

# RACK DRYING OF FISH



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## RACK DRYING OF FISH

Sun drying is a traditional method of drying fish, either salted or unsalted. While small species of fish like anchoviella are dried without salting, other types are dried salted or unsalted depending upon their use. Traditional drying is a very crude and unhygienic method. Fish is dried on sandy beaches and other unhygienic areas causing quick spoilage. Losses due to attack by rodents, insects, microbes and fungi are usually heavy during storage in improper places and under defective packagings.

There is good demand for hygienically dried fish. CIFT has developed improved method for production of dried fish with and without salting.

### **Production of salted and dried fish**

1. Take fresh fish for salting.
2. Wash well in potable water. It is advisable to use water chlorinated upto 10 ppm. Keep the fish in ice till it is taken for further processing.
3. Split open the fish and remove intestine, gills, blood, dirt, etc. Some scores can be given on the flesh if it is thick. In the case of large fish, fillets of convenient size can be made. Wash the dressed fish in potable water. Use clean table for handling the fish.
4. Salt the fish in the ratio 1:3, 1:4 and 1:5 for large, medium and small fish respectively. Good quality salt should be used for salting. (Ref. BIS No 594-1981 Common salt for fish curing-2nd revision). Salting is done by stacking salt and fish in alternate layers. There

should be sufficient salt on the top layer. Keep the salted fish covered with any suitable material to prevent infestation by flies. Allow the salted fish to remain thus for 18 to 24 hrs.

5. After salting, take out the fish, rinse in the self-brine, wash further in freshly prepared salt solution and drain.
6. Spread the salted and drained fish first on the upper deck and then on the lower deck of the drying rack.
7. Dry the fish well to get required moisture level stipulated for each species of fish. (Ref. Table given below). Drying may take 1 to 3 days depending on the type of fish, the temperature and humidity of air, wind speed, etc.
8. Stack the dried fish for some time for cooling.
9. Pack the fish in polythene bags for consumer packs and in synthetic woven sacks for bulk storage.
10. Store in dry, cool and clean rooms.

Proper hygiene shall be maintained throughout the handling, processing, packing and storage of fish.

### **Recommended moisture level for a few dry-salted species of fish**

Name of fish	% by weight (max.)
Leather jacket	40
Horse mackerel	40
Mackerel	35
Seer	45
Shark	40
Surai (Tuna)	35
White bait	20

## **Production of dried Anchoviella**

Very small varieties of fish like anchoviella can be dried without salting. Process for drying anchoviella is given below:

1. Take fresh anchoviella, immediately after landing, in perforated bamboo baskets or any other suitable container and wash by agitating in clean sea water to remove mud and other dirt. If potable water is available, the cleaned fish can be given a further washing in it.
2. Drain well and spread on the racks for drying. First spread on the upper deck and then on the lower deck of the drying rack. Continue drying till the moisture level comes down to less than 20%.

About 3 Kg fresh anchoviella can be spread on 1 sq.m. space of the rack for drying.

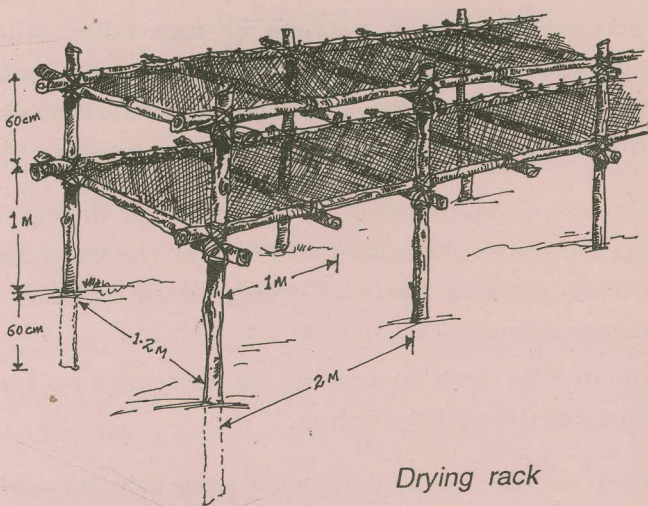
3. Keep the dried fish in shade for some time for cooling
4. Pack the dried and cooled anchoviella in convenient lots in polythene bags for retail marketing and gusseted woven sacks for bulk storage.

## **Fabrication of drying racks**

Any locally available material like bamboo, casuarina etc. can be used for making the racks as shown in the figure. Nylon webbing is used as base of the rack. Rack of two decks can be conveniently used for drying fish. The lower deck should be 1 m. above the floor. Minimum gap between two decks should be 60 cm. Width of the platform can be 1.2m and the length can vary depending on the availability of the drying area.

As the fish is dried by strong wind and high temperature

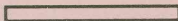
in the beach area, the material put on the lower deck also dries properly although drying rate is slower at the initial stage. In fact, the fish dried on the lower deck had better appearance compared to the one dried on the upper deck, probably as the former dries in light shade.



*Drying rack*

### **Transfer of technology**

Drying of anchoviella, as mentioned above, has been demonstrated in different fishing villages of Kanyakumari District, Tamil Nadu under the Bay of Bengal Programme. Kanyakumari District Fishermen Sangams Federation, Nagercoil is now producing and marketing rack dried anchoviella.



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