

# HARVESTING , POST HARVESTING TECHNOLOGY AND MARKETING

**FISH FILLETING**

**IV SEMESTER MSc ZOOLOGY**

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# FISH FILLETING

## FISH FILLETING

Fish fillets are strips of fish cut parallel to the back bone of fish. Seer, tuna, cat fishes, perches, mullets, thread fin beam, carps, shark, eel, Indian halibut, Jew fish ( Ghol fish )etc are suitable fish suitable fishes for filleting and freezing. These fishes are landed in large quantities in India.

Filleting can be done by hand or by using a filleting machine .

One important limitation of a fish filleting machine is non- capability of the machine to fillet all varieties and sizes of fish.

Although filleting machine is preferable for use in a factory, filleting by hand is also economical and can be followed by the industry.

Fillets may be with or without skin. The belly flaps are usually separated from the fillets as the belly flap tissue may discolour during frozen stage.

The quality of frozen fillets depends on the following factors.

1. Quality and freshness of raw material.
2. Processing and freezing procedures.
3. Hygienic conditions of the processing plant.
4. Method of packing.
5. Quality of packaging materials.

## PREPARATION OF FILLETS:

The following steps are take to fillet a fish;

- **Selection of fishes for filleting-** select fresh fish for filleting and wash it
- **Grade the fish according to size. Keep it in ice.**
- **Remove viscera ad wash thoroughly with potable water.**
- **Place the fish on its side o the work table. Cut with sharp knife from just behind the base of the pectoral fin round to back of the head. Cut toward tail along the lie of dorsal fin. Cut forward to clear the fillet from the ribs and cut over to the edge of the ribs towards the tail and remove the fillet**
- **Turn the fish over and separate the fillet from the other side of the fish.**

- To remove the skin , cut nick in tail of the fillet using a thin bladed knife larger than the width of fillet. Angle the knife slightly downwards and pull the skin across the knife while at the same time, making slight saw cutting movements with knife.
- Wash the fillets thoroughly with potable water.
- The fillets may be dipped in dilute brine for slight salting. Usually a dip of 15% NaCl for 15 to 30 seconds is practiced.

### BRINING:

- The fillets are dipped in brine (NaCl solution) to enhance their appearance and to reduce the amount of drip. The brine coagulates proteinaceous substances on the surface of the fillets and produce a protective elastic film which controls the drip formation in the fillets

## GLAZING

The filets is usually glazed so as to form a protective film of ice covering the surface area.

A sufficiently thick glaze prevents the evaporation of water from the frozen product ad also controls the oxidation of fat.

## Freezing of fillets

### ❖ BLOCK FREEZING.

Weigh the drained fillets in required lots (500 gm, 1 kg or 2 kg) ad pack in polythene lined waxed cartons .

Sufficient quantity of glazed (temperature around 1 to 3C )is poured.

The fillets are the packed in cartons and frozen at -35C TO -40 C using a plate freezer.

❖ IQF /Individually Wrapped in polythene(IWP):

The fillets ca be wrapped individually using polythene and frozen using a tunnel freezer or a contact plate freezer.

These products will not qualify for IQF status but for IWP.

❖ PICKED FISH MEAT:

When the fish fillets are prepared from the whole fish, some quantity of meat remain attached to the bones,



The picked fish meat can be used for preparation of cutlets, fish fingers, fish cakes, sausages etc

### ❖ FISH WASTES:

The remaining portion of the fish after separating the fillets and picked meat is considered as wastes and can be converted to fish meal.

### PROCESSING AND PACKING AS WHOLE FISH:

#### **Preprocess handling :**

If the fish is larger type, a deep cut is made in the throat , deep enough to cut the dorsal blood vessels of the fish.

The fish at this stage may preferably be in rigor.

Wash thoroughly in clean water.

Remove the gills and viscera. And wash thoroughly again

Ice the fish (1:1) in box, fish forming alternate layers with ice.

### **Handling for processing :**

The gutted and iced fish is washed thoroughly in chilled potable water and wrap individually in polythene.

It is frozen using a tunnel freezer or by IQF machine.

### **Packing and storage:**

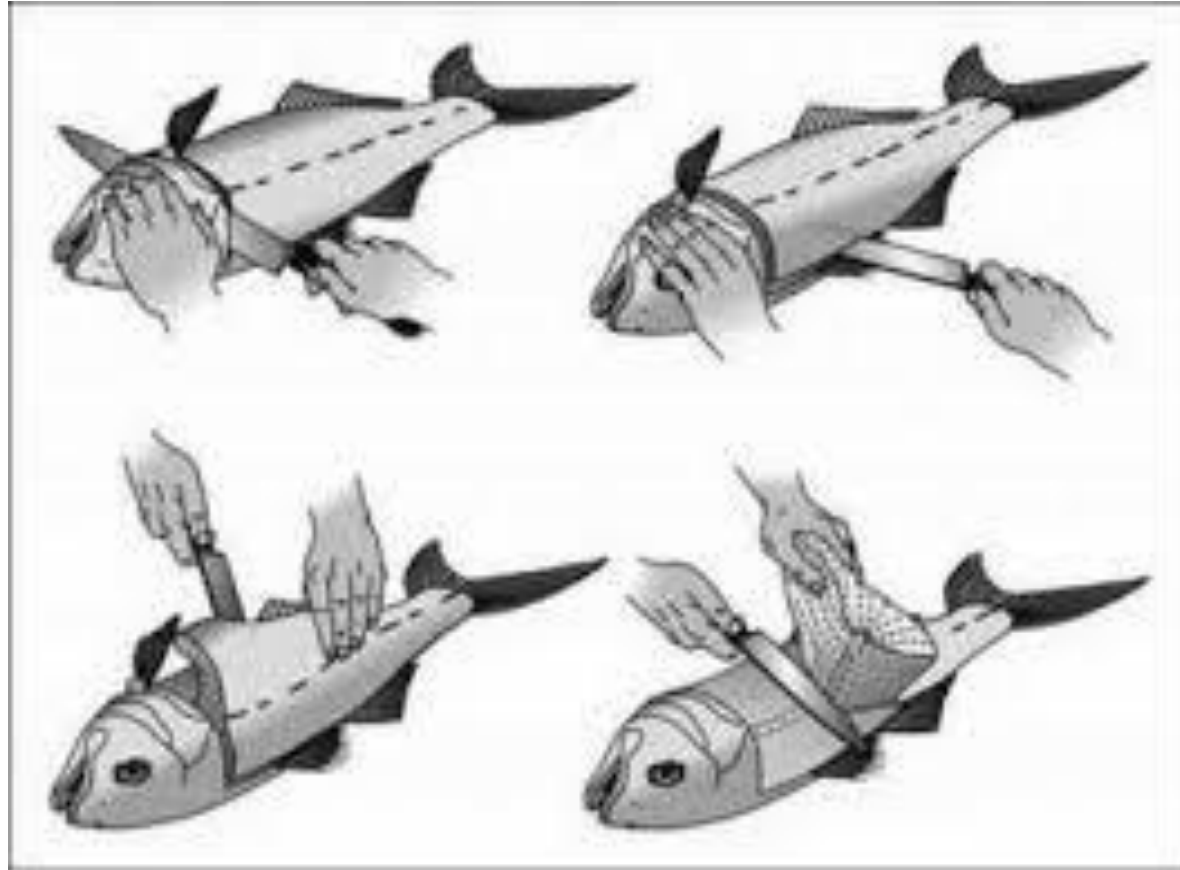
Pack the fillets / blocks / fish whole in waxed corrugated master cartons.

Stored in cold storages maintained at -23 degree C or below.

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# Plate freezer

