



Food Production

Chapter 1

FOOD PRODUCTION

STD XII (THEORY)

UNIT 1 : FISH COOKERY

(10 marks)

- Classification of Fish
- Composition & Nutritive value of Fish
- Selection of Fish & Shellfish
- Storage of Fish
- Cuts of Fish
- Names of Fish Preparation

UNIT 2 : MEAT COOKERY (BEEF & PORK)

(10 marks)

- Culinary Terms
- Cuts of Beef and types of Steaks
- Factors affecting Tenderness
- Doneness of Beef
- Cuts of Pork
- Signs of good quality Pork
- Storage of Beef & Pork

UNIT 3 : POULTRY

(10 marks)

- Selection of Poultry
- Diagram
- Definition of game
- Types of new birds used in cuisines
- Cooking time of Chicken for roasting
- Storage of Poultry Birds

UNIT 4 : PASTA & VEGETABLE COOKERY

(10 marks)

- Classification of Vegetables
- Selection and Storage of Vegetables
- Cooking of green vegetables without discoloration
- Introduction of Pasta
- Types of Pasta

- Diagram of types/shapes of Pastas
- Cooking of pasta
- Internationally famous dishes and preparations of pasta

UNIT 5 : LARDER, SALADS AND SANDWICHES

(10 marks)

- Introduction to Larder
- Definition
- Layout of larder/ Garde manger
- Essentials & functioning of a larder department
- Sub-sections of larder
- Classification and Parts of a salad
- Types of dressings
- Types of salads
- Introduction to sandwiches
- Parts of sandwiches
- Types of Sandwiches
- Rules to be followed while making a sandwich.

UNIT 1 : FISH COOKERY

- Classification of Fish
- Composition & Nutritive value of Fish
- Selection of Fish & Shellfish
- Storage of Fish
- Cuts of Fish
- Names of Fish Preparation

Fish is found in abundance in all natural waters like pounds, lakes, rivers, seas and oceans. Thousands of varieties of fish are available however all are not used for edible purposes. Fish differs from meat in that it has less connective tissue and no elastin hence easy to cook and digest. Also it is more perishable compared to meat or poultry so extreme care is necessary while holding fish after the moment it is caught. Fish is classified into different types depending on their structure and composition.

Classification of fish

Fish can be classified into different two types. According to their anatomy fish are classified into two types, according to the presence or absence of a vertebrate column.

1. **Fin fish or Vertebrate**: These fish have a vertebrate column and fins. Their skin is covered with scales, mucous, which protects the body. They are present in salt as well as fresh water. The quality of fish, its flavours depends on the type of water. Salt water fish such as shark, pomfret, mackerel, tuna have a stronger muddy flavours compared to fresh water fish such as sardines mullet, catfish etc. they are subdivided into
 - (a) **White fish**: These are mainly flat fish and contain oil only in the liver. Mostly these are deep sea fish e.g. Pomfret, Sole fish.
 - (b) **Oily fish**: These are mainly round fish and contain fat all over the body. The amount of fat varies from 1.5% to 20% in different varieties. These fish are often pigmented and tend to be surface fish e.g. mackerels sardines etc.
2. **Shell fish**: These fish are devoid of a vertebrate column and fins but have a protective hard covering called the shell. These are subdivided into
 - 1) **Molluscs**: These have a soft unsegmented body covered by calcified shell. The shell of molluscs increases at the rate of one ring per year to allow for the growth of the organism. Thus the age of the molluscs can be roughly estimated by the number of rings on the shell. They are divided into
 - a) **Bivalves**: Which have two distinctly separate shells joined by a ring like membrane. The movements of the shell are controlled by a strong muscle. When the muscle relaxes, the two halves of the shell fall open. The shell also opens when

the organism dies, thus exposing the content of the shell to contamination from outside resulting in quick putrefaction e.g. oyster, muscle, clams.

b) Univalves: These are recognized by the characteristic spiral formation of their shells, which unlike those of bivalves are not divided into two halves e.g. winkles, snail

2) Crustaceans: These have a segmented hard crust like shell over the back portion of their body and over the claws. The under parts of the body and legs are protected by a soft shell. The shells of crustaceans do not grow with the fish, unlike those of the molluscs, but are shed every year with a new one forming to suit their new shell.

Composition and nutritive value of fish

The composition of fish varies considerably according to the type of fish. In general fish is a rich source of nutrient like protein, fat, minerals and vitamins. Fish has very little connective tissue and is hydrolyzed easily. Hence the structure of fish is very delicate and tender even in the raw form

- 1) Protein: fish is an excellent source of protein and contains approximately 20% the biological value of fish protein is as good as that of meat protein.
- 2) Fat: It varies from 1 to 25%. The fat content depends on the variety of fish, stage of maturity and the season. It is mainly deposited in the liver and viscera. Fat of fish is rich in unsaturated fatty acids and is readily digestible.
- 3) Minerals: fish contains a higher % of minerals than meat. It is a good source of copper, sulphur and phosphorus. Some variety of fish is a good source of iron and calcium. Some varieties of crabs are an excellent source of calcium.
- 4) Vitamins: Fish liver oil is the richest sources of vitamins A and D. It is fairly good source of thiamine, riboflavin and niacin. vitamin C content of fish is very low.
- 5) Water: water content in fish is very high which ranges from 70-80% and hence is one of the reason responsible for the high perishability of fish.

Selection of fish

Selection of fresh fish is very necessary for the buyer to understand how to select fresh fish as fish gets spoilt very easily as compared to meat. In our country this problem is more acute as the hot and humid weather increase the speed of deterioration. When buying the fish the following points should be looked for to ensure freshness.

Quality points for buying lean fish:

- 1) Eyes should be bright and clear, full and protruding.
- 2) Gills should be bright pink to red in colour
- 3) Flesh should be firm, resilient so that when pressed the impression goes quickly. It should not limp.
- 4) Skin should be shiny, and not dull.

- 5) The fish should smell fresh and there should be no unpleasant odour.
- 6) Scales should be firm and plentiful

Quality points for buying Shellfish:

Some type of shellfish may cause trouble to people who have allergies. So care must be taken while buying it. As far as possible shellfish should be bought in seasons and when bought should be alive. If they are not alive when bought then the following points should be considered.

- 1) The claws of crabs should be springy and not hanging down and both the claws should be attached to the body.
- 2) The eyes should be bright.
- 3) Shrimp, prawns shell must be firm and crisp.
- 4) Live lobster, crayfish and crabs should move their legs, and the tail of the lobster should spring back when stretched.
- 5) Shellfish should be smelled fresh.
- 6) Oyster, mussels and clams should have tightly closed shell.

Different cuts of fish

- (1) **FILLET**: It is the cut of fish which is completely free from bone and skin. Flat fish yields four fillets and round fish yield two fillets. They are suitable for poaching, shallow and deep frying, grilling and baking.
- (2) **MIGNON**: This is the fillet of fish folded like a cone.
- (3) **SUPREME**: This term is generally applied to fillet of large fish cut into small pieces or portion on the slant. They are suitable for poaching, shallow, deep frying, grilling and baking.
- (4) **GOUJONS & GOUJONNETTES**: This term refers to fillet of fish cut on the slant into small strips approximately 6-8cm x 1cm. Generally applying to fillet of small fish. Goujonettes are a smaller version of goujons and are cut into strips 3-4cm x 1/2cm. Both are suitable for deep and shallow frying and are sometimes poached.
- (5) **TRONCON**: This is a slice of fish weighing 180-280gms on the bone from a large flat fish. Such as haricots turbot or brills. They are suitable for boiling and grilling.
- (6) **DARNE**: This is a slice of fish weighing 180-280gms on the bone from a large round fish. Such as cod, salmon, kingfish, etc. They are suitable for boiling grilling and shallow frying.
- (7) **DELICE**: This is a variation of a fillet. Small flat fish, which consists of a quarter of head end and a quarter of the tail end of the fillet folded under the skin side being folded inwards. They are suitable for poaching.
- (8) **PAUPIETTE**: This is another variation of fillet of small flat fish, which consists of a fillet spread with a fish stuffing and rolled skin side inner. The fish stuffing consists of finely minced fish combined with egg white and cream. They are suitable for poaching.

STORAGE OF FISH:

Ideally, fish should be consumed as fresh as possible to retain its flavor and texture. However, most fish can be frozen for later use but only after cleaning it of all internal organs. Freezing must take place at 0°C (-18°F) and must never be re frozen after defrosting. For very short time storage, fish must be stored at refrigerated temperatures of 3-5°C. Fish should be cooked soon after cleaning and marinating.

Certain fish such as clams need special storage (in salt water). Proper attention must be paid to the storage of fish, as it tends to deteriorate and spoil very quickly.

When storing fish in the refrigerator, take care that other foods such as milk do not absorb the fishy odors!

COOKING OF FISH

Boiling: Can be done to obtain a court bouillon or when the fish needs to be flakes for a salad or for cutlets.

Steaming: Is ideal for large fish and to retain nutritive value.

Grilling: Usually oily fish is good for grilling, as it possesses natural fats.

Frying: White fish and be pan, shallow or deep fried normally with a coating.

Baking: Is suitable for medium and large fish and can be stuffed.

FISH DISHES AND THEIR ACCOMPANIMENTS.

Well known fish dishes

1. Fish Meuniere:- Fish dredged in seasoned flour and shallow fried. Any fish whole or filleted may be cooked by this method.
2. Fish Daria:-As for meuniere with a sprinkling of small pieces of cucumber which are carefully cooked in 25gms of butter in a small covered pan or blanched in boiling salted water.
3. Bretonne:- As for fishmeuniere, with a few pickled shrimps and cooked sliced mushrooms sprinkle over the fish.
4. Saint German:- Fish dipped in batter rolled over in bread crumbs and grilled. Served with béarnaise and potatoes.
5. Orly:- Fish dipped in batter and deep fried and served with tomato sauce.
6. Colbert:- Fish dipped in egg, coated with bread crumb & deep fried.
7. Bercy: Fish poached with chopped shallots, parsley, fish stock & white wine finished with white wine sauce & glazed. (For example) fillet de sole bercy
8. Bonne Feme:- As for bercy with the addition of sliced mushrooms and glazed. (for example) supreme de turbot bonne feme.

9. Veronique:- Poached with white wine sauce, glazed and garnished with skinned grapes. (for example) sole Veronique
10. Mornay:-Poached, coated with cheese sauce and glazed. (for example) fillet depomfretmornay
11. Florentine:- Poached and dressed on a bed of spinach, coated with mornay sauce and glazed (for example) supreme de turbot Florentine.
12. Hollandaise:-Plain boiled and served with hollandaise sauce and boiled potatoes (for example) troncon de turbot hollandaise.
13. Princess:- Poached coated with white wine sauce garnished with asparagus heads and slices of truffles. (for example) delice de sole princess.

