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SRD Market Intelligence Brief™ PINEAPPLE JUICE

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 Pineapple Juice in four selected target markets including Germany, the U.K., France and Japan for the three year period from 1988 through 1990. While export markets are relatively open in the EC countries, Japan has only recently begun to abandon its quota system for Pineapple Juice¹. Thus the data included in this Brief present a competitive pattern which will likely change dramatically over the next few years for Japan. Newly opening markets in Eastern Europe, strong expansion of Spanish² and Italian markets, and the emergence of larger and relatively low cost supplies in Thailand and the Philippines³ have threatened Brazilian and Mexican positions in world trade and opened a new era in the pineapple juice market⁴. The continuing shift from single strength juice to concentrate⁵ has also reshaped the market. Expanded low cost production during the first part of the period analyzed led to reduced prices, but expanded markets during the latter part of the period⁶ led to shortages and increased prices. This in turn triggered substantial added plantings which will likely have price impacts by 1992-93, but at present the upward price spiral is continuing. The 1991 year (not analyzed herein because of incomplete data as yet) appears to be characterized by very high prices, at times double the 1988-90 averages presented in this brief. While it is still too early to be certain, SRD is advising its clients to expand but be cautious about over-planting based on the 1991 prices since we expect very large planting responses from those large producing countries with the most at stake in the market.



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 Pineapple Juice 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 \$0.70 to \$1.50/Kg. Three year average prices for all countries together stayed very close to \$1.00/kg. Figure 1 summarizes prices for all three years and fails to illustrate the year to year trends illustrated in the detailed graphs which follow. Those graphs present a trend of lower prices during the first two years and a strong price increase in the 1990 period based on continued heavy supplies but large increased markets. Prices continued to rise in the 1991 period for which systematic weekly data is not yet available, but SRD and some other analysts see that trend perhaps ending in 1992 or even by late 1991. CIF prices must also be used cautiously due to potential reporting difficulties.⁷

Annual Supply Levels. A three year history of total imports in the four target markets is presented in Figure 1. The U.K. and France are the largest markets among the markets analyzed, but readers should note that the U.S., Netherlands (largely for re-export), Spain, Italy and Canada are comparably sized markets.

The U.K. is the only market studied which experienced a downturn in import volumes when prices increased in 1990, suggesting that it is a mature market without substantial potentials except as a result of price reductions. France shows the largest increases, even in the face of price increases, but SRD estimates that its future potentials for volume increases are less than Germany, where additional consumers and substitution for other juices are both strong growth factors. Japan shows the most dramatic increase in volume imports due to liberalization in import restrictions. The increase was almost ten fold in one year from 1989 to 1990.

PINEAPPLE JUICE Four Market Summary

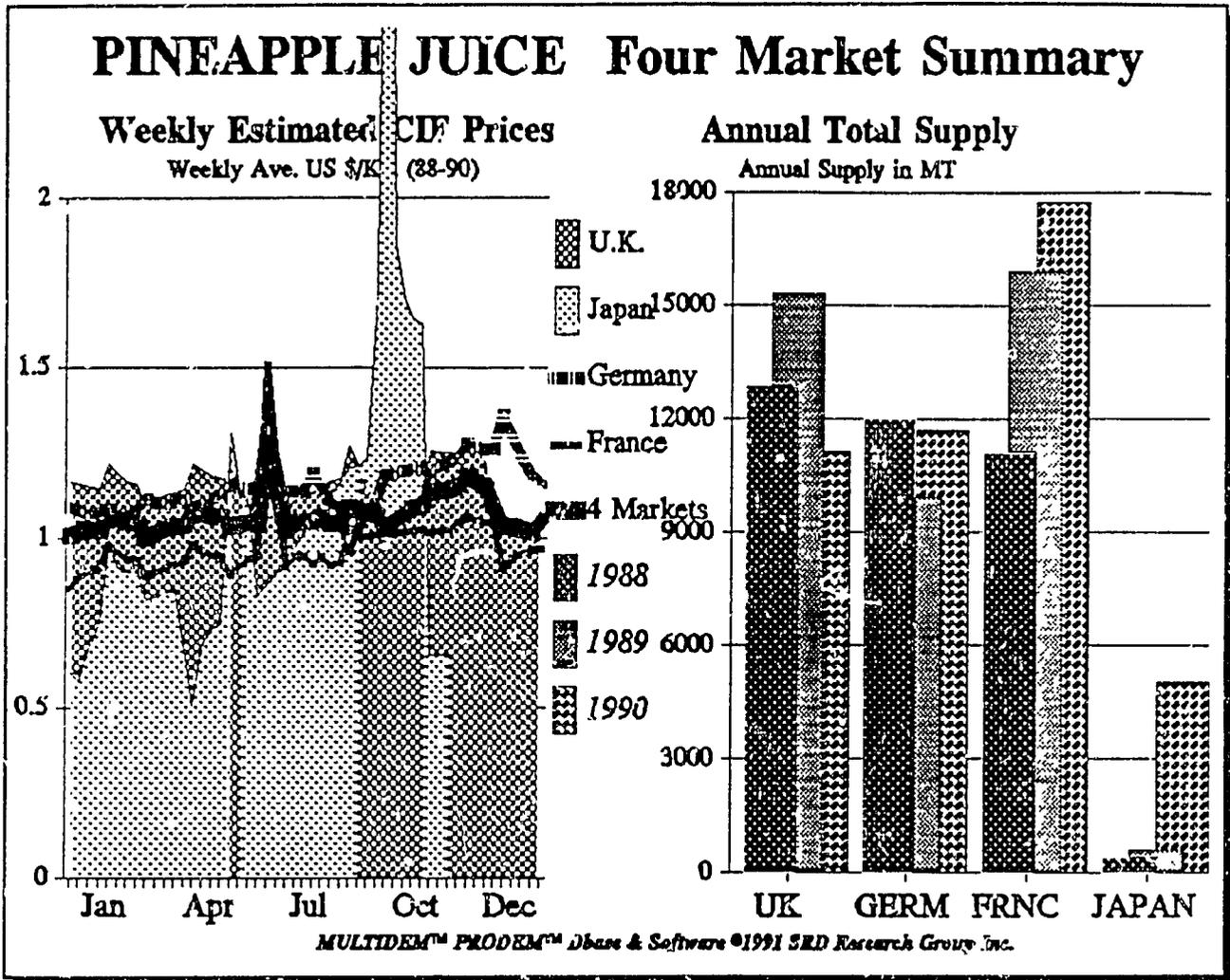


Figure 1: Summary of Average Weekly CIF Prices and Annual Supply for Four Markets

2. Import Supplies of Pineapple Juice

Germany. Figure 2 outlines import volumes in metric tons for Pineapple Juice in the West German market. The left hand component of Figure 2 outlines weekly estimated import volumes⁸. Weekly import levels fluctuate around 200 metric tons per week and SRD estimates the recently enlarged German market to be approximately a 300 ton per week market⁹. The annual pattern displayed in the right side of Figure 2 indicates a steadily growing trend which we expect to continue at an increased rate after 1991. This translates into roughly a 10-15% increase in per capita consumption from 1988 to 1990. Seasonal patterns are of little importance except for a slight tendency for stronger supplies in the summer.

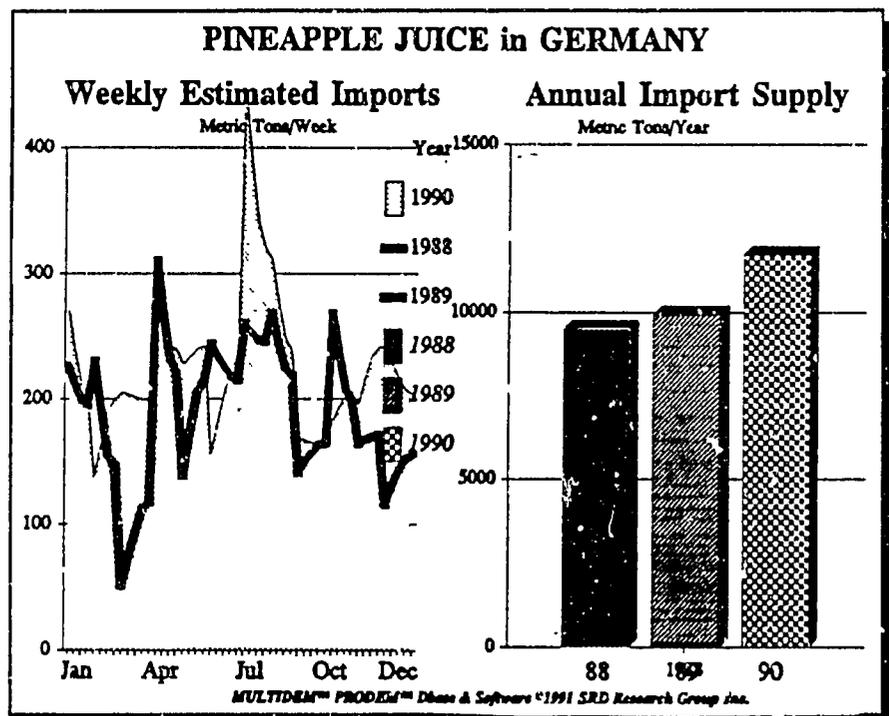


Figure 2: Germany: Weekly & Annual Pineapple Juice Imports

France. The French import market for Pineapple Juice is one of the most rapidly growing in the world having more than tripled in the last five years. Total imports were just under 18,000 tons in 1990, up from 11,000 in 1988. SRD's view of the major factors underlying this expansion have to do with the interaction of lowered prices and expanded supplies in earlier years.

Relatively lower prices for quality product and expanded volumes were characteristic of the 88-89 period which we believe stimulated consumer acceptance and opened a wider market. Even though prices increased in 1990, we believe that consumer acceptance established at lower price held on to quantities even at slightly increased prices.

Weekly import flows, assuming reasonable inventory maintenance levels, indicate that France is roughly a 350 ton per week market at current pricing levels. Unlike Germany France has no new population market to introduce to pineapple juice and hence SRD does expects the 2-3 thousand ton yearly increases to soften over the next few years.

United Kingdom. Figure 4 outlines seasonal import patterns and annual trends for the United Kingdom. The U.K. has traditionally been one of the highest per-capita consuming countries. SRD's view is that the UK is therefore a relatively "mature" market without the growth potential which exists elsewhere. For example in 1986 the UK imported over 10,000 MT of pjc while West Germany with a significantly larger population and income was only importing 2,000 MT. Faced with increased prices and no immature consumer "terrain", the UK simply curtailed imports. SRD expects the future of the UK market to be less attractive than the others markets discussed in terms of volume expansion capability.

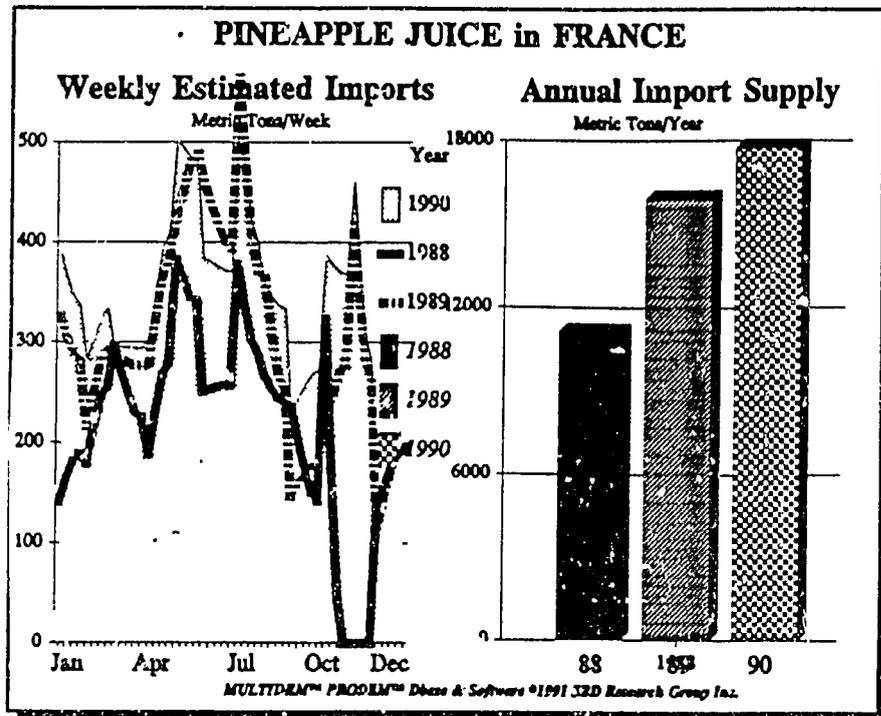


Figure 3: Weekly & Annual Estimated Imports of Pineapple Juice into France 1988-90

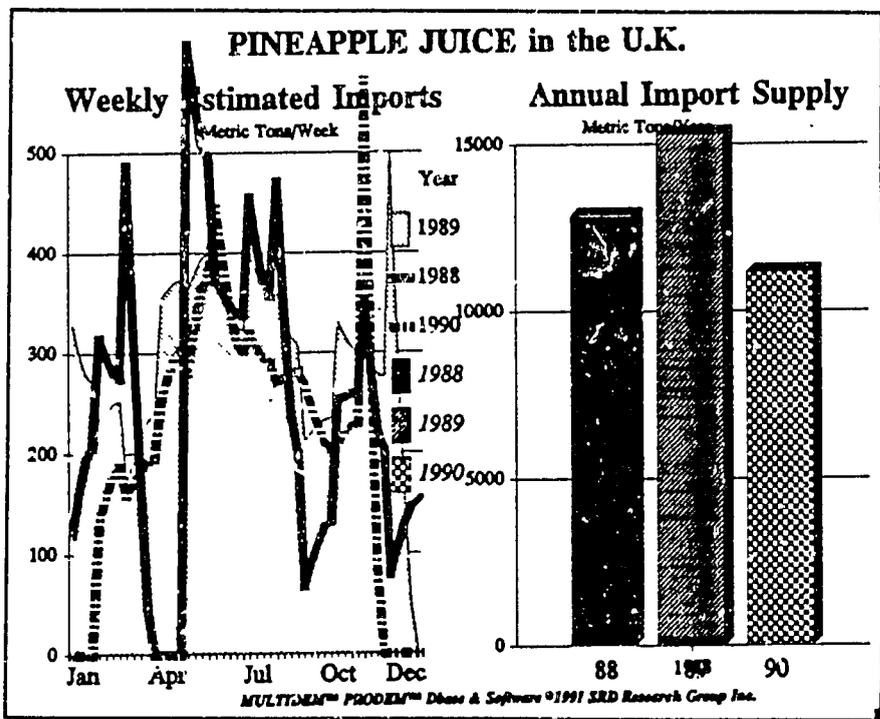


Figure 4: Weekly & Annual Estimated Imports of Pineapple Juice into the U.K. 1988-90

Japan. The Japanese market is the most dramatically changing of all of markets studied. As we mentioned earlier, major liberalization of its restrictive quota import system. A review of the data suggests that trade liberalization was the principal cause of the major import boom which came in 1990 but the trend could continue for some time beyond 1990.

Japan grew from a minor import market with less than 650 tons per year in 1988-89 to a major market with over 5,000 MT in 1990. This is almost a ten fold increase in one year and is one of the major reasons for the supply shortage and the upward price spiral of 1990-91. SRD feels that the Japanese market is too unstable at the current time to make a useable estimate of its ton per week capacity or to predict its medium term growth potential.

5. Weekly and Annual CIF Prices and Trends.

Germany. German prices, when reviewed in the light of quantity import trends, confirm that Germany was a relatively "immature" market with untapped demand potentials even before the addition of the East German population. Both prices and volumes increased from 1989 to 1990 suggesting that wholesalers and processors were able to find

added markets by either trimming margins or passing price increases along to final buyers. The relatively low level of German percapita consumption of pineapple suggests a large long term growth potential in that market. German percapita consumption of all fruit juices is the highest in all of Western Europe at 34 liters per person though it is one of the lowest for pineapple. This, in SRD's view signals a significant long term growth opportunity¹⁰, made even more attractive by the addition of 17,000,000 East German consumers.

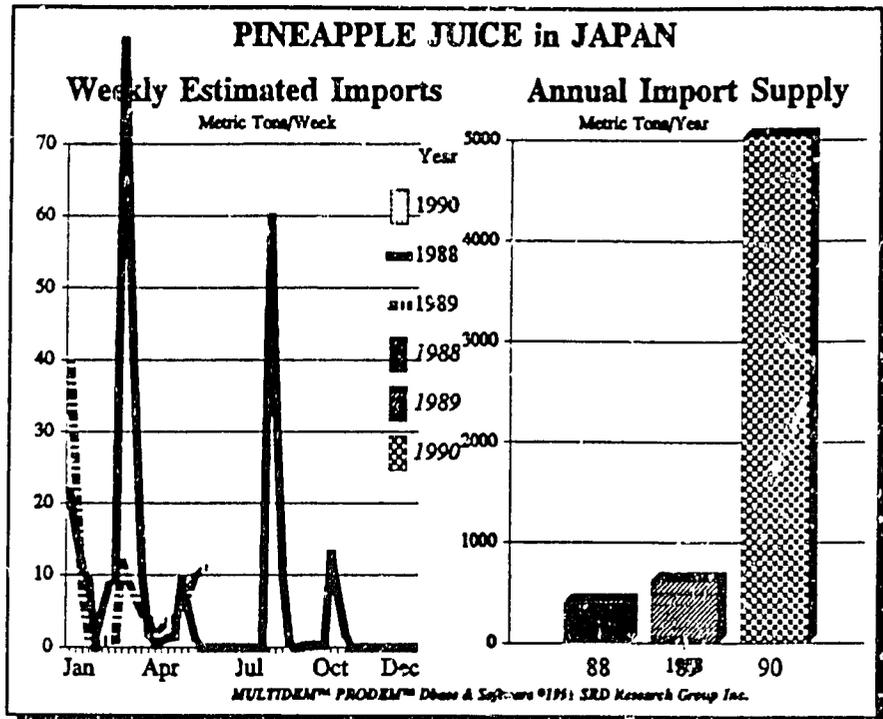


Figure 5: Weekly and Annual Estimated Imports of Pineapple Juice into Japan 1988-1990

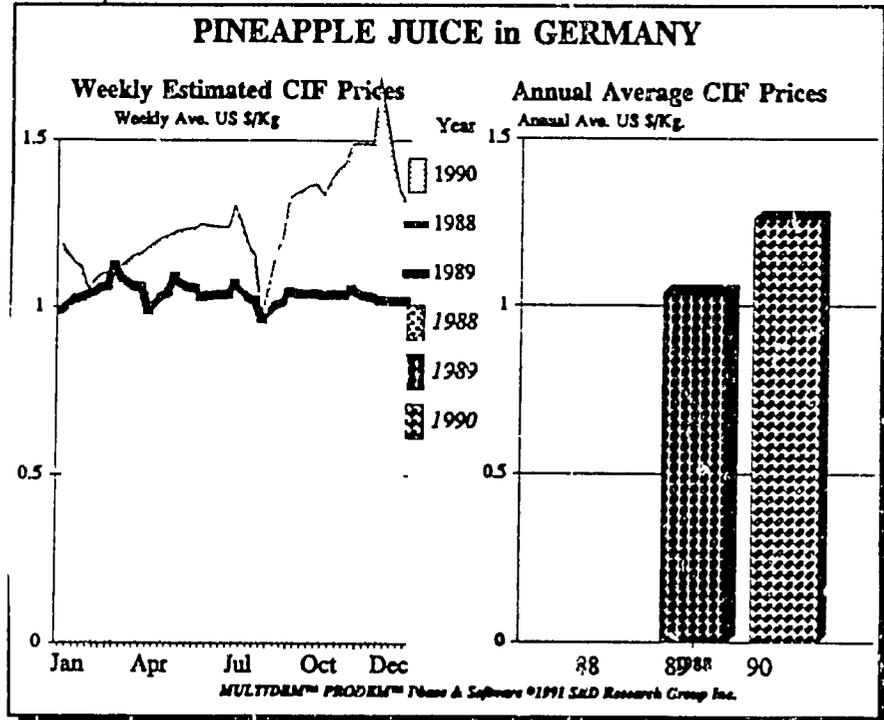


Figure 6: Estimated Weekly & Annual CIF Prices for Pineapple Juice in Germany 1988-90

France. Figure 7 outlines CIF price patterns for Pineapple Juice imports into France during the last three years. French prices increased significantly in line with other importers, but its imports like those of Germany made parallel increases. This suggests to us that the French market is somewhat "immature" like Germany, but the two same major growth potential factors present in the German case are not present in France. France starts from a relatively high per-capita consumption level for pineapple juice at 27 liters/person/year and at the same time has Western Europe's lowest overall juice consumption level at 6 liters per person/year. This suggests that there is almost no potential for substituting pineapple for other current juice consumption, and that increases must grow from the slow process of consumption preference changes. Secondly, France does not have the boost of adding 17 million new consumers in a single year the way Germany has. Thus SRD concludes, that while France is an "immature" market, its growth potential is not likely to be as large or as immediate as Germany's.

United Kingdom. Figure 8 outlines price patterns for the U.K. U.K. prices fluctuated around \$1.05/Kg. in 1988-89 and then around \$1.20 for 1990. The 10-15 price rise was accompanied by a decrease of roughly 20% in imports. This suggests, as mentioned earlier, that the U.K. is a mature pineapple juice market and that growth in quantity will come only as the result of lowered prices. This may be an overly rigid view of the UK market, but it appears the most consistent with the short run experience of the last three years.

There is potential for increasing U.K. overall juice consumption, but its current consumption of pineapple juice is the highest in Europe and there is relatively little potential for pineapple juice even if overall juice consumption were to significantly expand. However, the composition of consumer preferences is hard to predict, and there is a chance that as overall juice consumption expands, pineapple will continue to be a large component.

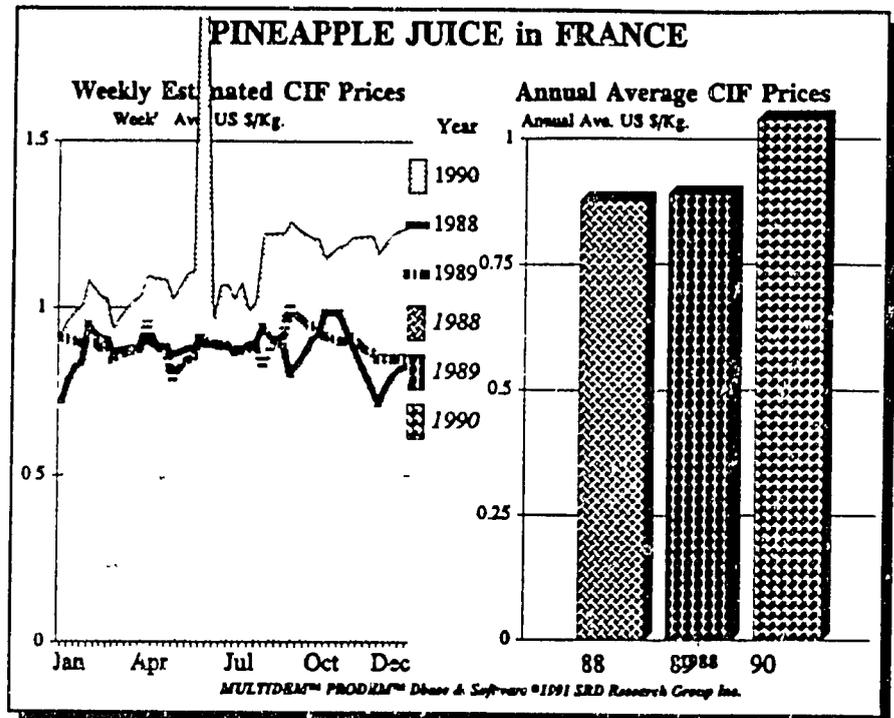


Figure 7: Weekly and Annual Estimated CIF Prices for Pineapple Juice in France 1988-90

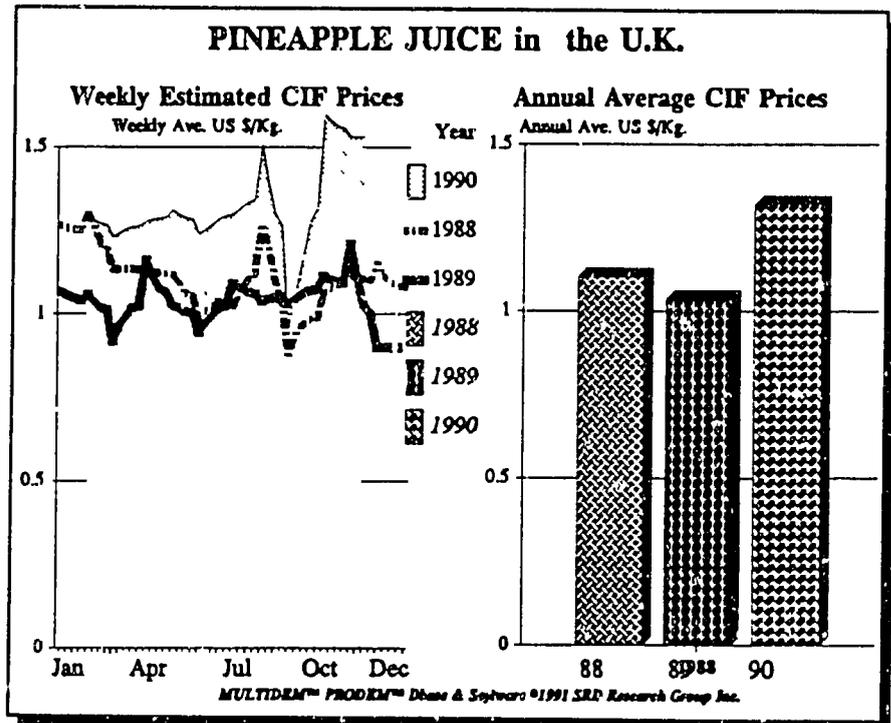


Figure 8: Weekly and Annual Estimated CIF Prices for Pineapple Juice in the U.K.

Japan. Prices in Japan, as illustrated in Table 9, appear to have dropped in 1989 from 1988 levels based on expanded lower cost supplies. Reliable weekly price data for 1990 are not yet available but appear to be higher even in the face of the almost ten fold increase in imports. This indicates that the Japanese market is very immature as a result of rigid import restrictions. The size of its growth potential and the factors which will determine it are not yet obvious from the data available to SRD.

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 juicing varieties of pineapple can be produced in Sri Lanka for roughly \$ 0.04/Kg.. Assuming a weight reduction ratio to the average export combination of single strength and 61 degree brix concentrate of .26, the raw fruit cost would be approximately US\$ 0.15/Kg. A review of Sri Lankan data failed to provide us with any cost data on juice processing or concentrating. Such data would have to be generated as a part of a feasibility study by a processing experts. To illustrate how to utilize the data in this Brief in combination with such processing cost data, we have assumed that the costs of processing to be \$0.22/Kg.. Transport costs to the analyzed markets might be in the range of \$0.26/Kg. giving a total C&F of \$.63/Kg. Using this illustrative figure as a cost basis, it would appear that profit margins would range during most periods of the year from \$0.20-0.30/Kg..

5. Bumpers/Lautenberg Amendment Analysis and Recommendation.

While the U.S. is a producer of pineapple juice, it is one of the world's largest importers and exports only insignificant quantities into the markets analyzed. Not only are the absolute quantities exported by the U.S. insignificant, but the US market share is even more insignificant except in a few very special country cases not included here¹¹. Because the U.S. is a substantial net importer, the possibility of extending this situation to other important cases is negligible. Figure 10 indicates that US exports to the U.K. were only 12.7 tons in 1988, 71 tons in 1989, and 31.6 tons in 1990. Percent shares were less than 2% in all years. Figure 11 indicates that US imports into Germany were less than 100 tons in 1988 and 1989 together and percent market share was less than half of one percent. Figure 12 indicates that the IJS exported relatively small quantities to Japan (3 tons in 1988, 36 tons in 1989 and 846 tons in 1990). Market shares varied from less than 1% to 17%. Even if the single year 17% were to be considered significant, the small amounts likely to be exported by Sri

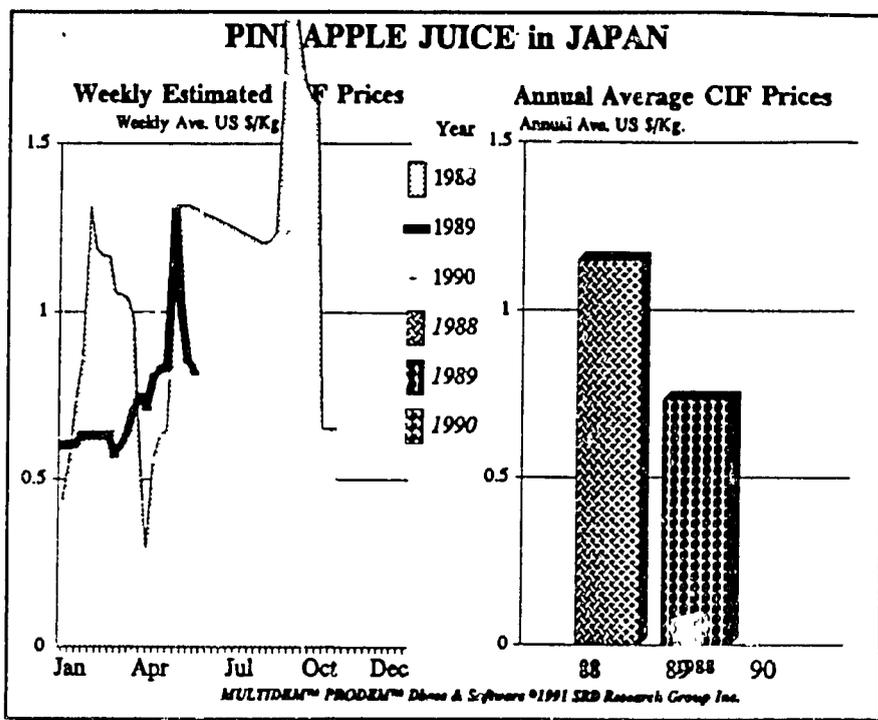


Figure 9: Weekly and Annual Estimated CIF Prices for Pineapple Juice in Japan 1988-90

	Imports MT/Mo.	U.S. Supply	US Supply Percent
USA			
JAN 88	72.8	0.8	1.074%
FEB	604.2	1.6	0.387%
MAR	1,021.3	2.6	0.251%
MAY	1,148.3	1.7	0.144%
JUL	756.3	0.8	0.103%
SEP	305.5	3.0	0.994%
OCT	566.6	0.8	0.138%
NOV	538.1	0.8	0.140%
DEC	276.1	0.8	0.272%
TOTAL 88	5,089.3	12.7	0.249%
JAN 89	470.8	0.8	0.160%
FEB	641.2	10.2	1.593%
MAR	487.5	16.5	3.382%
APR	63.0	20.8	32.993%
MAY	613.0	1.6	0.255%
JUN	1,067.8	1.1	0.105%
JUL			
AUG	445.3	0.8	0.176%
SEP	559.8	6.6	1.183%
OCT	589.0	2.3	0.398%
NOV			
DEC	509.7	37.8	7.416%
TOTAL 89	3,847.6	71.0	1.846%
JAN 90			
FEB			
MAR	74.9	18.7	25.000%
APR			
MAY	1,250.1	19.5	1.560%
JUN	933.8	0.8	0.084%
JUL			
AUG	922.3	9.8	0.992%
SEP			
OCT	347.3	1.5	0.432%
NOV			
DEC			
TOTAL 90	3,523.5	31.6	0.898%

Figure 10: U.S. Pineapple Juice Exports to U.K.

	SUPPLY	US SUPPLY	US SUPPLY
GERMANY 89/90	MT/Mo.	MT/Mo.	Percent
DEC 89	465.3	1.1	0.24%
MAY 90	334.5	25.3	7.56%
JUN	474.9	12.7	2.67%
AUG	534.6	0.2	0.04%
OCT	291.4	14	4.80%
NOV	888.2	45.9	5.17%
TOTAL 89/90	21,654.0	99.2	0.46%

Figure 11: U.S. Pineapple Juice Exports to Germany 1989-90

Lanka to Japan given its relative transport disadvantage against the two world's largest pineapple juice exporters (Thailand and the Philippines) have little chance of affecting the small US share. SRD therefore recommends that detailed feasibility analysis and support of pineapple juice exports from Sri Lanka to Europe and Asia (except for Korea) proceed.

6. Summary and Conclusions.

The pineapple juice market has experienced dramatic changes over the last three years. Thailand and the Philippines expanded supplies significantly and prices softened during the early part of the period. Some major importers such as Germany, Spain, France and others increased imports and extended consumption during that period. Expanded markets in Japan, occasioned by import liberalization, combined with the opening of Eastern Europe changed this expanded supply situation into a shortage situation and prices tended upward. The market until very recently has still been in this shortage phase with upward pressure on prices and frantic expansion in plantings. There are some signs that the shortage mentality and price spiral is ending. SRD's view of the market is that it is still a very good one and will continue to be so for a considerable period, but that the euphoria of the past year or so should not lead new entrants into the market to expect an easy future. New entrants should attempt to position their additional supplies in market niches where expansion potentials exist in the longer run rather than simply count on riding a continued positive general market with shortage and high price conditions.

One possible niche for Sri Lanka could be in Germany based on the combined factors of the addition of 17,000,000 East German consumers with high propensity for processed pineapple consumption. Another niche could be East Europe where Thailand and the Philippines have less marketing experience and are at some transport cost disadvantage. Another niche could be to produce fruit for juice only rather than trying to juice the residuals from a canning industry as is the dominant practice in the major juice exporting countries. Juice produced from canning residuals is a lower quality product than juice

Year	US Imports (Metric Tons)	Total Imports (Metric Tons)
1988	3	428
1989	36	623
1990	846	5,034

Figure 12: U.S. Exports of Pineapple Juice to Japan

produced from whole fruit. Since all other major exporters are burdened with the major capital expenditure in canning and faced with vast quantities of residual fruit (though that may be also seen as a benefit in some senses) they must largely follow the residual juicing strategy in the short run. Sri Lanka could target the higher quality niche markets in Western Europe with a whole fruit based juice concentrate. This market brief does not purport to provide a market niche strategy, only to suggest that the market is likely to become more competitive in the next five years and new entrants like Sri Lanka should look for a defensive marketing strategy which will allow them to survive.

1. The quota system for Japan and Korea were liberalized during the trade year 1990 offering new opportunities mostly for Asian neighbors but also for others. EC import restrictions and duties are much less closed, but the market is by no means a totally open one.
2. Spanish imports alone grew from 2,833 metric tons in 1986 to 5,021 MT in 1987 and to 10,833 by 1988.
3. Thailand and the Philippines dominate exports with more than two thirds of all exports.
4. The U.S. and the EC have traditionally been the dominant importers but that picture is changing as the market diversifies. In addition to the newly expanding markets mentioned, other large markets exist such as Netherlands (17,397 metric tons in 1989), Belgium (2,193 MT 1989), Finland (1,617 MT 1989), Portugal (1,233 MT 1989) and Sweden (869 MT in 1989).
5. Pineapple Juice Concentrate (pjc) is normally sold at 60 degrees brix in frozen or aseptic bulk pack.
6. For example, Japan alone moved from a minor importer with 627 MT of pjc in 1989 to a major importer of over 5,000 MT in 1990.
7. 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.
8. Figure 2 contains an estimate of yearly imports for all three years and weekly estimates for 1989 and 1990. Weekly estimates for 1988 are omitted due to problems in data availability. The 1988 annual total is estimated using a constant ratio for both years in concentrate to single strength imports.
9. Pineapple juice is one of the handful (oranges, orange juice, bananas, processed pineapple (canned & juice) of tropical horticultural products for which SRD expects very strong effective demand in the opening markets in Eastern Europe. Thus the inclusion of the relatively low income and small population of East Germany is nonetheless projected by SRD to significantly increase German demand for pineapple juice.
10. West German consumption for all fruit juices is 34 liters per person compared to 14 liters in the U.K., and 6 liters in France. The potential for pineapple in SRD's view lies in the fact that its pineapple juice consumption per capita is one of the very lowest in Europe. This potential is not likely to be instantly or easily tapped because Germans are not likely to increase the overall levels of fruit juice intake quickly, the potential lies in substituting pineapple for other mainline juices such as apple (8.4 liters/capita/year), orange juice (8.6 liters/capita/year) and citrus nectars (11.9 liters/capita/year). Direct importers may not be the best marketing channel to utilize to tap this latent substitution demand. Direct sales promotion arrangements with supermarket suppliers like Scipie could be a better alternative. A small supplier like Sri Lanka could perhaps find an important niche in the German market where large suppliers like Thailand without the agility or patience to exploit specific small opportunities might not be willing.
11. One such case is Korea where the U.S. has a very significant 43% share.