a new exporter. Germany appears to be the least mature market with growth potentials being possible without price reductions. Growth has been steady and apparently insensitive to price shifts. The volumes however are very small, there appears to be only a 5 ton per year increase in imports.

In general the volumes are very small in all markets, and growth potentials do not appear on the face of the data as very promising. If prices could be cut substantially, volume increases might be sufficient to make it a significant business opportunity.

1. Weekly CIF prices are sometimes overly affected by very small volume purchases at very high per unit prices. The very high prices may be the result of the small volumes, high qualities, specialized packaging or other factors not revealed by the data sources. To provide more accurate averages without weighting we have removed the smallest and most extreme of these price/volume occurrences from the graphs in this document.

2./ CIF prices are obtained from official sources and may frequently reflect agreed upon declarations of value between buyer and seller rather than competitively established prices. Since minor processed food products are not often traded in formal wholesale markets, reliable and competitively determined wholesale prices are difficult to obtain. Therefore, CIF prices even with their inherent reporting weakness constitute the best available pricing analysis data.

3. Since dried mangoes are storable, year end inventory changes may invalidate preliminary conclusions about consumption per capita drawn from annual import data.