

PROCESSING/MARKETING

The paper presented a comprehensive coverage of the processing and marketing of prawns for export as practised by AA Eximco, a firm based in Roxas City.

Philippine export of *Penaeus monodon* in 1983 was estimated at 4,450 MT of which 2,000 MT was caught in the fishing waters and about 2,450 MT produced from aquaculture. These are mostly exported to Japan and the United States in processed and quick-frozen form.

1. *Post-harvest handling*

Processing begins with proper handling after catch or harvest. Freshly caught prawns are packed with crushed ice in insulated containers. In the processing plant, the prawns go through nine processing steps: washing in clean cold water; classifying according to buyer's specifications; sizing according to internationally accepted sizes; weighing according to buyer's requirements; rinsing again with clean cold water before positioning the sized prawns in tin containers; filling up the tin containers with clean fresh water; quick-freezing the processed prawns in the water-filled containers; removing the frozen blocks from the containers and wrapping the blocks successively in plastic bags, consumer packs and bulk packs; and, finally, cold storing the fully wrapped prawns ready for export.

Processing is labor-intensive. About 30 people are required to process one metric ton per day. All the steps can be mechanized using custom-built machines but this is not practicable in the Philippines. Use of high-standard quick-freezing equipment for shorter freezing time is necessary.

Mechanization of the quick-freezing process but manually performing the other processes, all under very sanitary conditions, is advisable. The faster the prawns are quick-frozen, the better their quality.

Observance of hygienic practices all throughout the operations particularly in manual processing was stressed. Negligence and poor sanitary conditions often leads to rejected products due to unacceptable bacterial loads. These rejections in the export market cause financial damage and tarnish the reputation of the Philippines as a source of prawn and fish products.

Marketing is another important aspect in the exportation of prawns. Marketing involves not only quality but also pricing, delivery, promoting and competing. Pricing of prawns depends on many factors such as supply

and demand, foreign exchange rates, labor and packaging cost, freight, taxes, and government policies and incentives.

The delivery of exported prawns has to be consistent and reliable. Continuous supply should be assured. To establish a brand name and increase saleability, an extensive promotional campaign is essential. The Philippines ranked among the top ten in 1982 in total exports of prawns to Japan, with a total volume of 3,694 MT (valued at US \$37,521,000). Competition is keen among countries of the Asia-Pacific Region and some countries in South America. Therefore, in order not to be outdone, we have to keep abreast of the latest technology not only to increase production but to improve quality of taste as well. Philippine exporters should likewise intensify their efforts at expanding the United States market and penetrating the Middle East and European markets which so far remain untapped by local exporters.

The Philippines has a tremendous export potential and a vast national capacity for production. The export industry is still in its infancy stage and needs a strong government support to be more price competitive in the world market; one incentive from the government would be the relaxation of the 6% export tax. To realize the potential, government and the private sector should actively engage in research and development for aquaculture.

The Philippines is not the only country exporting prawns to Japan. It must be able to compete favorably with other countries like Indonesia, Taiwan, India, China, Pakistan and Bangladesh. Only two exporting firms have penetrated the U.S. market.

Prospects for increased exports are bright but it is the role of the industry and the government to convert this great potential into increased production. The present 6% export tax is seen as a hindrance to industry growth. The Philippines is the only country that imposes tax on export of prawns.

Processing problems include: (a) high initial loadings of bacteria in processed prawns, (b) high ambient temperature in processing and transport, (c) manual peeling of prawns which accelerate bacterial contamination, (d) poor facilities, and (e) low acceptance of processed Philippine prawns in other countries.

While *P. monodon* is expected to remain as a major penaeid species for export, there is now a need to diversify into other penaeid species. In pond areas not suited for sugpo culture, other species may be cultured. Sugpo comprises some 10-15% of the total prawn in the market even as other markets like the U.S. prefer smaller species so that *P. indicus* might be a better candidate. SEAFDEC AQD has ongoing research studies on *P. indicus* culture.

Since quality is an important aspect of processing, there is need to define what the processors-exporters mean by good quality. After the visual criteria like color (true color and absence of black spots), texture (glossy appearance, hard shell, etc.), completeness of body parts, and odor are satisfied, microbiological tests are done to ensure compliance with export quality standards.

The product must reach the processing plant as quickly as possible. However, in areas which are not served by airplanes, the need to observe proper packing pro-

cedures in order to preserve the coldness of the product is more important. In all cases, proper icing at a 1:1 ratio as a rule of thumb should be observed. The shrimp should be chilled only, not frozen, during transport to the processing plant. If they are frozen hard, they will have to be thawed during processing and this will mean further reduction in quality.

The potential exists for marketing our prawn in forms other than frozen, i.e. "convenience food." However, there is a need to establish a good reputation in exporting frozen prawns.

Recommendations were presented for the elimination of bacterial load in prawns. As practiced by the Food Terminal Inc, prawns are frozen using individual quick-freezing, or freezing in blocks which have proved to be effective.

2. Marketing

Obviously, sugpo is presently produced for the export market because even at current production levels, the domestic market cannot absorb the volume. Besides, very few local consumers can afford to pay the price which the prawns fetch in the export market.

One of the major problems facing producers is under-utilization of plant capacity. Processing plants can still absorb all the domestic produce even if the quantity doubles from current levels.

It is essential for us to maintain a competitive edge over other countries possibly by lowering production costs. Other markets need to be explored and one of the most lucrative outlets is the US. Taiwan has already entered the US market and the Philippines has some exposure through the Ayala Corp. and Sugeco. The European market is not very attractive at the moment because of high cost of transport over such a distance and unrealistically high quality standards.

At present the best the farmers could do is observe proper icing of the product.

The export marketing of prawns was discussed, the details of which are contained in the "Primer on the Simplified Export Procedures and Documentation" published by the Bureau of Foreign Trade of the Ministry of Trade and Industry which was also made available to the participants.

Finally, it was recommended that a solid reputation be established for exported Philippine frozen prawns through proper handling from pond to processing plant.