

HANDLING AND PROCESSING OF BANGOS OR POST HARVEST PRACTICES OF THE PRIVATE SECTOR

by

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I am going to speak about local and regional practices of our bangos producers from the time the fish are lifted from fishponds and fishpens. Generally, the handling methods used differ slightly except for certain variations to suit (1) distances from the market (2) the volume and quality of catch, (3) further processing to be done, if any, (4) and others. To cite a few cases, if the fishponds are within the area of the consumers, the fish are just washed, sorted according to size and marketed without icing. No containers are used if they can be contained in a banca and delivered to the local market. When the volume of catch is too big for the local market, the fish are usually washed, sorted, crated and even iced by the producers. However, in some fish landings, the big buyers are the ones who crate and ice them instead of the producers, the former being the ones who sell them to more remote towns. Some big producers, of course, market them in crates with ice, whether for local or distant market. In short, the handling methods followed depends on the market requirements.

To maintain the freshness of harvested bangos, the use of ice is still the most popular. The amount of ice used (or proportion of fish to ice) varies with the local cost of ice, which is quite prohibitive in many places, and the distance travelled from ponds to fish landings. The cost of ice ranges from P10-P18 per block of 300 lbs. The use of antibiotics, like "OTC" and "CTC" (tetracycline compounds) and chemical preservatives like nitrite, in conjunction with either ice or dips, is not practiced commercially. However, for the past few years, "pre-cooling" of just harvested bangos is being practiced by producers from Capiz and Iloilo. The harvested bangos are placed in large wooden tanks containing ice to bring down the body temperature of the fish from 37°C to 20°C which takes place in about an hour. They are then transferred to wooden shipping boxes, containing alternate layers of fish and ice of about 1:3 ratio of ice to fish. The transport of bangos from the Visayan Islands to Luzon is by inter-island boats. The usual fish content of the boxes is 1.0 - 1.5 tons.

By air, styrofoam boxes are used in storing about 20-30 kilos of bangos with an ice to fish ratio of 1:5 to 1:7. "Canastros" (bamboo

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baskets) or "bañeras" (GI tubs) are also commonly used for transport by air using chartered cargo planes. Transport by air necessitates more fish to ice ratio and smaller and lighter containers to offset the higher cost of air freight.

The traditional use of ice is hard to replace in fish handling because of the convenience of its application and its dual role of lowering the temperature of fish and washing the fish as it thaws, thus slowing down bacterial spoilage, enzymatic action and oxidation and preventing dehydration of the fish.

Commenting on the present handling and icing of bangos, I would like to see a little more ice left upon reaching their destination. On the use of large wooden shipping boxes, my observation is that the lower layers of fish are subjected to excessive pressure by the weight of fish and ice layers above them. Some producers remedy this by placing horizontal boards to divide the vertical weight of the layers of fish and ice. Although some have done this, they complain of losing the boards when the boxes are opened. As a suggestion, how about reducing the height of the present box and using two boxes in place of one? When superimposed on each other, they will occupy the dimensions of the original tall one. This will ease the weight of the layers of fish and ice. The ice can also be made to keep longer by insulation, using styrofoam linings.

So much for the handling and icing of bangos. Now, we come to fish processing. In places where conditions are such, some of the products are frozen whole bangos for export to Guam and the U.S.A. Quick freezing is done by blast freezers at the Food Terminal, Incorporated (FTI), formerly the GMTFM, of the DBP at Bicutan, Rizal. The FTI offers full services of receiving, sorting, freezing, wrapping, packing and storing in their deep freeze storage. Information is available at the FTI, prepared by the Food Research and Processing Department, FTI.

An outfit in Negros makes frozen boneless bangos as well as frozen smoked boneless bangos. They are the usual contact plate freezers. In the beginning, frozen bangos products were popular in Manila supermarkets, but lately I noticed it is not so. Can it be the high retail price or the quality breakdown of quick-frozen products due to poor handling and management of frozen products? The latter is the hardest to solve in the frozen food industry because once the frozen products are shipped by the manufacturer, he does not have enough control over them. He might have the latest and most efficient contact or blast freezer equipment and a storage room where the temperature is constantly maintained at minus 40°F. However, if the products are transported to Manila and not kept at temperatures which prevent thawing and excessive fluctuation of temperature even below freezing temperature, on their way to frozen storage chests of supermarkets, chances are, we have poor quality, quick-frozen product. It is at this phase of the frozen product industry development in America

that Mr. Birdseye, the pioneer, encountered much difficulties in the early days. Unless manufacturers and traders study this phase of the industry more closely, we will not graduate from the common derogatory remarks of consumers, about "hilado" products.

Canned bangos, to a very limited extent, is sold in some grocery stores. This is prepared and packed in No. 2 flat cans with tomato sauce and fermented soybean products. The defunct National Food Corporation of the National Development Corporation once canned bangos in Guagua, Pampanga, and later in Capiz. The latter plant ceased operations during the last war in 1941. Circumstances were such that it was not practical to revive the industry. Cost of fish went up and so with other costs. We really do not have bangos surplus to merit canning even with a moderate-sized canning plant.

Expecting a possible surplus of bangos in the future with improved production techniques in our ponds and pens, development of canning of "garongin" size bangos into Spanish or French sardine style using 3-1/2 oz dinghy or quarter pound flats was done by the BFAR and UP Pilot Food Plant in Diliman, Quezon City. Work was also done at the College of Fisheries, UP by Prof. Ferrer and her students. The Confederation of Fishpond Producers initiated work on this. The results indicated feasibility of such venture, but with the high cost of bangos fingerlings and unsteady supply, aggravated by frequent floods in Central Luzon and Laguna de Bay, canning of bangos in Spanish sardine style to replace imported ones is still not advisable. "Galunggong" or round scad is still cheaper to use and more available in some fishing grounds in the Visayas.

Other bangos processed products made in a very limited scale locally are (1) split-dried products ("daeng"), (2) smoked whole bangos, (3) marinated split bangos popularized in Dagupan, Pangasinan, and (4) some variations of the above-mentioned products. Procedures on how to make these products can be obtained from the Bureau of Fisheries, Fish Preservation Division and the UP College of Fisheries.

Here are some remarks in connection with my TALK this afternoon.

(1) Generally, our handling of bangos catch fairly satisfies the local market requirements. This is so because we really do not have a surplus over the demand;

(2) Handling improvements over the present ones can be attained by closer supervision without entailing too much cost over the present cost of handling;

(3) We must be careful not to push too hastily quick-frozen products unless we have the proper facilities for transporting and storing them and

properly trained men to supervise or this might backfire on us, and the consumers prejudice on "hilado" products might not be overcome;

(4) For the present, when temporary local surpluses occur, processing bangos into simple processed products, such as marinated, split-dried, smoked and boneless bangos, should be improved and standardized by proper governmental agencies;

(5) Lastly, it is heartening to know that the PCAR and NSDB in a resolution dated May 7, 1974, approved a Project Proposal entitled "Utilization and Processing in Inland Fisheries" submitted by the NIST, BFAR, FTI and UP College of Fisheries.

The project is divided into:

(1) SUB-Project A - Standardization of canning procedures for bangos and other fish - NIST

(2) SUB-Project B - Standardization of drying/smoking and Curing of bangos and other fish - BFAR.

(3) SUB-Project C - Standardization of handling, icing and freezing of bangos and other fish - FTI

(4) SUB-Project D - Utilization of by-products of bangos processing and those of other fish - UP College of Fisheries.