
Quality aspects of dry salted shark available in markets of Kerala

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Dried products are preferred in most parts of our country particularly in areas where fresh fish is scarce. Marketing of both conventionally sun dried and dry salted fishes are common. Drying is the

age old practice of fish preservation which is least expensive and traditionally followed in rural areas. Dried fish products exhibit a long shelf life and altered texture due to its low water activity



(Andres *et al.*, 2005) and due to removal of water and other solubles and intake of salt (Ismail and Wootton, 1992). Quality of the dry salted fish depends on the quality and chemical composition of raw materials in general. Among the dry salted items there is a good demand for dry salted chunks of shark meat in Kerala. During dry salting process cut pieces of sharks are kept in alternate layers of salt and fish. These are often sun dried and transported to markets in baskets made of coconut leaves. In the case of small sharks they are split open, salted and dried in whole form. The major issues encountered in salt dried products available in markets are low quality as it is prepared from low quality raw materials, high content of salt, insect infestation and microbial contamination. Apart from that, the practice of curing in unhygienic environment, improper handling practice of processors and improper drying can affect the quality and safety of dry salted shark. In the present study ten samples of dry salted meat of shark marketed in Cochin, Alappuzha and Kottayam districts were collected and evaluated the biochemical and microbial safety aspects.

The higher is the water content, the higher is the a_w and higher is the susceptibility to spoilage. The moisture content of salted and dried shark were in the range of 42.45 to 51.43% (avg 47.44%) and is much higher than the recommended value of 35% (BIS : 2001) (Table 1 and Fig. 1). Presence of salt controlled the a_w of the product which ranged between 0.74 and 0.76 (avg 0.744).

A salt content upto 30% is recommended as per IS 14950: 2001. Inadequate salting and high moisture levels lead to unacceptable condition, thus affecting quality. Using fresh fish of acceptable quality, salting and drying in hygienic condition reduce the adverse effects due to microbial load especially *S. aureus* toxin. Proper packaging of salt dried shark meat while storage, distribution and marketing should be ensured to

Table 1. Biochemical and microbial quality of dry salted shark

Parameters analyzed	Mean values
Biochemical parameters	
Moisture (%)	47.44
Water activity (a_w)	0.744
Salt (%)	22.58
Sand (%)	0.302
Microbial parameters	
Aerobic plate count (cfu/g*)	4.24 log
Coagulase positive <i>Staphylococci</i> (cfu/g*)	0.43 log

* cfu/g - colony forming unit per gram



Fig. 1. Dry salted shark

reduce the harmful effects.

References

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