

SRD Market Intelligence Brief™

DRIED PAPAYAS

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 papayas 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 papaya 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 \$1.50 to \$2.50/Kg. Until 1990, French prices were generally the lowest and Japanese generally the highest with German and U.K. prices fluctuating on either side of the four country average indicated

with heavy black shading in Figure 1. All four countries show wide seasonal variation with relatively strong increases generally in the late summer weeks and relatively low prices during the spring period. Germany is the exception, with high prices in the early spring and lower prices in the early summer.

CIF prices over \$3.00/Kg.¹ and less than \$1.00/Kg. are relatively rare, though in 1990 greater variation occurred. 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. Germany is the largest current importer with imports of between 100-150 metric tons per year. The U.K. is the most widely fluctuating importer with imports in 1990 exceeding those in 1989 by about 100 tons. Total imports by all four countries have been near the 400 metric ton level during the period but there is a notable decreasing trend evident in Figure 1.



DRIED PAPAYAS Four Market Summary

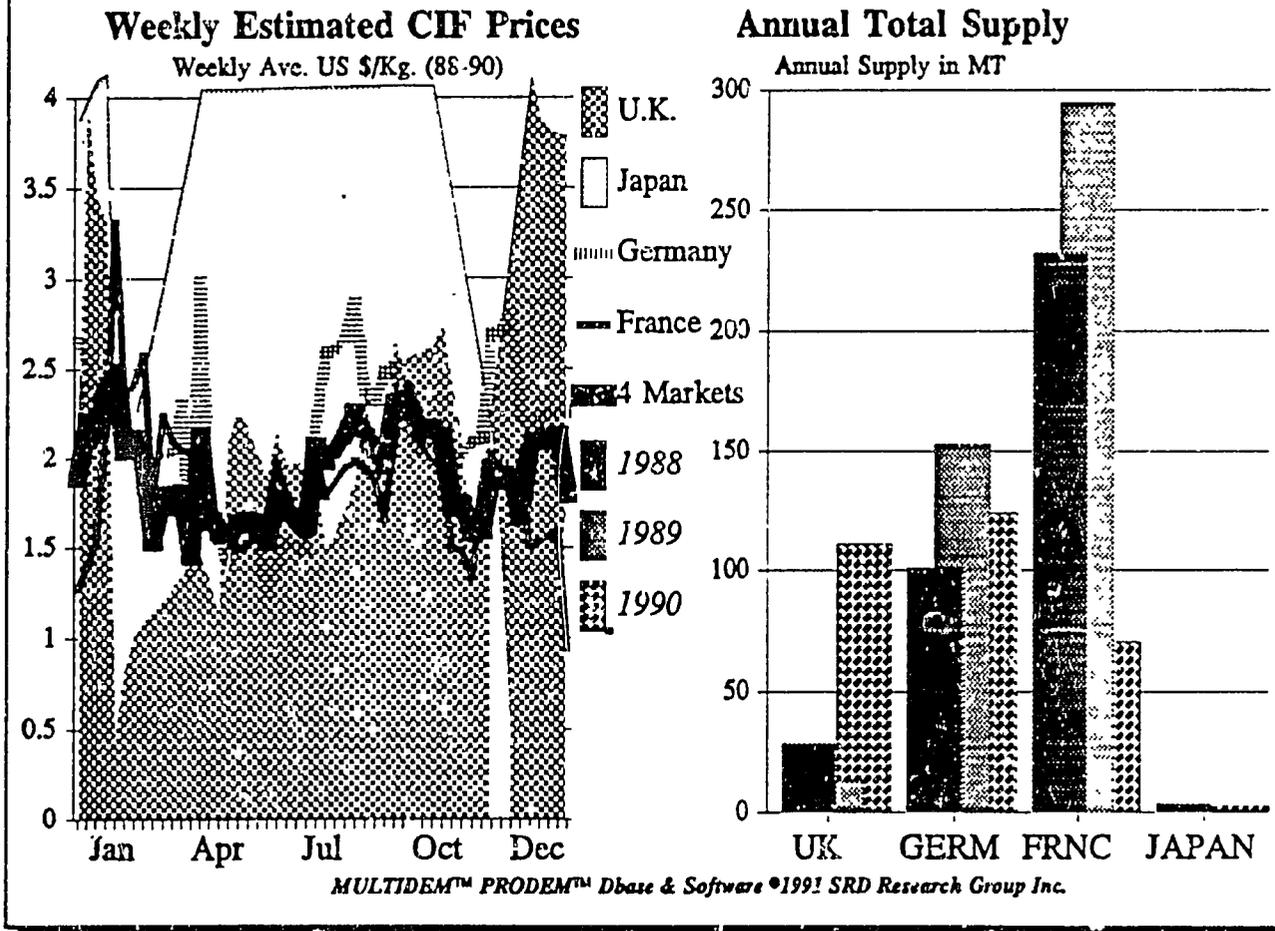


Figure 1: Summary of Average Weekly CIF Prices and Annual Supply for Four Markets

2. Import Supplies of Dried Papayas

Germany. Figure 2 outlines import volumes in metric tons for dried papayas in the West German market. The left hand component of Figure 2 outlines weekly estimated import volumes. Weekly import levels fluctuate around three metric tons per week and SRD estimates the recently enlarged German market to be approximately a 5 ton per week market. The annual pattern displayed in the right side of Figure 2 indicates a fluctuating supply trend, though there was an overall increase from 1988 to 1990. This translates into roughly a 10-15% increase in per capita consumption from 1988 to 1990³. Annual imports over 100 tons in 1988 were followed by imports of roughly 150-125 tons in 1989 and 1990.

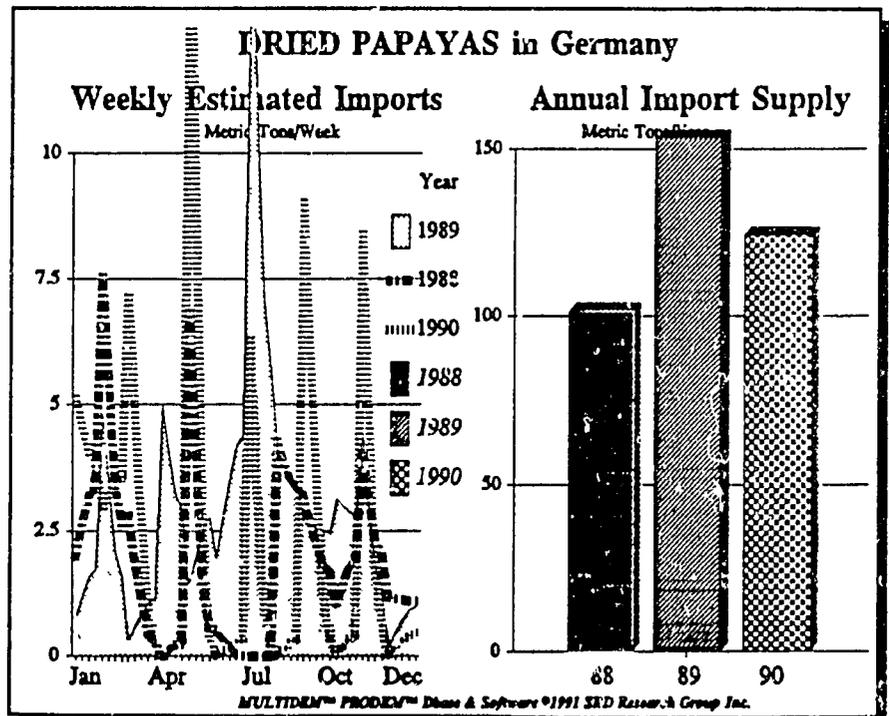


Figure 2: Germany: Weekly & Annual Dried Papaya Imports

France. The French import market for dried papayas is roughly 50% larger than West Germany, though in 1990 imports dropped off significantly. French supplies were just over 225 metric tons in 1988 and almost 300 in 1989 but then dropped to about 75 tons in 1990. In response, prices rose sharply in 1990, probably indicating a fairly balanced market at current prices.

The seasonal fluctuation of French imports appears to be a consistent trend as evidenced by Figure 3. France imports are strongest in the spring, but ebb and flow throughout the year.

Weekly import flows decreased dramatically in 1990, with most of the annual total concentrated at the beginning and end of the year. Unlike Germany, there appears to be a decreasing trend in consumption if the short three year series is to be interpreted as a trend indicator.

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. has had the greatest percentage increase of the four countries analyzed from 1988 to 1990. Imports in 1990 were about three times as high as 1988 and about 100 above the 1989 level. As evident in figure 4 and figure 8, prices and quantities vary unpredictably, indicating that the U.K. market is probably not a mature and stable one. However these figures are insufficient to show whether the market has significant growth potential.

Seasonal import patterns in the U.K. show some consistency over the short three year period under analysis with peaks in the early spring. The U.K. is estimated as a 1 MT/week market.

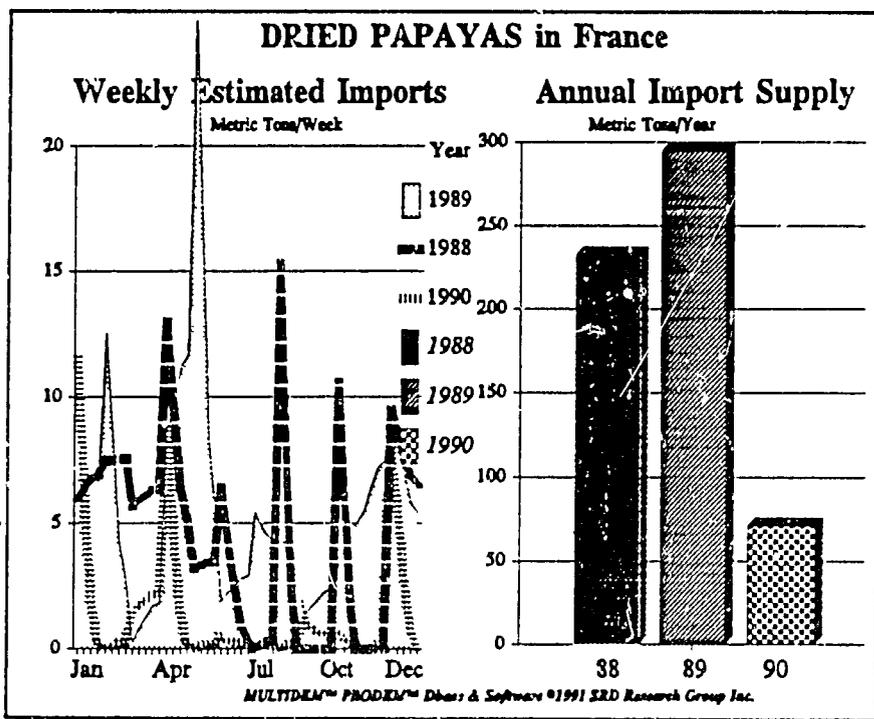


Figure 3: Weekly & Annual Estimated Imports of Dried Papayas into France 1988-90

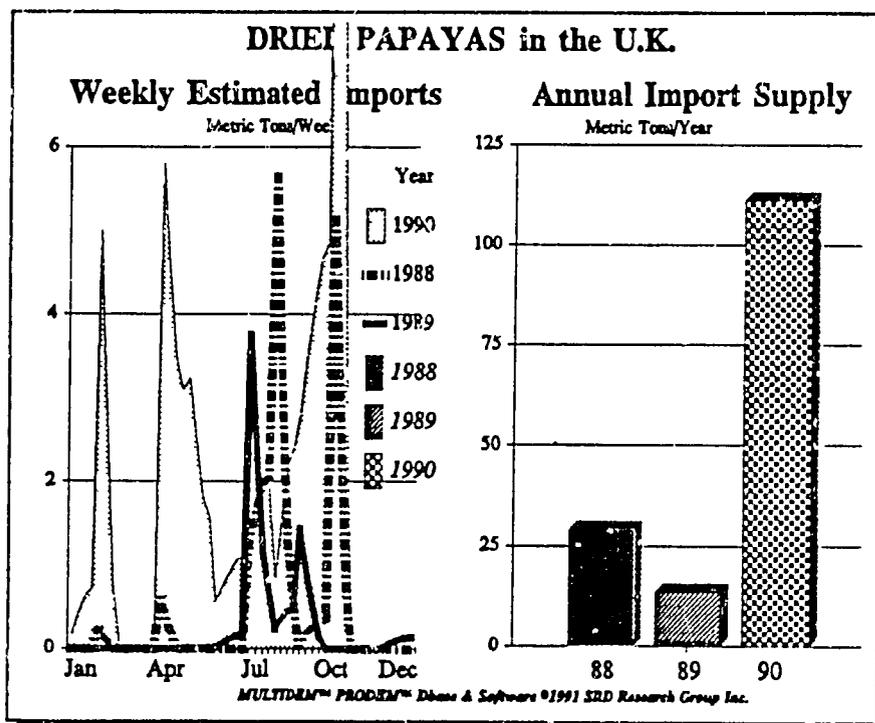


Figure 4: Weekly & Annual Estimated Imports of Dried Papayas into the U.K. 1988-90

Japan. The Japanese markets appears to be the lowest per capita consumer of dried papayas of the four countries analyzed as illustrated in Figure 5. Annual imports also show the a fairly consistent trend over the three year period analyzed, starting with almost 4 tons in 1988 and decreasing to 3 by 1990. While import quantity data are difficult to interpret, Japan appears to be an insignificant importer.

Based on the information contained in this three year period, it would appear that Japan has the capacity to absorb only about .05 tons per week at current pricing levels.

3. Weekly and Annual CIF Prices and Trends.

Germany. Annual prices in US\$ maintained the most constant picture in Germany among the four countries analyzed for 1988 and 1989. Figure 6 indicates that the German CIF price was close to \$2.15/Kg. in both years. In 1990, however, prices rose dramatically, while import volumes fell relatively little. Figure 2 on page 2 shows a roughly 10-15% increase in volume imported in 1990 as compared with 1988 while CIF prices increased nearly 50%. The steep rise in prices in 1990 does not appear to be associated with the change in volumes with the tentative conclusion that there is little price response to shifts in volumes imported. This tentative conclusion suggests that the market is supply driven with possible growth potential at current price levels.

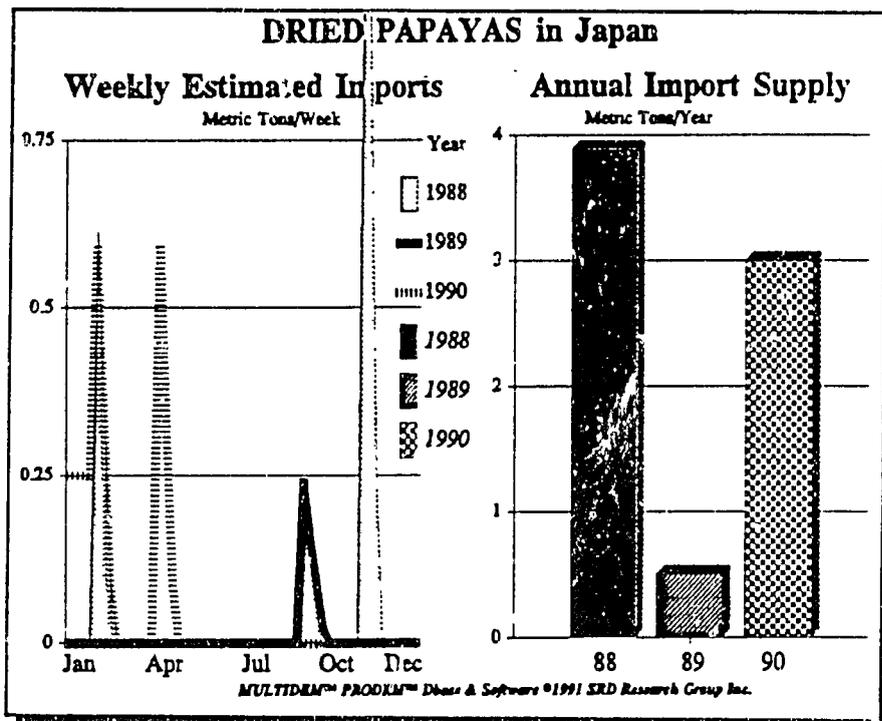


Figure 5: Weekly and Annual Estimated Imports of Dried Papayas into Japan 1988-1990

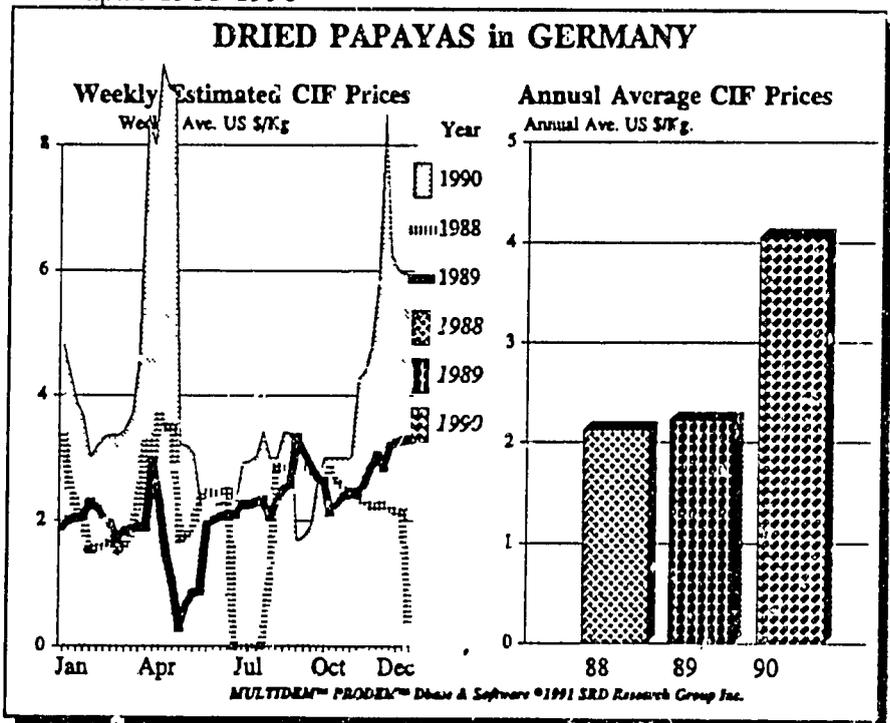


Figure 6: Estimated Weekly & Annual CIF Prices for Dried Papayas in Germany 1988-90

While average annual prices for Germany consistently peak in the spring, seasonal fluctuations are large. Prices fluctuated between a low of around \$1.00/Kg. to highs around \$6.00/Kg.. Comparing these price fluctuations to import volume fluctuations reveals little consistency in the relationship between imports and prices.

France. Figure 7 outlines CIF price patterns for dried papaya imports into France during the last three years. During the first two of the last three years, prices were significantly lower than during 1990. Given the fact that France imported significantly less product in 1990 than in the earlier 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 also appear to be plausibly supply driven as can be seen by the opposite movements in prices and volumes in the latter months in Figures 7 and 3. While Germany appears to be relatively price inelastic, France appears to be at least partially elastic and under some significant supply shortage pressure. CIF prices in France fluctuate across a very wide range seasonally, from near \$8.00/Kg. during low volume import periods, to roughly \$1.75/Kg. during high volume periods. Supply influxes on the order of 10 tons per week appear to be capable of triggering price drops of two to three fold.

United Kingdom. Figure 8 outlines price patterns for the U.K. A review of annual volumes and annual average prices for the three last years suggests that the U.K. market price is relatively responsive to supply volumes. Comparison of the annual summary portions of Figures 8 and 4 indicate that a while large supplies in the spring generally result in low prices, a decrease in supply volumes in the fall can result in increased prices. The plausible relationship evident in annual averages is less obvious

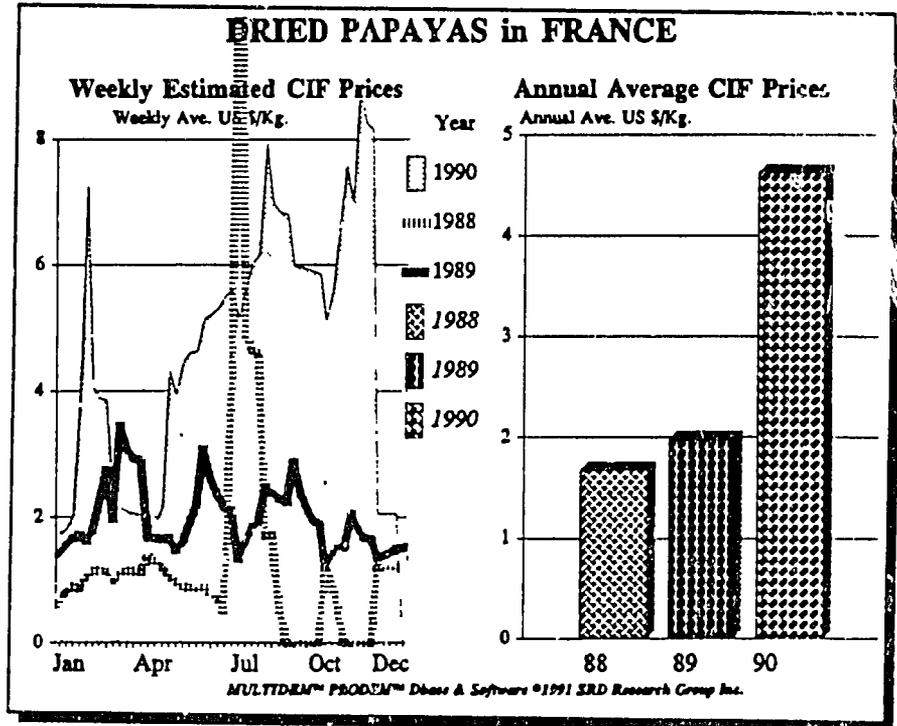


Figure 7: Weekly and Annual Estimated CIF Prices for Dried Papayas in France 1988-90

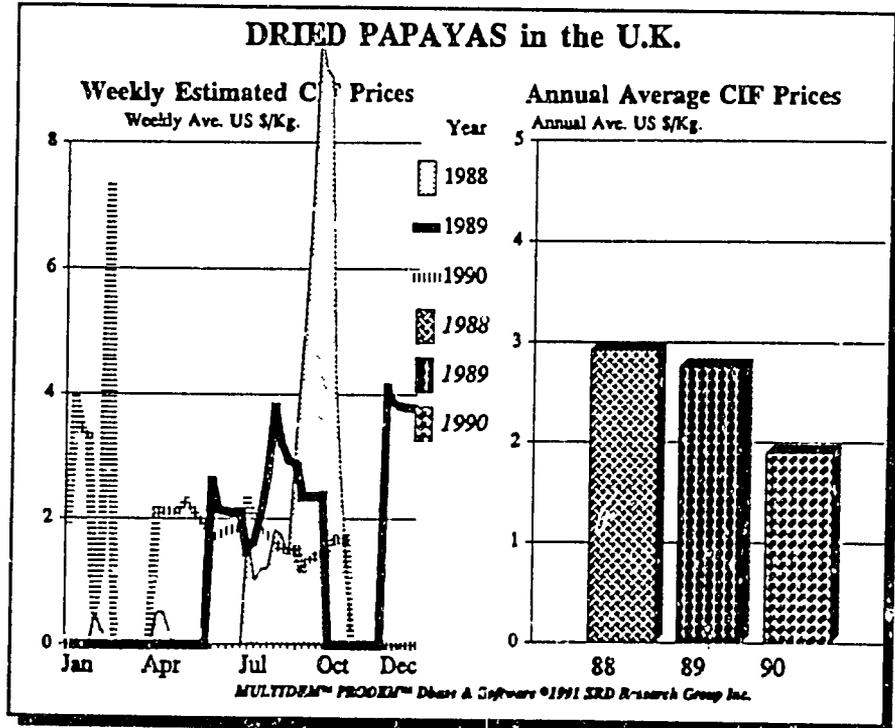


Figure 8: Weekly and Annual Estimated CIF Prices for Dried Papayas in the U.K.

but still plausible in weekly data. U.K. prices have recently become the lowest of the four countries studied, decreasing in 1990 to about \$2.00/kg.

Japan. Figure 9 suggests that Japanese CIF prices are clearly related to volumes. The extremely small Japanese market commands prices which are the highest on the average for the four countries and relatively stable on an annual basis ranging between \$4.00/Kg to \$6.00/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 varieties of papayas can be produced in Sri Lanka for roughly US\$ 0.097/Kg.. Assuming a weight reduction ratio for dry papayas of 82%, this would imply a raw product cost of \$0.54/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 \$1.05/Kg. Using this figure as a cost basis, it would appear that profit margins would range during most periods of the year in Germany between \$.70/Kg. and \$3.00/kg., in Japan over \$3.00/Kg., and in the more stable markets like the U.K. and France, usually over \$1.00/Kg.

5. Bumpers/Lautenberg Amendment Analysis and Recommendation.

The United States is not a significant producer or exporter of papayas. Furthermore, a review of import statistics of the four analyzed countries fails to reveal any measurable imports of dried papayas 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 papaya exports from Sri Lanka to Europe and Asia proceed.

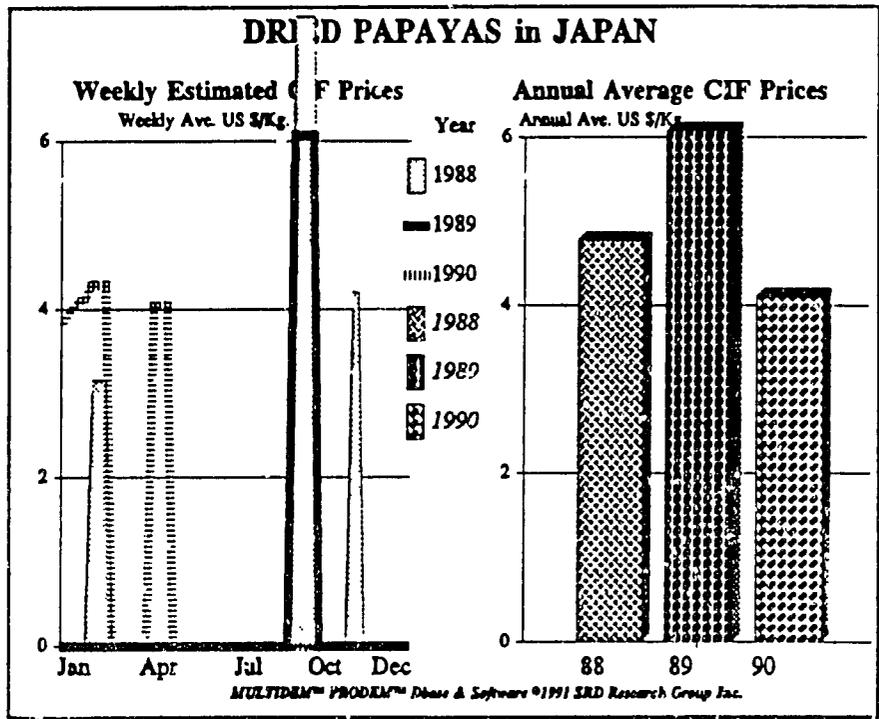


Figure 9: Weekly and Annual Estimated CIF Prices for Dried Papayas in Japan 1988-90

6. Summary and Conclusions.

Dried papaya imports into the four countries analyzed have been approximately 350 metric tons per year during the last three years. The largest market, France, and the medium sized U.K. market appear to be rather mature markets with reasonably responsive supply and demand effects on prices and volumes. In these markets, significant added supplies are only likely if prices are reduced, otherwise market share must be taken from existing suppliers by cost competition. Germany is a significant sized market which appears to be relatively immature and where additional supplies could likely be sold without price deterioration. Japan is an insignificant market with little importance or obvious potential.

Given the above described structure of the major studied markets, it appears that the absorptive capacity of these four markets would not be more than an additional 50-100 tons per year without significant price drops. Our preliminary review of Sri Lankan cost structure suggests that Sri Lanka could sustain significant price drops without losing threshold profitability and is in a good position to exploit expanding markets and competing for market share in stagnant ones. However, the markets are not large and do not appear to be growing rapidly so caution should be exercised in planning large enterprises.

1. Japanese prices appear to be unusually high during periods of very small import quantities. To compensate for these insignificant amounts, some shipments have been eliminated from the data.

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