

POST HARVEST HANDLING OF SUGPO

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A remarkable development in fish production and processing has been achieved within the last decade in this country. This is due primarily to the tremendous growth of export in marine products. Prawn has the highest market value among the fishery products.

Buyers collect prawn by going around small sea farms. They bring the produce to a town where they are iced before being transported in a cargo truck to a processing plant or market. The original freshness of the prawn is lost due to the series of handling without the benefit of ice. In places where there are ice plants near the source, the quality of the product is maintained better. A few prawn producers/traders airlift their product to Manila; the freshness of the prawn is retained to fetch a higher price.

There are few available published studies in the handling, transport and freezing of prawn in our country. In advanced countries, a well developed system is being implemented by fish producers. The application of their technology however is not economical under our existing conditons.

The Food Processing Department (FPD) of the Food Terminal, Inc. (FTI) has standardized the handling, transport, freezing and storage procedures for Penaeus monodon.

Sugpo investigated was obtained from Guiñangan, Quezon. Pre-chilling of prawns to 4°C prior to packing for transport preserves the quality of the prawns.

Polybox (polystyrene) with wooden frame was found to be the best container among four containers examined (wooden box, big kaing, small kaing and polybox) for hauling prawns from farm to market. Its high cost over other types of containers is offset by the better quality, less rejects and less loss in weight on arrival of the products at the FTI.

Blast freezing at minus 40°C reduces bacterial load to a count within the FDA limit for frozen products. Further storage at minus 23°C reduces aerobic or coliform organisms. E. coli is reduced but not totally eliminated in one year storage. Salmonella was not present in prawn that were investigated.

Sizing and quality standard should be applied in the trade to get a maximum return from the harvest.

BFAR conducted studies on the effect of bisulfite in icing and freezing of shrimps. Results have shown that sodium bisulfite (food grade) is effective in delaying the onset of blackening in shrimps. Dipping for 20 minutes in calamansi mixture (1 part calamansi to 20 parts water) is recommended for preventing black spot formation.

Complete Researches on Prawn Processing

1. Standardization of Handling, Transport and Freezing of Sugpo (Penaeus monodon) (FTI)
2. Preparation of Kroepeck from shrimp (CLSU, UPCF, BFAR)
3. The effect of edible coating CMC (Carboxyl methyl cellulose) on the dehydration quality of shrimp (preliminary studies) (UPCF)
4. Canning of shrimps (Penaeus indicus) in shrimp head extract (UPHE)
5. Canning of shrimps (Penaeus merguensis) in buffered brine (UPHE)

On-going Researches

1. Standardization of canning procedures for shrimp products (NIST)
2. Studies on the effect of bisulfites in icing and freezing of shrimps (Penaeus merguensis) (BFAR)

References

1. Dolendo, A., E. Tongco, R. Roncal and Ma. Alameda, 1978. Standardization of handling, transport and freezing of sugpo (Penaeus monodon). Published by NSDB, Mla.
2. Guevara, G., F. Abella, & S. Canonizado. 1978. Studies on the effect of the use of bisulfites in icing and freezing of shrimps (Penaeus merguensis). Unpublished.
3. Legaspi, A. 1979. Personal communication.