

UNIT

1

## Indian Cuisine

### Structure

- 1.1 Introduction to Indian food
- 1.2 Spices used in Indian cookery
- 1.3 Masala mix used
- 1.4 Basic gravies
- 1.5 Famous cuisines of India(concise)

### Learning Objectives

After studying this unit, the student will be able to

- Understand about various Indian cuisine
- Understand about different spices used in indian cookery
- Know about famous cuisines of India

### 1.1 Introduction To Indian Food

Indian cuisine consists of a wide variety of regional cuisines native to India. Due to the range of diversity in soil type, climate and occupations, these cuisines vary from each other and use locally available spices, herbs, vegetables, and fruits. Indian food is also heavily influenced by religious and cultural choices.

The development of these cuisines has been shaped by Hindu and Jain beliefs, particularly in vegetarianism which is a common dietary trend in Indian society. There was also Islamic influence from the years of Mughal and Delhi Sultanate rule, and Persian interactions on North Indian and Deccan cuisine. Indian cuisine has been and is still evolving, as a result of the nation's cultural interactions with other societies.

Historical incidents such as foreign invasions, trade relations and colonialism have also played an important role in introducing certain food types and eating habits to the country. For instance, potato, a staple of North Indian diet was brought to India by the Portuguese. Indian cuisine has also shaped the history of international relations with the spice trade between India and Europe is often cited by historians as the primary catalyst for Europe's Age of Discovery. It has also influenced other cuisines across the world, especially those from South east Asia and the British Isles.



**Fig 1.1 Introduction To Indian Food**

Staple foods of Indian cuisine include Jowar, rice, wheat, and a variety of lentils, especially masoor, toor, urad and moong. Lentils may be used whole, or split. Split lentils, or dal, are used extensively. Some pulses, such as channa, Rajma or kidney beans, lobiya are very common, especially in the northern regions.

Many Indian dishes of different regions are cooked in different oil mediums. Peanut oil is used in Andhra and Maharastra regions. Mustard oil is more commonly used in north and northeastern part of india. Coconut oil is used widely along the western coast, especially in Kerala. While gingerly oil is common in the south as it imparts a fragrant nutty aroma to food. In recent decades, sunflower and soybean oils have become popular across India. Hydrogenated vegetable oil, known as Vanaspati ghee, is another popular cooking medium. Desi ghee, is used frequently, though less than in the past.

## 1.2 Spices Used In Indian Cookery

India has been known as the land of spices. In fact had it not been for the famous 'spice route', India would not have been the preferred trade destination for the Portuguese, British, Persians and other people from all over the world, and neither would it have been invaded by so countries as well. Indian cuisine without spices holds little meaning, and no Indian dish is complete without a smattering of spices. However, each region loves to use specific spices in its dishes, so much so that no state can manage to replicate what the other state has to offer to your taste buds. While -South Indian states are known for their excessive -use of tamarind, Northern states are known for their attachment to cumin seeds, similarly the eastern part is known for its preference to a mixture of 4 to 5 spices known as 'panch poran', and use of mustard seeds. The list of spices that will be seen in every masala box

**Turmeric or Haldi Powder :** Native to tropical South Asia, when mixed with a little red chilli powder, turmeric adds a distinct flavour and colour to the dishes. This powder is made from grinding turmeric root. Turmeric is well known as an antioxidant and cure for cough, cold and even cancer.



Fig 1.2 Turmeric or Haldi Powder

### Cumin Seeds or Jeera



Fig 1.3 Cumin Seeds or Jeera

Native to Syria, cumin seeds are used in all kind of dishes worldwide, but Indians seem to have a special fondness for it. A majority of Indian dishes (barring some south Indian dishes) start with a tempering of cumin seeds in heated oil. Cumin seeds apart from adding flavour to the dishes, also helps in aiding digestion.

**Red Chili Powder or Lal Mirch Powder :** A native of the America, chillis have become so much a part of Indian households, that they are no more associated with the Latin American countries. Red chili powder holds its spiciness on the kind of red chili used.



**Fig 1.4 Red Chili Powder or Lal Mirch Powder**

**Mustard Seeds :** Ranging from Reddish brown to black in appearance, this seeds are commonly used in Indian cooking, and even in the preparation of pickles, and other condiments, and sometimes even as curry. The paste made from it has a very pungent taste.



**Fig 1.5 Mustard Seeds**

**Asafetida or Hing:** It is the dried gum resin of an east Indian plant. It should never be eaten raw, as it has a completely pungent taste and odour when raw. Only when it has been dried over a long period of time, does it become fit for use in dishes. Usually just a pinch is used for cooking mainly fish, vegetables and making Indian pickles.



**Fig 1.6 Asafetida or Hing**

**Tamarind :** Tamarind is found in bean like structure used mainly to add a sour taste to many Indian curries.



**Fig 1.7 Tamarind**

**Dry Mango Powder or Aamchur**



**Fig 1.8 Dry Mango Powder or Aamchur**

Aamchur powder is another very essential part of the Indian cooking since it adds a tangy flavor to the dish. It is made after slicing unripe mangoes, which have been left to dry in the sun for a long period of time, and then ground into powder. It is also used in chats around India.

**Coriander :** Coriander is an annual herb that is used very widely in Indian kitchen. Different parts of the coriander are edible but the fresh leaves and dried seeds are commonly used in cooking. Chopped coriander leaves are a garnished for cooked dishes while the dry coriander seeds are used whole or as ground form. Coriander roots are used in various soups as it has intense flavour.



**Fig 1.9 Coriander**

**Garlic and Ginger :** A combined paste of ginger and garlic adds a zing to all kinds of Indian dishes. Garlic and ginger are known for their anti oxidant properties and also used in various herbal preparations.



**Fig 1.10 Garlic and Ginger**

**Fenugreek Seeds or Methi Seeds :** These small, flat, squarish, brownish-beige seeds are essential in curries, but because they have a slightly bitter flavor they must be used in the stated quantities. They are especially good

in fish curries, where the whole seeds are gently filed at the start of cooking; they are also ground and added to curry powders; The green leaves are used in Indian cooking and, when spiced, the bitter taste is quite piquant and acceptable. The plant is easy to grow.



**Fig 1.11 Fenugreek Seeds or Methi Seeds**

**Nutmeg or Jaiphal:** It is usually used in its powdered form. Grated freshly, using the whole or half nutmeg with a very fine grater. Many times it is used in flavoring Indian sweets. But it may be used in savory dishes as it is used in the making of some Garam Masalas. It is recommended for insomnia, irritability and nervousness.



**Fig 1.12 Nutmeg or Jaiphal**

**Sesame Seeds or Til :** Sesame seeds are used in many masalas or are used to flavor the recipe by giving a tadka” with the seeds. It is also used in some chutney.



**Fig 1.13 Sesame Seeds or Til**

**Fresh Mint Leaves or Pudina :** Although there are many varieties, the common, round-leaved mint or peppermint leaf is the one most often used in cooking. It adds flavor to many curries, and mint chutney is a favorite accompaniment to kebabs and a great dipping sauce for snacks.



**Fig 1.14 Fresh Mint Leaves or Pudina**

**Curry Leaves or Kaddipatta**



**Fig 1.15 Curry Leaves or Kaddipatta**



Sold dried as well as fresh. They are important in curries. The tree is native to Asia, the leaves are small and very shiny, and though they keep their flavor well when dried they are found in such abundance in Asia that they are generally used fresh. The leaves are fried in oil, until crisp, at the start of preparing a curry.

**Fennel Seeds or Saunf :** These light green oval shaped seeds have been known to possess digestive qualities. In India, they are roasted, sometimes lightly coated with sugar and eaten after meals as a mouth freshener and to stimulate digestion. They are also recommended for nursing mothers, as they have been known to increase the milk supply. Used successfully in many curries and 'indian pickles'. Today you will find sugar coated "green supari mixtures containing 'saunf' in Indian Grocery stores.



**Fig 1.16 Fennel Seeds or Saunf**

### **1.3 Masala Mix Used**

There are different masala mix in the Indian cuisine. Popular mixes are as follows.

#### **Sambar masala**

**Dry red chillies :** 1/2 kg

**Dhania/ Coriander seeds :** 1/2 kg

**Urid dal :** 1/4 cup

**Channa Dal :** 1/4 cup

**Toor Dal :** 1/4 cup

**Rice grains :** 1/4 cup

**Black pepper corns :** 50 grams

**Cumin seeds :** 50 grams

**Mustard seeds** : 30 grams

**Fenugreek seeds** : 10-20 grams

**Katti perungayam / Asafoetida** : 20 gram, crushed (see notes)

**Fresh Curry leaves** : a big bunch, yields 1 cup approximately, optimum packing.

**Oil** : 1 teaspoon

### Method

- Sun dry all the ingredients for 5 hours separately.
- On the same day, collect all of them and dry roast them in heavy bottom pan one by one separately until the ingredients gives a wonderful aroma. Rice grains should be opaque. I forgot to take picture of dry roasting coriander seeds and dry red chillies. Except those two pictures, all the other pictures are given here.



**Fig 1.17 Masala Mix Used**

- Dry roast curry leaves until they turn crisp.
- Heat a teaspoon of oil and fry crushed, sun dried asafoetida for few minutes in another pan.
- Allow the roasted ingredients to cool completely to room temperature.
- Grind it using mixer/food processor to a fine powder. As I prepare it large quantity, I often grind them at Flour mills / Grinding mills.
- Allow the ground powder to cool to room temperature by spreading it in a wide plate.
- Store it in a clean dry air tight container.

**Rasam Powder**

Toordal	2 tblsp
Black pepper	1 tblsp
Red chilli	5
Vendayam(fenugreek seeds)	1/2 tsp
Cumin seeds	1 and 1/2 tsp
Coriander seeds	1 and 1/2 tblsp

**Method**

- Dry roast all the ingredients in a medium low flame till they get evenly browned.
- Allow this to cool and grind in a mixer into a fine powder.
- After some time store this in a air tight container.

**Pav Bhaji Masala**

**Black cardamoms :** 4

**Coriander seeds :** 1/4 cup

**Cumin seeds :** 1/8 cup

**Whole black pepper :** 1/8 cup

**Fennel seeds :** 1 and 1/2 tbsp

**Whole red dry chillies :** 10

**Cinnamon :** 10 1/2 inch pieces

**Dry mango powder :** 2 tbsp

**Method**

- Dry roast all the ingredients till golden brown (except dry mango powder) in low medium heat. Roast it till nice aroma is released. Then add mango powder and roast for a minute.
- Then cool down completely and then grind it to a fine powder. Cool down and store in a clean dry container.

- Make sure the container is clean and pat dry so that the masala keeps well for more time.

### Garam Masala

Elachi/ cardamom	2 tblsp
Pepper	2 tblsp
Cloves	2 tblsp
Star anise	3 - 4
Cinnamon	4 sticks (1 inch)
Nutmeg	a quarter or half
Bay leaves	2

### Method

- Dry roast all the ingredients in a medium low flame till they get evenly browned.
- Allow this to cool and grind in a mixer into a fine powder.
- After some time store this in a air tight container.

## 1.4 Basic Gravies

Indian cuisine revolves around six basic gravies preparing different dishes commercially they are

### 1. Makhni gravy

Prepared primarily with tomatoes and without or very less onion. Makhni gravy is mainly used in the preparation of murg makhni and paneer makhni where simply the pieces are simmered in the sauce and served .Its generally used in measured combination of other basic sauces to create some most famous delicacies like chicken tikka masala

### 2. Tomato onion gravy

The gravy is a base to endless dishes like paneer lababdar where the paneer is simmered in the gravy with extra load of cream to look orange in colour and otherwise it can always be used in measured combination with other basic sauces to create ever favourite dishes like chicken do pyaza and aloo dum masala.

### 3. Brown gravy

This gravy is generally used to make basic curries like chicken curry or egg curry where the key ingredient is sauteed in oil and further simmered in this basic sauce till cooked or it can be used in proportional quantities with other basic sauces to create delicacies like matar paneer. Here primarily brown gravy and a dash of white gravy gives a required taste of matar paneer.

### 4. White gravy

This gravy is generally used to prepare rich dishes like shahi paneer dishes where the paneer cubes are simmered in the sauce else it is also used in measured combination of other basic sauces to create ever favourite dishes like qorma and pasanda.

### 5. Yellow gravy

This is rich gravy with yellowish colour which helps in making a beautiful product when used alone or in combination of other basic gravy.

### 6. Kadhai gravy

This is the only gravy which is used alone and not in combination of other ingredients. The six flavours mentioned above are obtained by sugar, tomatoes, crushed coriander, ginger, salt and spices.

## 1.5 Famous Cuisines Of India(Concise)

It is true of Indian cooking as it is of the other classic cuisines, that whilst some of the food is exotic, most of it is simple and just delicious. What distinguishes Indian cuisine from others is that on the one hand there are elaborate and rich meat preparations; on the other, there is the exquisite, but simple to prepare, vegetarian fare. The variety is the envy of the world, as is the range of tastes; from the sublime mild to the pungent hot. Most important, there is a delicacy for every occasion, each region boasting of a distinctive style of cooking to go with its extensive repertoire.

### 1.5.1 Kashmir Cuisine

Traditional Kashmiri cooking is called Wazawan and comprises mostly non-vegetarian dishes. It is rich and aromatic with a wonderful unique flavour. Most Kashmiris including the Brahmins (Kashmiri pandits) are meat-eaters. The Kashmiri Cuisine is mainly divided between two main communities i.e. Kashmiri Pandit and Kashmiri Muslims. Kashmiri Pandits are non-vegetarian, but they do not use onion and garlic in their traditional dishes. An unavoidable ingredient of Kashmiri Cuisine is curd and Asafetida (hing). Kashmiris use curd in almost all dishes except certain kebabs. Curd helps to reduce the spiciness, imparts tartness

and also gives smooth creamy consistency. Brahmins and Kashmiri pandits (Hindus) have generally been great meat-eaters and prefer goat, especially young goat.

Kashmir has developed its own specialties in cooking. Locally grown varieties of rice are sweetly fragrant and very light. All the dishes are built around the main course of rice. The delicious saag is made from a thick-leafed green leafy vegetable called hak that grows throughout the year. Lotus stem is also an important produce for boat-dwelling people and makes a very good substitute for meat. Morel mushrooms called gucchi are harvested and consumed fresh in summer. They are expensive, therefore used only for specific religious occasions and wedding feasts. Corn bread is an alternative for rice.

Streams and lakes have influenced the Kashmiri cuisine. Fresh fish is a favourite. Smoked meat, dried fish and vegetables are stored for use in winter. A special masala 'cake' is made from spice-blends, onions and locally grown chillies that can be stored for a long period of time and used in flavouring curries. Sauces are made from dairy-rich products. The fruits and nuts grown from the valley are used lavishly in the daily menus.

### **1.5.2 Punjabi Cuisine**

Punjab got its name because of five rivers wet this area. It is also known as the granary of the subcontinent. Wheat and maize are the staple food grains that the people of Punjab depend on for their nourishment. All lentils, especially black gram and yellow gram, are a part of Punjabi cuisine. Food of Punjab is wholesome and very rich in taste and texture. In Punjab, the tandoor is much more than versatile kitchen equipment. The tandoor is used for cooking roties, paranthas, naan, kuicha and for cooking non-veg, dishes like tandoori chicken, tandoori jhinga. The food of Punjab usually has a thick creamy consistency. They use desi-ghee and white butter in almost all dishes. Milk and milk products are available in abundance like, paneer, curd, cream etc. As we all know that Punjab is a land of agriculture and one of the main crops of Punjab is mustard or sarson and this is used to make the famous dish of Punjab i.e. Makki ki roti and Sarson ka Saag, roti is prepared with maize flour. Traditionally, meat dishes are prepared by menfolk, mostly on holidays, with a great deal of flair. The women are, by and large, vegetarian though they are not averse to cooking meat. Other holiday favourites include stuffed paratha with yoghurt, lentils (dal or red kidney beans) with pulao and, occasionally poori aloo.

### **1.5.3 Mughalai & Awadh Cuisine**

Mughlai cuisine is a style of cooking developed in the Indian subcontinent by the imperial kitchens of the Mughal Empire. It represents the cooking styles

used in North India , Pakistan, Bangladesh and the Indian city of Hyderabad. The cuisine is strongly influenced by the Persian cuisine of Iran, and has in turn strongly influenced the regional cuisines of Kashmir and the Punjab region. The taste of Mughlai cuisine vary from extremely mild to spicy, and is often associated with a distinctive aroma and the taste of ground and whole spices. A Mughlai course is an elaborate buffet of main course dishes with a variety of accompaniments.

Awadhi cuisine is from the city of Lucknow, which is the capital of the state of Uttar Pradesh. The cuisine consists of both vegetarian and non-vegetarian dishes. Awadh has been greatly influenced by Mughal cooking techniques, and the cuisine of Lucknow bears similarities to those of Persia, Kashmir, Punjab and Hyderabad; and the city is known for Nawabi foods. The bawarchis and rakabdars of Awadh gave birth to the dum style of cooking or the art of cooking over a slow fire, which has become synonymous with Lucknow today. Their spread consisted of elaborate dishes like kebabs, kormas, biryani, kaliya, nahari-kulchas, zarda, sheermal, roomali rotis, and warqi parathas. The richness of Awadh cuisine lies not only in the variety of cuisine but also in the ingredients used like mutton, paneer, and rich spices including cardamom and saffron.

The richness of Awadhi cuisine lies not only in the variety of cuisine but also is the ingredients used in creating such a variety. The Chefs of Awadhi transformed the traditional dastarkhwan with elaborate dishes like kababs, kormas, kaliya, nahari-kulchas, zarda, sheermal, roomali rotis, and parathas.

Awadhi cuisine has drawn a considerable amount of influence from Mughal cooking style and bears resemblance to those of Hyderabad and Kashmir. The cuisine consists of both vegetarian and meat dishes that employ the dum style of cooking over a slow fire that has become synonymous with Lucknow.

### **Difference between Mughal and awadh cuisine**

Mughlai food is known for its richness and exotic use of spices, dried fruit, and nuts. The Mughals did everything in style and splendor. Since they ate very rich food they reduced the number of intake during the day. Mughlai dishes as they are called have lots of milk and cream with spices to make rich and spicy meal that is the reason why Mughlai recipes are rich in fat, carbohydrates and proteins.

Awadhi food does not use over a hundred spices as some claim, but use a handful of uncommon spices. The slow-fire cooking lets the juices absorb into the solid parts. In addition to the major process of cooking food in Awadhi style, other important processes, such as marinating meats, contribute to the

taste. This is especially the case with barbecued food that might be cooked in a clay oven or over an open fire. Fish, red meats, vegetables and cottage cheese may be marinated in curd and spices. This helps to soften the taste and texture of them as well as remove any undesired odors from the fleshy materials. They were often cooked on tawa, the flat iron griddle, as opposed to Mughlai influence and bear a testimony to the local influence and convenience.

Difference between Awadhi and Mughlai kebabs is that, while the former is usually cooked on the tawa, the latter is grilled in a tandoor. This gives the difference in flavour

#### **1.5.4 Rajasthani Cuisine**

Rajasthan is the land of forts, fairs and festivals. In the Royal Kitchens of Rajasthan the preparation of food was a very serious matter and was raised to the level of an art form. In Rajasthan a professional Brahmin cook was called Maharaj. He is the only person who is responsible for the whole kitchen and is only one who is allowed to enter into the kitchen.

Rajasthan cuisine was influenced by its climate, availability of raw material and also by the life styles of Maharajas, the love for hunting has been responsible for shaping the culinary art of game cooking, the another part of Rajasthan cuisine is the vegetarian cooking of the Maheshwaris of Marwar or Jodhpur. Maheshwaris do not use garlic and onion for their dishes. There are a number of grains which are grown in Rajasthan-like bajra, makkai, jawar and wheat, dried lentils and beans are also very popular. Gram flour is used to make gatte and pakodi. Jewar, Bajra and Makkai are used to make rotis and wheat is used to make Bati (dal-bati churma). The staple diet of locals is very simple, like bajre ki roti with lasoon ki chutney as they think that garlic helps to safeguard against the winds. In Maheshwari Cooking, Mango Powder and Asafoetida are an integral part of cuisine, both ingredients act as a major substitute of tomatoes, garlic and onions. In Rajasthani cuisine, people use a lot of pure ghee is the medium of cooking, due to the scarcity of water, they use milk or butter milk.

#### **1.4.5 Gujarati Cuisine**

Gujarat is a land of all the religions like Jainism, Islam, Buddhism, Zoroastrianism (Parsees). Population of Gujarat are mainly vegetarian, due to the influence of Jains and Buddhists except Parsees and Bohras (Muslim Community). Bohras are very famous for their beef preparations. In Gujarat, the staple food is millet. Geographically, Gujarat is divided into three main regions i.e.

- Kathiawari and Kutch



- Southern Gujarat (Surat)
- Saurashtra

Kathiawari and Kutch foods are very famous for their spicyness they use red chilli powder and people of Southern Gujarat also like spicy food but they prefer green chillies. People from Surat use gur (jaggery) in their cooking and this gives a sweet tangy flavour to their dishes. Southern part of Gujarat i.e. Surat has a plenty of green vegetables and fruits and this all is because of proper rainfall in Southern Gujarat. In Saurashtra, sugarcane, wheat, millet, pulses, vegetables are available in abundance. The use of jaggery is because of the abundantly grown sugar-cane. The food of Saurashtra is mainly dominated by pulses and accompanied by sweets.

For a taste of traditional Gujarati cuisine, one has to try the typical Gujarati thali that consists of a variety of dal, kadhi, two or three vegetables and pulses, salad savouries, sweets, pun or chappati, rice, chutneys, pickles and papad. Farsan or snacks form an essential part of the Gujarati diet. These are prepared and stored for a time and are then offered to welcome guests. Suratis are also famous for their vaghar which is the tempering of foods. Vaghar, gives food a distinctive flavour. Asafoetida is used in all vaghars, as it helps in reducing the gas in the body.

### 1.5.6 Maharashtra Cuisine

Like most of the coastal states of India, Marathi food uses lots of fish and coconut. As in all other parts of India, there is an enormous variety of vegetables in their regular diet. Grated coconuts spice many kinds of dishes, but coconut oil is not very widely used as a cooking medium. Peanut and cashew nut are widely used in vegetables. Peanut oil is the main cooking medium. Maharashtrians eat both wheat and rice, but rice is given a place of prominence. It is used in every form imaginable, from steamed rice, flour dumplings (modaks) served on feast days to the delicate rice flour biscuits (cookies) called anarsa that served on Diwali.

Ratnagiri, a district of Maharashtra, has the distinction of producing the best mango in the entire world, called the Apus or Aiphonso.

The Maharashtra meal is eaten in large metal plates. Most of the food is already on the plate, neatly laid out in a very special order, all vegetarian. Each item has its designated place on the plate, like the numbers on a clock. The left side is for seasonings, relishes and savouries, the right for vegetables, split peas and sweets.

While the foods of certain Brahmin communities may be classified as restrained and vegetarian, one has only to look at the extravagance and richness of the diet of the Marathas headquartered in Kohiapur or the spicy ebullience of that of the coastal fisherfolk to realise that in meat, even within the state of Maharashtra, there is a lot of diversity. Maharashtra is divided into 5 main regions:

- **Vidharbha**

Vidharbha is situated at the North Eastern Part of the Maharashtra. Vidharbha includes the winter capital—Nagpur and other major cities. In India, best quality oranges come from Nagpur. In this region, most of the population likes vegetarian food with mild flavour.

- **Kohlapur**

Kohlapur is situated at the South Eastern part of the Maharashtra. People of Kohlapur like spicy food with lots of chillies like Ravan Pithli, Pandra Vassa etc. Due to the preference of Non Vegetarian, the meat cookery is highly developed in this region.

- **Maratwada**

Maratwada is situated at the eastern part, just below the Vidharba, people of Marathawada like spicy food like Kohlapur. They add lot of chillies and garlic in their dishes. Marathawada is also popular for its homemade pickles and chutneys.

- **Western Ghats**

The Western Chat is situated at the North West Coastline along the Arabian Sea. The major cities which fall under Western Chat are Mumbai, Nasik, Pune etc. The people of this region show their preference towards moderately spiced foods. Fish and other seafood are also very popular. Bombil is a variety of dried fish which is very popular in this region. We can say that the Western Chats are birth place of Indian fast foods like Misi, Vada Pao, Pao Bhaji etc.

- **Konkan**

Konkan is situated at the Southern tip of the Western Coast—Kolhapur and Ratnagiri are some of the important cities which comes under Konkan. Ratnagiri is world famous for its Aiphanso Mango. Cookery of this region shows an influence of Karnataka, as they use lots of coconut in their dishes so coconut act as an important ingredient. People of this region use kokum (amsul) instead of tamarind to impart tangy flavour of the dishes. People of Konkan like both veg. and non veg. dishes.

### 1.5.7 Goan Cuisine

Goan cuisine is a fusion of Christians, Hindus and Portuguese Cuisine, Goan is mainly non-vegetarian. Goa has an over hundred kilometers coastline along the Arabian Sea, being a coastal region there is Goan who is not familiar with eating fish and seafoods like prawns, lobster, crabs, pomfrets etc. Goans prefer rice instead of wheat and they also use coconut milk in plenty, due to the abundance of coconut. Coconut is an essential ingredient of Goan Cuisine.

The other meats which are preferred by Goans are Pork, Lamb and Chicken. The main features of Goan Cuisine are: they use a lot of small red chillies in their dishes, which make dishes too spicy. Kokum is another important ingredient, it is sour, deep red colour fruit which imparts sharp and sour flavour, kokum is mainly used by Hindus. Christians prefer vinegar instead of kokum in their dishes. Goans do not have a sweet tooth, but some of the most famous Goan Sweets are Bibinca and Dod. Bibinca is a sweet dish which is made by Pancakes baked one over another, traditionally it should have 16 layers. These pancakes are made up of coconut milk, flour, sugar, egg and nutmeg. Dodol is a jaggery flavoured fudge made from palm, jaggery, rice flour and coconut milk. Feni is an integral part of every Goan, Feni is a locally brewed wine. Goans make Feni with cashew nut and every Goan enjoys it with their meal.

### 1.5.8 Hyderabad & Andhra Cuisine

The people of this region are predominantly Muslim and Hindu, therefore their habits show a clear distinction, although similar in many ways. The Hyderabad Muslims got their food habits from the Moghuls while the Hindus had their own distinctive style, as can be seen from a number of preparations like Bagare Baigan, Biryani, etc. The cuisine of Andhra Pradesh is reputedly the spiciest and hottest of all Indian cuisines. The cuisine includes both the original Andhra cooking and the Hyderabad cuisine with its Mughlai influence. It is the former which is red hot. The Hyderabad Muslim community prefers a liberal use of red meats and almost all their gravies are made up of rich ingredients. One of the most characteristic features of the Hyderabad cuisine is the use of tamarind as a souring agent, unlike lime used by the Moghuls. Early mornings begin with Nahari a lamb stew made from lamb trotters seasoned with cassia buds, cardamom and potli ka masala (which includes sandal wood, khas roots and dried roses). This is eaten with sheermal, a Hyderabad bread. The richly flavoured Kacchi Biryani is prepared with tender, marinated lamb and rice cooked together.

The Andhra food is very spicy because of the abundant cultivation of chillies in the state. Guntur being the largest producer of chillies in the state, the Guntur chillies are reputed all over the country for their pungency and colour.

The cuisine is largely vegetarian, with only the coastal areas showing a marked preference for seafood. Fish and prawn are curried in sesame and coconut oils, and flavoured with freshly ground pepper and eaten with rice. Traditionally, the Andhra meal is served on a clean banana leaf or a stainless steel thali. The people eat sitting down on the floor or on low wooden stools.

The main course must include rice, dal, vegetables like yam, ladyfinger, brinjal and bitter gourd. Pulusu and Charu are two thick and thin clear liquids respectively which are eaten with rice. Like Southern foods, the typical dosa, etc., can be found in many restaurants, but the favourite remains pesarattu, a dosa which has the filling of upma and onions. Rasam, fire-hot, is a typical favourite of the Southern region. Lamb is a great favourite, not to be missed. The spicy chutneys and pickles of Andhra, especially mango and shrimp, are simply superb and count among hot favourites. The last course of an Andhra meal comprises thick set curd which is a must in every Andhra meal. Otherwise a meal would be incomplete. During the summer season buttermilk or Majjiga is taken with the meal or as a refreshing drink throughout the day.

### **1.5.9 Chettinad Cuisine**

Rice is the king of grains in this area. No meal is possible without its making an appearance in one form or the other. Grain and split peas form the core of the diet. The Chettiyar community, of Chettinad, 250 miles south of Chennai, have the most interesting chicken dishes, though fish and meat also form a part of their eating habits. The Chettinad cuisine reflects the lifestyles of the Nattukotai Chettiars who come from one of the driest regions of South India, and belong to the most peripatetic of trading communities, merchant bankers who roamed through the countries of South East Asia, living frugally, but making enormous fortunes. Their cuisine, on the one hand, is the main branch of South Indian cuisine that specializes in the preparation of non-vegetarian food, chicken, meat and fish, all of which have a part to play in a meal and are served sometimes in a separate thali, hot and darkly pungent with freshly ground masalas and topped with a boiled egg that is somehow considered essential for a proper meal. At the same time, there are any number of sun-dried and salted vegetables that are stored by the Chettiar housewives who make use of every seed, fruit or legume that grows in the countryside. The Chettinad cuisine is salient spices like red chillies, pepper, onions and coriander are seasoned to subtle excellence, so that the vegetable or meat is not overpowered but looks a well-blended flavour inviting one succulent serving followed by a few others.

### **1.5.10 Kerala Cuisine**

The four distinct groups in the state of Kerala are: the Syrian Christians, the Muslims called Moflas, the Nairs who are the original warrior class, and

finally the Namboodri who are the Brahmins. Yellow banana chips fried in coconut oil and lightly salted are eaten by all. The rice appam, a pancake also called vellappam, is common to all Keralites and is eaten with a meat stew by the Syrian Christian and with aviyal by the Namboodris and Nairs. The idiappam, a dish of cooked rice noodles, the puttu consisting of rice rawa, grated coconut and jackfruit cooked with jaggery and cardamom are among the other common items. The Syrian Christian eats beef. Most of the curries are prepared using coconut milk.

For Christmas the specialty is wild duck with mappas. Among the Muslims the use of rice, coconut and jaggery is pronounced. There is also a strong Arab influence as is seen in their biryani, ground wheat and meat porridge aleesa. Several flavoured soups are made from both rice and wheat with added coconut or coconut milk and spices. A distinctive and unusual sweet is muttamala, chain-like strings of egg yolk cooked in sugar syrup. A wedding feast of the Nairs includes several types of pachadies, pickels, chips and payasams based on milk, coconut milk, rice, dal and bananas; however, no meat is served. The Namboodris who are the Brahmins are strict vegetarians who favour the idli, dosa and puttu for breakfast with a coconut or curd accompaniment and eat their rice with koottu, kalan and olan. The use of garlic in their cooking is avoided.

Kerala cuisine is very hot and spicy. Like most places in India, food is traditionally eaten by hand and served on a banana leaf. Another interesting feature is the abundant use of coconut oil, mustard seeds, curry leaves and coconut milk.

### **1.5.11 Bengali Cuisine**

Bengalis are one of the greatest food lovers in the Indian subcontinent. Their passion for fish is so that no meal is considered complete without it; A variety of fish is available in the river Ganges: perch, mullet, crab, carp, prawn, crayfish, lobster all are loved, but it is the seasonal hilsa that is priced above all. For Bengalis the staple food is rice. Though coconut and its oil is available, pure golden mustard oil is mostly used as a cooking medium. As in all of India, Bengalis eat everything with their fingers. Whether you have five dishes or sixty, the most important part of eating in Bengal is having each dish separately with a little rice in order to savour its individual taste. The more delicate tastes always come first, graduating to stronger ones. Vegetables, especially the bitter ones, are the first item, followed by dal, perhaps accompanied by fritters or fries of fish or vegetable. After this come any of the complex vegetable dishes like ghanto or chachhari, followed by the important fish jhol as well as other fish preparations. Meat will always follow fish, and chutneys and ambals will provide the refreshing touch. Finally comes the dessert.

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### Summary

Diversity can be found in India's food as well as its culture, geography and climate. Spices are a vital part of food preparation and are used to enhance the flavor of a dish. Correct use and blending of the aromatic spices is crucial to the proper preparation of Indian cuisine. Even oil is an important part of cooking, whether it's mustard oil in the north or coconut oil in the south, each section of the country has its preferences.

The traditional Indian food culture should not be forgotten by every generation as it shows the identity of the Indian people itself in terms of culture and norms. Each of the instruments has its own tales and sentimental values along with it.

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### Short Answer Type Questions

1. Give brief introduction of Indian food.
2. What is the difference between awadh and mughali cuisine ?
3. How do you make pav bhaji masala.
4. List the ingredients in sambar masala.
5. Explain the influence in goan cuisine.
6. Explain the diet of kashmiri pundits.
7. What is the difference between hyderabadi and Andhra cuisine ?
8. Explain the culinary regions of maharashtra.
9. Give an example to state the influence of Mughal cuisine in Punjab.

## International Cuisines

### Structure

- 2.1 Introduction
- 2.2 French cuisine
- 2.3 Nouvelle cuisine
- 2.4 Italian cuisine
- 2.5 Oriental cuisine

### Learning Objectives

After studying this unit, the student will be able to

- Know about various international cuisines

### 2.1 Introduction

International Cuisine provides comprehensive coverage of cuisines found throughout the world not only through recipes and techniques, but also through coverage of the history, culture, geography, religion, and locally grown ingredients that influence these various cuisines.

### 2.2 French cuisine

#### History

Ovens were installed in the twelfth century for preparing roasts.

From the fourteenth century, sauces were a much appreciated part of culinary art. Menu was varied which included game, fish, fowl, butcher's meat. Vegetables were featured less.

At the end of the sixteenth century, Italian cooks and pastry cooks were employed. They taught and prepared a number of dishes, which, since then, remained in the French repertoire, e.g. cannelloni, ravioli, gnocchi (Farinaceous dishes).

In the seventeenth and eighteenth century, royalty and high ranking people took great interest in food and the cooks in gratitude named dishes after them. The cooks during feasts or banquets were honored and appreciated if the food was good. If something went wrong, they were flogged in front of the guests. Confectionery, foreign dishes such as caviar, punch, etc. became popular.

French fries have been introduced to this country in the 18<sup>th</sup> century and gained so much popularity that they have been kept as part of the traditional French cuisine. By the early eighteenth century, bread and cereals were the basic ingredients in the daily diet

Only with the beginning of the 19<sup>th</sup> century food has become a social etiquette and more sophisticated dishes emerged, mainly served in high societies. The improvement of transportation, especially the introduction of train, marked the culinary revolution, since every peasant had access to more elaborated meals, ingredients and condiments. Vegetables that grow on fertile French lands include potatoes, green beans, carrots, turnips, aubergines, courgettes, famous French mushrooms, like champignons, oyster mushrooms, porcinis and truffles. As a tradition kept along the course of history, wineries

Since the end of the nineteenth century, French culinary art has reached the highest point of perfection. Chefs like Escoffier and Prosper Salles published books on cookery, which had far-reaching influence and are known throughout the world.

The French cooking style is considered to be one of the most refined, modern and elegant manners found in cuisines all over the world. Food is part of their culture, and original French recipes made France famous since centuries ago.

### **Regional Cuisines of France**

The typical France cuisine has techniques and methods common to all country's regions, but differences such as the use of butter in the northern parts, duck fat in the southern ones, and olive oil in the southeast, will give different flavors to your meals. Also, the eastern parts of France are greatly influenced by



the German cuisine, the lard, sausages, beer, and sauerkraut being part of the regional eating custom.

Auvergne is the place to fine sautés, shallots blue or tomme cheese. The famous Crêpes highly originate in the Brittany area, where you can also find Pork dishes and prune flans. Burgundy is well known for Beef or fish stews in red wine, Gougère, and the escargots (snails baked in shells with parsley butter). Quiche Lorraine, famous in most European restaurants, originates in the Lorraine region, together with Potée and Pâté Lorrain. Mediterranean influences in the French cuisine can best be spotted near Côte d'Azur/Provence.

In the Alsace region, sauerkraut with sausages, salt Pork and potatoes, spätzle, Baeckeoffe, Bredela and kouglof are just some of the main dishes you will find in the local cuisine. The Alp region is highly influenced by the Swiss cuisine, among the main recipes being the raclette (melted cheese served with potatoes, Ham and often dried Beef), fondue savoyarde, and Tartiflette (a Savoyard gratin with potatoes, Reblochon cheese and cream). In the Artois-Picardy region, stews are the main dish available. Fish or Beef is commonly used in the stews with vegetables, with other types of meat, and sometimes stewed in beer.

### **Characteristics of the cuisine**

French cooking is less complicated. While cooking, the garnishes served are more complex. It has a delicate flavour, as spices are used sparingly to just tease the palate. Sauce cookery plays an important role in French cuisine. Every ingredient speaks its own language. Wines used for cooking enhance the taste as it gives an unusual flavour, which emphasizes the unique feature of French cuisine. The most important rule is to use only the best ingredients and the proper blend of colour and taste of ingredients.

Garnishes and accompaniments play a key role in French cuisine and dishes are identified by them. Food items are cooked in sauces or they accompany a dish, e.g. roast beef is served with Yorkshire pudding and is accompanied with horseradish sauce. Presentation of the dishes is most important in French cuisine. Garnishes and accompaniments make the dish colourful.

Ingredients play an important role as it has climatic variations in the south of France; the Mediterranean heat adds flavour and richness to fruits, vegetables and herbs. In the northern region, finest fish is available. In certain regions, mushrooms and hard cheese are popular. The wines for cooking come from Bordeaux, Champagne and Brittany.

The cooking medium used is butter, olive oil or salad oil, thus the dishes are not greasy, but give a lightness to the taste. Spices and herbs give a subtle

flavour, taste and originality to the dishes. Some of the spices and herbs are parsley, celery, basil, tarragon, thyme, rosemary, chives, shallots, allspice, bay leaf, paprika, pepper, nutmeg, etc. Popular continental vegetables are asparagus, artichokes, carrots, turnips, aubergines, broccoli, seakale, cardoon, Brussels sprouts, mushroom, etc.

Vegetables are served with main courses and served as one of the accompaniments and they add colour to the menu. A meal is completed with potatoes as they give a satiety value and also accompany the main dish. The main dish consists of flesh foods such as lamb, beef, veal, pork, chicken, duck, turkey, fish, etc. and the fleshy foods should be of the best quality.

Cheese is extensively used and can be used as a base of dish, or to garnish and blend with soups. It is also sprinkled on top of the dishes after being grated. Cheese in a French menu forms a separate course during the meals and is called "*Fromage*" in French. Almost every region of France has its own cheese and a few popular cheeses are Camembert, Neufchatel, Roquefort, Brie, etc.

Red and white wines are used for cooking. Wine is much more than just a flavouring agent, if used with discretion. It gives an unmistakable fillip to the simplest dishes, ragouts, and in marinades. It acts as tenderizers for the drier and tougher cuts of meat. Sauces have the quality of giving contrast or blend with the ingredients, enhance taste, flavour and give colour to the dishes.

### **Equipment for French Cooking**

When you plan on cooking in a French manner, you will be in need of a lot of pots and serving spoons, spatulas, forks, turners, scrapers and tongs. Food processors, mixers, grinders and splatters are of great utility in this cuisine, especially for grating hard condiments like black pepper or cinnamon over an already prepared meal placed in a dish. The aspect of a meal is one of the most important things to consider, and you must have all the necessary equipment to arrange every single element in the ornamental dish.

Deep serving dishes are required for the traditional French Onion soups. Cover lids and insulated food carriers are used to keep the temperature of the food constant. Food thermometer is common tool in French kitchen, as the stews and the soups get cold fast, and serving at right temperature is very important in French cuisine.

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### **2.3 Nouvelle cuisine**

In the early 70s chefs wanted to bring about a change in French cuisine. It was done by H. Gault and C. Millan, as they were tired of eating the same classical food every day. It revolutionized French cookery.

Revolution is started by emphasizing on serving original salads, vegetable terrines, fish just cooked on the bone. It took about 20 years for people to take to nouvelle cuisine dishes. It was easier to get the recognition and now many restaurants are not offering the French classical dishes.

The nouvelle cuisine was influenced greatly by the monthly publication by Gault and Millan. They increased from 10,000 copies to 20 lakh copies per month. The change from the classical cuisine was brought about by.

**The following points**

- A variety of dishes were served on the menu but smaller portions were served.
- Presentation of the food was given a lot of importance by serving it on a plate, so that the presentation was not spoiled by the service personnel. Individual portions were placed on the plate and served.
- The sauces were served thinner; flour was not added for thickening.
- The cooking time was reduced by stir-frying, frying, grilling, etc.
- Fresh foodstuffs had to be used and emphasis was laid on seasonal vegetables, fishes, etc. The items should be bought from the best suppliers.
- Unusual flavours, combinations were prepared. The dishes like spit roasted chicken and items like veal chops, steaks, fish are cooked in its own juices.
- Selection of prime fresh products and elaboration of audacious taste combinations with amplified decoration.

The dishes were influenced by Chinese cuisine by preparing dishes with plenty of good-quality crisp vegetables, tender meat items and cooking by stir-frying and steaming. To give a different taste, some Indian spices such as ginger, coriander, cumin and saffron were used.

The latest equipment such as microwave ovens, high-pressure steamers, vacuum cooking and infrared grillers are used. The nouvelle cuisine has created interest but it has not got the same popularity as French classical cuisine; in India, only few restaurants are serving nouvelle cuisine. Abroad, some of the Indian restaurants are offering nouvelle Indian cuisine, less spicy and less greasy, etc.

## 2.4 Italian cuisine

Italian cuisine as a national cuisine known today has evolved through centuries of social and political change. Its roots can be traced back to the 4th century BC. The cuisine changed significantly with discovery of the New World which helped shape much of what is known as Italian cuisine today with the introduction of items such as potatoes, tomatoes, bell pepper and maize, which are all central parts of the cuisine but were not introduced in scale until the 18th century.

Ingredients and dishes vary by region. There are many significant regional dishes that have become both national and regional. Many dishes that were once regional, however, have proliferated in different variations across the country in the present day. Cheese and wine are also a major part of the cuisine, playing different roles both regionally and nationally with their many variations. Coffee, and more specifically espresso, has become highly important to the cultural cuisine of Italy.

### History

When contemplating the history of Italian cuisine, it is important to remember that Italy did not exist as a unified country before 1870. Prior to that, it was a diverse collection of kingdoms and principalities.

Similarly, one needs to remember that most recipes in the Italian repertoire have come down to us from generations of poor, hard-working people. While the feasts provided by the Medici, Estes and Lombardi are the stuff of legend, court fare was more closely identified with French and Austrian cuisine and subject to changes in fashion and taste. This has little to do with what we now identify as Italian cooking, which was largely dependent on locally and seasonally available products and which probably evolved very slowly over the centuries.

Several major changes have nonetheless shaped Italian cooking, notably the acceptance of tomatoes as a food in the 18th century. To a lesser extent and at about the same time, potatoes became a regular part of several regional cuisines.

### Regional Cuisines of Italy

The Italian cuisine is characterized by some specific unique dishes, like pasta, risotto and pizza, which are served in all parts of the country. However, regional differences may occur in the cooking process of a meal, resulting in variations of the same recipe, or unique specific ones of a single area, like the Napoli pizza, specific to the Neapolitan region.

In the Tuscan region, hearty soups and fish stews are common thing. Cacciucco and scottiglia are some of the specific Tuscan stews.

Lombardy is well known for Milan related dishes, such as spaghetti Milanese and minestrone alla Milanese, and for other specialties such as creamy Gorgonzola and polenta. Rice and peas are specific for the Veneto region, where you can also find calf's liver fried with onions, shellfish, eels and dried Cod.

In Genoa region pesto is the main ingredient, and in Norcia, the Italian cuisine capital, you can find pork dishes, black truffles, and hand-made pasta like "strozzapreti." Sicily is rich in fruits and seafood, as well as Sardinia, which is also known for sausages, sweet green olives, and Lamb steaks.

### **Equipment for Italian Cooking**

Italian cooking requires a lot of pots and serving spoons, spatulas, forks, turners, scrapers and tongs. Big pots that can be placed over open fires are specific to this cuisine. baking pots and dishes are very popular in the Italian cuisine, as lot of meals are prepared in the oven rather than on an electric fire. The famous pizza specialties are only baked in ceramic or clay ovens to give the crispy taste to the dough.

Wooden spatulas are frequently used in the cooking process, not only for stirring, but for pizza-grabbing and handling. Food processors, mixers, grinders and splatters are of great utility in this cuisine, especially in the Sausage making process, and for grating hard condiments like black pepper or cinnamon. Deep serving dishes are required for the traditional Italian pasta, for soups and for stews.

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## **2.5 Oriental cuisine**

### **Oriental Cuisine**

Oriental cuisine can actually refer to very different styles of Asian cooking depending on the nation or area. The Oriental section of Asia covers a huge chunk of eastern Asia known as the Far East and their wide range of culinary traditions. Oriental cooking may be different from one nation to another nation.

### **Geography**

The geography of the area that makes up "the Orient" stretches from east Siberia south all the way to Indonesia and includes Mongolia, Japan, Korea, Vietnam, Thailand and most of China. Oriental cuisine almost always refers to some type of Asian cooking from the Far East region eliminating most dishes from Siberia and Indonesia.

### **Chinese Cuisine**

There are many types of Chinese cuisine, because different areas of China can have distinctly different styles of cooking. Many times when someone in Europe or America thinks of Oriental food, Chinese food comes to mind, with its use of chicken, rice, Vegetables, sauces and exotic ingredients.

### **Japanese Cuisine**

Japanese cuisine is a type of Oriental cuisine. Japanese culinary tradition makes heavy use of fish along with sushi and other seafood. This cooking has a very distinct taste and style compared to many other types of Asian cooking from the Far East area, because there is less frying and more careful preparation of steamed or even raw foods.

### **Korean Cuisine**

Korean cuisine is another form of Asian cooking that can fall under the umbrella term of Oriental cuisine. Kimchi involves putting rotting vegetables in a stew and burying the stew pot to make it ferment. Rice, noodles, seaweed and snails are also used in Korean cuisine, and Koreans' spicy barbecue is beginning to catch on.

### **South East Asian cuisines**

Cuisine from Southeast Asia also qualifies as Oriental food, with Thai and Vietnamese being the two that are most well known in Western nations. Various noodles, curries and hot spices help distinguish Southeast Asian cooking from that of some of the other Oriental nations that make up the Far East.

While Oriental cuisine is a broad term that can cover many styles of cooking. In China, Oriental cuisine might mean Korean or Japanese food, while in Vietnam it might mean Chinese or Japanese food, and in Japan it could mean Thai or Mongolian. From that standpoint, what exactly counts as "Oriental" in Asia varies by country.

### **The Three Oriental Cuisine Areas**

1. The South West - India, Pakistan, Sri Lanka, Burma
2. The North East - China, Korea, Japan
3. The South East - Thailand, Laos, Cambodia, Vietnam, Indonesia, Malaysia, Singapore, Brunei.

Curries are very important to the cuisines of the South East and South West, and less in the cuisine of the North East. South Western curries are generally based on yogurt, whereas the curries of the South East and North East are generally based on coconut milk.

Rice is a staple starch in all three cuisines areas. In addition to rice, South Western cuisines include a variety of leavened and unleavened breads and South East and North East cuisines include rice and egg noodles.

In the South West, the major oil used in frying is ghee, or clarified butter. In the South East and North East, the major oils are vegetable oils. Garlic and ginger are used in all three cuisine areas, and chillies are common the South West and South East. The North Eastern cuisines use soy sauce in nearly everything; the South East substitutes fish sauce; there is no equivalent in South Western cooking. In the South East, there are two additional flavorings that are not used in the other cuisines - galangal and lemon grass.

### **Special Equipment to Cook Oriental Cuisine**

- **The Wok :** The wok is the most important piece of cooking equipment in Southeast Asia and China. The different type of woks available are - round-bottomed and flat-bottomed, on- handled and two- handled, mild steel, stainless steel, aluminum, and Teflon coated. The most traditional is hand beaten of mild steel with a round bottom and two handles. A new wok must be seasoned before use. Scrub it well with soap and water to remove any coating applied to protect it during shipping, rinse well, and dry. Place the wok over low heat, wipe lightly with vegetable oil and let stand on the heat for 10 minutes. Cool and wipe with paper towels to remove the dark film. Repeat the oiling, heating, cooling and wiping procedure until the paper towels come away clean. Once a wok has been seasoned, it should be cleaned with plain water only using a wok brush,

- **Wok Tools :** The most important wok tool is the long handled shovel-shaped scoop used to stir fry. Other wok tools include; a ladle, used to transfer liquids to and from the wok; a strainer with a brass or steel basket to remove foods from hot oil. A strainer with a bamboo basket for removing foods from boiling water or stock; a bamboo whisk brush for cleaning; a rack which sits on the side of the wok for draining fried foods.

- **Steamers :** Large dedicated steamers with multiple stacking are available in stainless steel or aluminum, but more common are the stackable bamboo steamers. These are designed to be used in a wok over boiling water, and are often used as serving dishes.

- **Clay Pots are glazed :** Inside but unglazed on the outside are used for baking or stewing. They are available in a range of sizes, and like woks, with either one handle or two.

- **Cleavers :** The oriental cleaver is a very versatile instrument - it performs all the functions of the various knives of western kitchens. Light cleavers

are used for general chopping, slicing and carving; heavier, thicker cleavers are used for chopping bones. A good set of kitchen knives can be substituted.

- **Rice Cooker** : If you are cooking rice often, a rice cooker is worth the investment. Place rice and water in the cooker, plug it in and press the button. Perfect rice every time.

- **Hand Held** : Blender or Small Food Processor Most South East Asian dishes require considerable fine chopping - a hand held blender with a mincer /chopper attachment or a small food processor will cut your preparation time in half.

### Conclusion

International cuisine is largely an invention of the multinational hotel chains. It is an assembly of dishes largely drawn from the classic French and Italian, oriental cuisines in many cases toned down a little in flavour so as to give no offence to the client. The cuisines are formed unique and to be understood in their own way. The simplest way to understand the cuisines is to understand the culture, lifestyles and eating habits.

### Short Answer Type Questions

1. What are the characteristics of French cuisine ?
2. Explain briefly about regional cuisine of France.
3. List out the common equipment for French cooking.
4. On what regard the nouvelle cuisine is changed from classical cuisine.
5. Write briefly about Italian cooking.
6. What are the common equipment for Italian cooking ?
7. What areas include in oriental cuisine ?
8. Explain about oriental cuisine.



## Kitchen Hygiene and Sanitation

### Structure

- 3.1 Introduction of Food laws
- 3.2 Food laws
- 3.3 Food additives
- 3.4 Food adulteration
- 3.5 Causes of food spoilage
- 3.6 Common food & water borne diseases and their prevention

### Learning Objectives

After studying this unit, the student will be able to

- Understand about food laws
- Know the causes of food spoilage
- Know about preventive measures of food and water borne diseases

### 3.1 Introduction of Food laws

In order to meet a country's sanitary requirements, food must comply with the local laws and regulations to gain market access. These laws ensure the safety and suitability of food for consumers. Each country regulates food differently and has its own food regulatory framework.

### 3.2 Food Laws

The Food Safety and Standards Authority of India (FSSAI) has been established under Food Safety and Standards Act, 2006 which consolidates various acts & orders that have handled food related issues in various Ministries and Departments till now. FSSAI has been created for laying down science based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import to ensure availability of safe and wholesome food for human consumption. This act overrides all other food related laws. It will specifically repeal eight laws.

#### 1. The Prevention of Food Adulteration Act, 1954

A basic statute protects India against impure, unsafe, and fraudulently labeled foods. The PFA standards and regulations apply equally to domestic and imported products and cover various aspects of food processing and distribution. These include food colour, preservatives, pesticide residues, packaging and labeling, and regulation of sales.



Fig 3.1 Department of Prevention of Food Adultration, New Delhi

#### 2. The Fruit Products Order, 1955

The fruit and vegetable processing sector is regulated by the Fruit Products Order, 1955 (FPO), which is administered by the Department of Food Processing Industries. The FPO contains specifications and quality control requirements regarding the production and marketing of processed fruits and vegetables, sweetened aerated water, vinegar, and synthetic syrups. All such processing units are required to obtain a license under the FPO, and periodic inspections are carried out. Processed fruit and vegetable products imported into the country must meet the FPO standards.



**Fig 3.2 Fruit Production Order**

### **3. The Meat Food Products Order, 1973**

It regulations for the production of meat products are covered by the Meat Food Products Order, 1973. The Order specifies sanitation and hygiene requirements for slaughter houses and manufacturers of meat products.



**Fig 3.3 Meat Food Products**

### **4. Vegetable Oil Products Order, 1998**

The Vegetable Oil Products industry is regulated by this Order through the Directorate of Vanaspati, Vegetable Oils & Fats, Department of Food, Public Distribution, Ministry of Consumer Affairs, and Food & Public Distribution. This order is for proper regulation of manufacture, distribution and sale of Vegetable Oil Products.



***Vegetable Oil refining and Packing***

**Fig 3.4 Vegetable oil Refining & Packing**

### **5. The Edible Oils Packaging (Regulation) Order, 1998**

According to this order, from the 15th day of December, 1998, there is prohibition of sale, expose for sale, distribute, offer for sale, dispatch, deliver to any person for the purpose of sale of any edible oil if it is not satisfying following norms.

- Conforming to the standards of quality as provided in the Prevention of Food Adulteration Act, 1954 (37 of 1954) and rules made there under.
- Packed in a container, marked and labeled in the manner as specified in the Schedule.



***Edible Oils Packaging***



**Fig 3.5 Edible Oil Packing**

6. The Solvent Extracted Oil, De oiled Meal, and Edible Flour (Control) Order, 1967

### 7. The Milk and Milk Products Order, 1992

The production, distribution and supply of milk products is controlled by the Milk and Milk Products Order, 1992. The order sets sanitary requirements for dairies, machinery, and premises, and includes quality control, certification, packing, marking and labeling standards for milk and milk products.



Fig 3.6 Milk Packing Plant

### 8. Essential Commodities Act, 1955 relating to food

The main objective of the Act is to regulate the manufacture, commerce, and distribution of essential commodities, including food. A number of Control Orders have been promulgated under the provisions of this Act.



Fig 3.7 Essential Commodities Related to Food

### Voluntary Standards

There are two organizations that deal with voluntary standardization and certification systems in the food sector. The Bureau of Indian Standards looks after standardization of processed foods and standardization of raw agricultural produce is under the purview of the Directorate of Marketing and Inspection.

#### Bureau of Indian Standards (BIS)

The activities of BIS are two fold the formulation of Indian standards in the processed foods sector and the implementation of standards through promotion and through voluntary and third party certification systems. BIS has on record, standards for most of processed foods. In general, these standards cover raw materials permitted and their quality parameters; hygienic conditions under which products are manufactured and packaging and labeling requirements. Manufacturers complying with standards laid down by the BIS can obtain and “ISI” mark that can be exhibited on product packages. BIS has identified certain items like food colours/additives, vanaspati, and containers for packing, milk powder and condensed milk, for compulsory certification.



Fig 3.8 Bureau of Indian Standards

#### Directorate of Marketing and Inspection (DMI)

The DMI enforces the Agricultural Products (Grading and Marketing) Act, 1937. Under this Act, Grade Standards are prescribed for agricultural and allied commodities. These are known as “Agmark” Standards. Grading under the provisions of this Act is voluntary. Manufacturers who comply with standard laid down by DMI are allowed to use “Agmark” labels on their products.



Fig 3.9 Directorate of Marketing & Inspection

### 3.3 Food additives

As this is the generation of convenience and processed foods, the food produced on the large scale that is needed to supply supermarkets and other food shops has to be transported and stored before it is consumed. It has to stay in top condition over a much longer period of time than home-cooked food. In order to keep up in good quality food additives place an important role. In some products, they are so essential that additives are used even in certain organic foods. Preservatives, colours and flavours are the best known additives but in fact there are many categories of additives, each tailored to a specific purpose.

Food additives have been used by mankind for centuries. Salt, sugar and vinegar were among the first and used to preserve foods. In the past 30 years, however, with the advent of processed foods, there has been a massive explosion in the chemical adulteration of foods with additives.

#### **Few additives commonly used are**

##### **Colours**

There are three types of colours. They are natural colours, nature Identical Colours, synthetic colours. Natural colours are obtained from natural sources such as grasses, leafy vegetables, fruit skins, roots and seeds of plants. Nature Identical colours obtained from natural sources can be costly and their quality can vary. Indigoid, found in beetroot, carotenoids, found in carrots, Synthetic Colours are colours that do not occur in nature and have been made in a factory. They have been carefully tested to make sure that they are safe. The main examples of synthetic colours are azo dyes etc.

## Flavors

Flavourings are used in a wide range of food products. Most flavourings are an imitation of the flavour of a known foodstuff. Some flavours are isolated from natural raw ingredients but this is costly and also wastes valuable natural resources

## Food Preservatives

Most preservatives today are actually fungi static in their action. That means they prevent the growth of fungi, moulds and yeasts. They have little effect on bacteria but using a combination of preservatives, with antibacterial properties; can give good all round protection. Food preservatives help to control the spread of bacteria which can cause life threatening illnesses.

## Anti-caking agents

Anti-caking agents are added to allow them to flow and mix evenly during the food production process. They rarely have nutritional value and only a small proportion of the additives find their way into the food.

## Antioxidants

Antioxidants are added to food to slow the rate of oxidation and, if used properly, they can extend the shelf life of the food in which they have been used.

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## 3.4 Food Adulteration

Food adulteration has become a very common practice in our country. These foods are consumed every day, which leads to numerous harmful effects to our health. Food adulteration means anything adding or subtracting with food making it injurious to health. This adulteration may be done intentionally or unintentionally. Intentional adulteration is a criminal act and punishable offense.

Under the Prevention of Food Adulterant Act, A substance added to a food-item to reduce its quality in order to increase its quantity is called as an adulterant. This act of addition of the adulterant in food-items is known as food adulteration. The addition of adulterant may be intentional or accidental. The major reason for the intentional addition of these adulterants is for increasing the profit margin on the expense of the health of the public or consumer. These days rarely any food item is spared from the malicious practice of food adulteration.

Almost every food-item from milk to fruits, from vegetables to grains is added with adulterants. Some adulterants enter via agricultural steps, as they are not cleaned well. These are visible adulterants like stones, leaves, soil, sand and dust to name a few. The consumer can clean them and this makes it less



harmful. Other adulterants that are intentionally added are invisible or they are made invisible by astutely camouflaging with the color or texture. They are generally harmful for the health and most of them lead to serious health problems like cancer. Adulterant reduces the quality of the food and this weakens the health of the one who consumes them, thereby increasing the cost for healthcare.

Regular intake of an adulterated food can lead to many health problems. From curable to incurable disorders and diseases can ruin one's lifestyle and life as well.

### Food is considered as adulterated

- When any inferior or cheaper substance has been substituted wholly or in part.
- Any constituent of the article has been wholly or in part abstracted
- The article has been prepared, packed or kept under insanitary conditions.
- The article consists in part filthy, rotten, decomposed or diseased animal or vegetable or is infested with insects
- The article is obtained from diseased animal
- The article contains any poisonous ingredient
- The article has a colour which is not prescribed or in excess then prescribed limits
- The article contains any prohibited or excessive preservatives.
- The quality nor purity of the article falls below prescribed standard

### Some of the food with adulterant and the test to recognize the adulterant.

Food Article	Adulterant	Simple Method for Detecting the Adulterant
Milk	Water Urea	Put a drop of milk on polished vertical surface. The drop of pure milk either stops or flows slowly leaving a white trail behind it. Whereas milk adulterated with water will flow immediately without leaving a mark. Take 5 ml of milk in a test tube and add 2 drops of bromothymol blue soln. Development of blue colour after 10 minutes indicates presence of urea.

Mustard Seeds	Argemone Seeds	Argemone seeds have rough surface and mustard seeds on pressing is yellow inside while argemone seed is white.
Ice Cream	Washing Powder	Put some lemon juice, bubbles are observed on the presence of washing powder
Sugar	Chalk	Dissolve sugar in a glass of water, chalk will settle down at the bottom, similarly for salt
Silver Foil	Aluminium Foil	On ignition genuine silver foil burns away completely leaving glistening white spherical ball of the same mass while aluminum foil is reduced to ashes of black Grey colour.
Honey	Water	A cotton wick dipped in pure honey burns when ignited with a match stick. If adulterated presence of water will not allow the honey to burn, if it does will produce a cracking sound.
Coffee	Chicory	Gently sprinkle the coffee powder on surface of water in a glass. The coffee floats over the water but chicory begins to sink down within few seconds. The falling chicory powder particles leave behind them a trail of colour, due to large amount of caramel they contain
Tea	Coloured leaves Used tea Iron fillings	Rub leaves on white paper, artificial colour comes out on paper. Tea leaves sprinkled on wet filter paper. Pink or red spots on paper show colour. Move a magnet through the sample. Iron will stick to the magnet.
Red Chilli Powder	Rodamine Culture Brick Powder	Take 2gms sample in a test tube, add 5ml of acetone. Immediate appearance of red colour indicates presence of Rodamine. Brick powder settles fast chilli powder settles slowly when put in water.
Turmeric Powder	Metanil Yellow	Add a few drops of HCl to the extract of turmeric from water. Instant appearance of violet, when the colour persists when diluted with water indicates the presence of metanil yellow.
Dal arhar, moong, washed C	Metanil Yellow	Extract the colour with Luke warm water from the sample of pulses, add drops of HCl. A pink colour indicates presence of metanil yellow.

Green vegetables like chilli	Malachite green	Take a small part of the sample and place it over a moistened white blotting paper, the impression of the colour on paper indicates the presence of malachite green
Pure Ghee or Butter	Vanaspathi	Take one teaspoonful of melted ghee or butter with equal quantity of Conc. Hydrochloric acid in a test tube and add to it a pinch of cane sugar. Shake well for one minute and let it stand for five minutes. Appearance of crimson colour in lower layer shows the presence of vanaspathi.
Black Pepper	Papaya Seeds	Float the sample in alcohol. The mature black pepper berries sink while papaya seeds and light black pepper float.
Hing	Soap Stone or earthy matter	Shake a little portion of sample with water and allow to settle. Soap stone or earthy matter will settle down at the bottom.
Saffron	Coloured dried tendrils of maize cob	Pure saffron will not break easily like artificial. Pure saffron when allowed to dissolve in water will continue to give its colour so long as it lasts.
Common Salt	White powdered stone	Stir a spoonful of sample salt in water. Chalk will make the solution white and other insoluble impurities will settle down.

Food Adulteration occurs in rural as well as urban areas. So the first option is to buy Agmark and ISI-marked products. If any person manufactures for sale, stores, sells imports or distributes any article of food which is adulterated or misbranded, he is liable under the PFA Act to be punished with imprisonment and fined. If adulterated food is identified, then it is the responsibility of the consumer to Complain the same to Prevention of Food Adulteration Department in your nearest area and report to the newspapers and make more and more people aware to take joint action.

### 3.5 Causes of food spoilage

Food spoilage is considered as undesirable changes occur in food due to the influence of air, heat, light, moisture, which foster the growth of microorganisms. Foods take different period of time to lose their natural form though spoilage. In context to food preservation, foods are classified as.

- Perishable-meat, fish, milk fruits and some vegetable,
- Semi perishable-eggs, onions, potatoes, carrot, beans and
- Non-perishable-cereals, pulse nuts.

### **Foods are spoiled by the action**

1. Micro-organisms
2. Enzymes and
3. Insects.

**1. Micro-organisms :** The micro-organisms responsible for food spoilage are moulds, yeast and bacteria.

**Moulds :** Moulds are in the form of threads developed on perishable foods and are easily visible to the eye. They contain spores which can spread through the air and start new mould plants. When these moulds find a favorable environment, they germinate and produce a fluffy growth, often white or grey but sometimes bluish-green, red, orange or some other colour, depending upon the variety of the mould. Most moulds are not harmful.

**Yeasts :** Yeasts are tiny organisms which are not visible to the naked eye, but which can be seen through the microscope. They multiply very fast and cause fermentation by acting on certain components of the perishable foods like fruit juices, syrups etc. During yeast fermentation, the sugars present in the food are broken up to form alcohol and carbon dioxide. Foods liable to be spoiled by yeasts are fruit juices, syrups, molasses, honey, jams and jellies.

**Bacteria :** Bacteria are unicellular organism and are much smaller in size than either yeasts or moulds. They occur in different sizes and shapes and are classified as coccus (spheroidal), bacilli (cylindrical) or spirillae (spirillar) on the basis of their shape as seen under the microscope. They also vary in their requirement for food, moisture, acidity, temperature and oxygen. Bacteria can grow and develop rapidly between 20°C and 53°C.

**2. Spoilage by Enzymes :** Enzymes are organic catalyst present in living cells. The life of every living cell depends upon the chemical reactions activated by these enzymes. Hence, they cause food spoilage due to the chemical reactions as in cutting apples; it becomes brown while tomato cause develops a black scum. Enzymes are sensitive to heat and are easily destroyed by heat. They can act from 0°C to 60°C; their optimum temperature of reaction is usually 37°C. All enzymes are inactivated by temperatures above 80°C. Therefore, enzyme activity can be prevented by heating foods to temperature which inactivate the enzymes. It can also be prevented by cooling (as in freezing and

refrigeration) by elimination of air, by protection from light and by addition of anti-oxidants.

**3. Spoilage by insects :** Worms, bugs, weevils, fruit flies, moths cause extensive damage to food and reduce its nutritional value and make it unfit for human consumption.

### **Prevention of food spoilage**

To prevent from spoiling, handle and store food properly. fresh and perishable food like fish, meat and poultry should be stored in freezer compartment in the freezer compartment of the refrigerator. Cooked food, eggs and dairies should be stored in the lower compartment of the freezer in the refrigerator between 2C to 8C, and fruits and vegetables should be stored in the vegetable crisper of the refrigerator. Drying foods like dried fish, dried fruits and vegetable as bacteria do not thrive on dried foods should be stored in air tight containers. Food can be further preserved by killing the microorganism through heating or cooking, by adding salt, vinegar, or sugar in the food. Food stored in presence of insects, rodents, bacteria, and foreign matters that may cause damage to the food.

## **3.6 Common food & water borne diseases and their prevention**

Food may be contaminated through unclean utensils and equipment. The pathogenic organisms eliminated from the human body are found in sewage. If untreated sewage is allowed to drain into any drinking water, the water as well as fish breeding in such Waters gets contaminated. Salad vegetables, roots and tubers are at a greater risk of contamination as they are consumed raw and because they are in direct contact with the soil. Rats, flies and cockroaches can also transmit disease.

They live in sewers and garbage dumps. Unpasteurized milk and meat from diseased animals can transfer pathogens of animal origin. The spread of communicable diseases can be controlled and these diseases are discussed in detail later on in this chapter.

### **3.6.1 Common food borne diseases**

A food-borne illness is a general term applied to all types of illnesses caused by an organism, substance or material of any kind which is present in food and gains entrance into the body when such food is consumed. The cause of contamination is generally faulty handling, poor sanitary practices, insects, rodents or micro-organisms. The natural decay that occurs in animal or plant tissues is accompanied by foul odours and changes in appearance and taste.

As the spoilage is visible, people reject the food. The main cause for concern is food which is spoilt but where spoilage is not visibly noticeable. Such food is likely to be consumed and may result in disease.

### **Food may transmit disease by any of the following ways**

1. The food itself may be wholesome but may act as a vehicle of disease transmission. Pathogenic organisms can be transmitted from one person to another through many routes like soiled linen, unclean cups, handkerchiefs, door handles etc. Food handled with soiled hands or on which an ill person or a carrier has coughed or sneezed, can also cause illness. Diseases like tuberculosis, tonsillitis, typhoid and influenza can be easily transmitted this way.

2. The food may serve as an ideal medium for rapid growth and multiplication of a large number of micro-organisms like Staphylococci and Salmonella. This may result in food poisoning or food infection. These micro-organisms can cause violent illness of the stomach and intestinal tract. Some of these bacteria release toxins into the food. The bacteria may die but the toxins formed cause food poisoning. Other bacteria do not act until they are consumed along with food. They then cause an infection of the gastro-intestinal tract.

3. Food poisoning may be caused by agents other than micro-organisms. These include toxic chemicals, poisonous plants like poisonous mushrooms, insecticides and pesticides. Toxic metals such as cadmium, zinc, lead etc., or excessive use of mono-sodium-glutamate in Chinese food may lead to severe reactions. Some individuals may show abnormal sensitivity to certain foods and develop allergies. Common food allergens are egg white, shellfish and strawberries.

Food-borne hazards may thus result from microbial action, toxic metals and pesticides, animal parasites, natural poisons in foods or allergic reactions of a person due to sensitivity to a particular food. Of all the food-borne hazards listed above, diseases caused by microbial action in food are widespread. Micro-organisms cause food poisoning and food infection and animal parasites cause infestation. All these can be controlled by hygienic handling of food and good personal hygiene. Micro-organisms which cause food-borne illnesses are bacteria, viruses, protozoans and nematodes.

Among all these micro-organisms, bacterial contamination is the most common cause of food poisoning in the catering industry. It usually results from mishandling of food. These illnesses are characterised by a severe disturbance of the stomach and intestines which occurs after consuming food in which the offending bacteria were given a chance to multiply. Such illness is broadly divided into two categories: food poisonings and food infections.

### Difference between Food Poisoning and Infection

Food Poisoning	Food Infection
• Caused by toxin	• Caused by living micro-organisms
• <b>Incubation period</b> : Two hours	• <b>Incubation period</b> : 12-24 hours
• <b>Symptoms</b> : Nausea and vomiting diarrhoea, usually no fever	• <b>Symptoms</b> : Diarrhoea, abdominal pain, vomiting, fever
• <b>Duration</b> : One day, sometimes	• <b>Duration</b> : One to seven days
• longer	• Sometimes longer

### Prevention of food borne illness

- Wash all fruits and vegetables thoroughly before serving.
- Make sure all chopping and cooking surfaces are clean and disinfected beforehand.
- Wash your hands frequently.
- Cook meat thoroughly on high heat.
- Don't cross-contaminate food.
- Follow preparation of raw meat with a thorough cleaning. Wash anything that came in contact with the meat or meat juice with antibacterial cleanser.

### 3.6.2 Common water born diseases

#### Water-borne diseases

Water related diseases are the most common cause of deaths. Around 1.5 million children in India are estimated to die of diarrhoea alone. The scarcity of clean water for domestic use has led to the increase in the number of deaths in both the urban and rural areas. Deaths due to water related diseases in India are in the range of nearly 80 percent. Here is a list of the 5 most deadly water related diseases that occur in common.

#### i. Diarrhoea

• Diarrhoea remains the most prevalent water related disease as it mostly affects children under the age of 5 and often leads to death. Diarrhoeal infection is spread through food and drinking water that has been contaminated. A

diarrhoeal attack can last up to 2 weeks and leave the person completely dehydrated.

- Symptoms of diarrhoea include, severe dizziness, loss of consciousness, dehydration and pale skin, little or no urination and in some case bloody stool.
- Diarrhoea can spread through multiple viruses that is found in contaminated water. The poorer sections of the society come in daily contact with this water and that is the why the rate of diarrhoea is highest amongst them.

## **ii. Cholera**

- Thousands of people fall prey to cholera every year. Cholera is a water related disease, and is diarrhoeal in nature. It can kill in hours if left unattended. Cholera strikes when one ingests water that is infested with the *Vibrio Cholerae* bacterium.
- Symptoms of cholera include watery bowels and fever in certain cases. Cholera can happen to both children and adults.
- In India cholera related deaths are most common in places with shortage of good quality water.

## **iii. Malaria**

- Malaria or Malarial fever is spread by the Plasmodium parasite mosquito that breeds in water bodies like lakes and paddy fish. Stagnant water is another favourite breeding ground for these deadly parasites. Malaria mostly kills children, as adults slowly form some sort of immunity against the parasite, over the years.
- Malarial fever symptoms include fevers, chills, headaches and vomiting. Sometimes these symptoms are also coupled with anaemia. A malarial infection shows only after a week has passed. Therefore, treating it immediately is a necessity.

## **iv. Japanese Encephalitis**

- Japanese encephalitis is a water related disease that is caused by the *Culex Tritaeniorhynchus* and *Culex Vishnui* type of mosquitoes. These mosquitoes' favourite breeding ground is water flooded paddy fields. Therefore, Japanese encephalitis is majorly found in the agricultural regions of India.



- The Japanese encephalitis virus attacks children the most and in some cases this water related disease can lead to death. The symptoms of Japanese encephalitis include fever, vomiting, headaches and in acute cases, coma, seizures and finally death.

#### v. Filariasis

- Filariasis is a parasitic disease and affects people who live near unsanitary water bodies or sewages. Filariasis is spread by mosquitoes that breeds in fresh and stagnant water bodies and is the host of the filarial nematode worm. This worm affects humans and leads to elephantitis.
- Filariasis can lead to blindness, and rapid skin pigmentation and the filarial worms can affect various parts of the body. Filariasis is a concern for the rural population in India whose major occupation is agriculture.
- Although Filariasis can be treated and prevented with oral medicines, lack of medicines in rural India leads to severe disfiguration in many cases.

#### Short Answer Type Questions

1. List out the food law and regulations implemented for the sanitary requirements in India.
2. Write briefly about the Fruit Products Order, 1955.
3. The Meat Food Products Order, 1973.
4. The Milk and Milk Products Order, 1992.
5. Bureau of Indian Standards (BIS).
6. Directorate of Marketing and Inspection (DMI).
7. What are the food additives used in the catering industry ?
8. What is the use of anti caking agents ?
9. What are different types of food colours used in catering industry?
10. On what conditions food is considered as adulterated.
11. What are the different ways to adulterate tea? How to rectify them?
12. What precautions to be taken by consumer if adulterated food is identified ?

13. What are the different water born diseases ?
14. What is the difference between food poisoning and food infection?
15. How do you prevent food borne illness.
16. What are the causes of food spoilage ?
17. Explain the different types of food spoilage by micro organisms.

## Advanced Bakery

### Structure

- 4.1 Introduction
- 4.2 Pastry
- 4.3 Icings and pastry cream

### Learning Objectives

After studying this unit, the student will be able to

- Know about pastry items
- Know about different icings and pastry creams

### 4.1 Introduction

The mixture of fat flour, salt and water is known as pastry. Optional ingredients like sugar, flavour, milk solids may be added. The method of mixing is differ for different pastries.

### 4.2 Pastry

Pastry is the name given to various kinds of baked products made from ingredients such as flour, sugar, milk, butter, shortening, baking powder, and/or eggs. Tarts and other sweet baked products are called “pastries.” Pastry may also refer to the dough from which such baked products are made. Pastry dough is rolled out thinly and used as a base for baked products. Common pastry dishes include pies, tarts, quiches and pasties.

Pastry is different from bread as it has higher fat content, which contributes to a flaky or crumbly texture. A good pastry is light and airy and fatty, but firm enough to support the weight of the filling. There mostly used pastries are

- Short crust pastry
- Laminated pastry
- Puff pastry
- Choux pastry

#### **4.2.1 Short crust Pastry**

Short crust pastry is the simplest and most common pastry. It is made with flour, fat, butter, salt, and water. This is used mainly in tarts. It is also the pastry that is used most often in making a quiche. The process of making pastry includes mixing of the fat and flour, adding water, and rolling out the paste. The fat is mixed with the flour first, generally by rubbing with fingers or a pastry blender, which inhibits gluten formation and results in a soft, tender pastry. It does not puff up during baking because it usually contains no leavening agent. Short crust pastry is used to make pies such as apple pie, quiche, lemon meringue or chicken pie. Many short crust pastries are prepared using vegetable shortening and the composition of which lends to creating crumbly.

Short crust pastry is based on a “half-fat-to-flour” ratio. Fat (lard, shortening, butter or full-fat margarine) is rubbed into plain flour to create a loose mixture that is then bound using a small amount of ice water, rolled out, then shaped and placed to create the top or bottom of a flan or pie. Overworking the dough is also a hazard. Overworking elongates the gluten strands, creating a product that is tough, rather than light and crumbly or flaky.

#### **Recipe for short crust pastry**

Ingredients with Quantity

- 200g of all purpose flour
- Pinch of salt
- 100g of butter, cubed
- 2-3 tbsp very cold water

#### **Method of Preparation**

- Place the flour, butter and salt into a large clean bowl.
- Rub the butter into the flour with your fingertips until the mixture resembles fine breadcrumbs, working as quickly as possible to prevent the dough becoming warm.

**Fig 4.1**

- Add the water to the mixture and using a cold knife stir until the dough binds together; add more cold water a teaspoon at a time if the mixture is too dry.

**Fig 4.2**

- Wrap the dough in cling film / plastic wrap and chill for a minimum of 15 minutes and up to 30 minutes.

#### **4.2.2 Laminated Pastry**

Laminated pastry is a simple pastry that expands when cooked due to the number of layers. It bakes into a crisp, buttery pastry. Croissants and Danish pastry is obtained by beginning the baking process with a high temperature and lowering the temperature to finish.

Laminated is term used for the process of alternating layers of dough and butter when making pastry. The dough is wrapped around butter and the packed dough is rolled out, folded over to double the number of layers, and then the whole thing is repeated. Each time the dough is folded, it is called a

“turn.” The more turns your laminated dough will give flakier of finished pastry. Laminated dough includes croissant dough and Danish dough.

### 4.2.3 Puff Pastry

Puff pastry has many layers that cause it to expand or “puff” when baked. Pastries are made using flour, butter, salt, and water. Pastry rises up due to the combination and reaction of the ingredients and also from the air that gets between the layers. Puff pastries come out of the oven light, flaky, and tender.

The gap which form between the layers is a result of the puff pastry rising as the water evaporates into steam during the baking process. Piercing the dough will prevent excessive puffing, and crimping along the sides will prevent the layers from flaking all of the way to the edges.

#### Puff Pastry Recipe

##### Ingredients

- 170g of plain flour
- 170g of butter
- 150ml of cold water
- 1 tsp of lemon juice
- Pinch of salt

##### Method of preparation

1. Sift the flour into a large mixing bowl and add the salt and 30g of the butter. Mix the butter into the flour with your fingertips. Stir in the water and lemon juice and mix the ingredients together to form soft dough. Turn out onto a floured marble surface and knead further to make a firm and pliable dough.



Fig 4.3

2. Wrap the dough and refrigerate for 30 minutes and soften the butter a little and shape it into a rectangle that is 1in thick. On a floured surface, roll out the dough to a similar rectangle shape but 3 times the length and 1 inch wider than the piece of butter. Place the butter in the centre of the dough.



**Fig 4.4**

3. Fold up the bottom third and fold the top third of the pastry down over the butter so that it is completely covered. Press down the edges of the dough so that they are sealed down. Turn the dough a quarter turn clockwise.



**Fig 4.5**

4. Roll the dough out again to the original length and fold over the top and bottom as before. Seal the edges again and turn a quarter turn clockwise. Repeat the same then chill in the refrigerator for 30 minutes. The dough can be covered and protected with greaseproof paper.



**Fig 4.6**

5. Remove from the fridge and repeat the rolling, folding and turning process two more times and then chill for a final 30 minutes before either using in a recipe or freezing.



**Fig 4.7**

#### **4.2.4 Choux Pastry**

Choux Pastry is light pastry dough used to make profiteroles, croquembouches, eclairs, French crullers, beignets etc. It contains only butter, water, flour, and eggs. This pastry is usually baked but for beignets it is fried.

#### **Choux Pastry Recipe**

##### **Ingredients**

- 80ml (1/3 cup) water
- 40g butter, at room temperature, cubed
- 50g (1/3 cup) plain flour, sifted
- 2 eggs, at room temperature



- Vegetable oil, to grease

### Method of preparation

- Place water and butter in a saucepan over medium heat. Cook, stirring, for 3-4 minutes or until butter melts and mixture just comes to the boil.



**Fig 4.8**

- Add all the flour to the butter mixture at once and use a wooden spoon to beat until well combined. Place over low heat and cook, stirring, for 1-2 minutes or until the mixture forms a ball and begins to come away from the side of the saucepan.



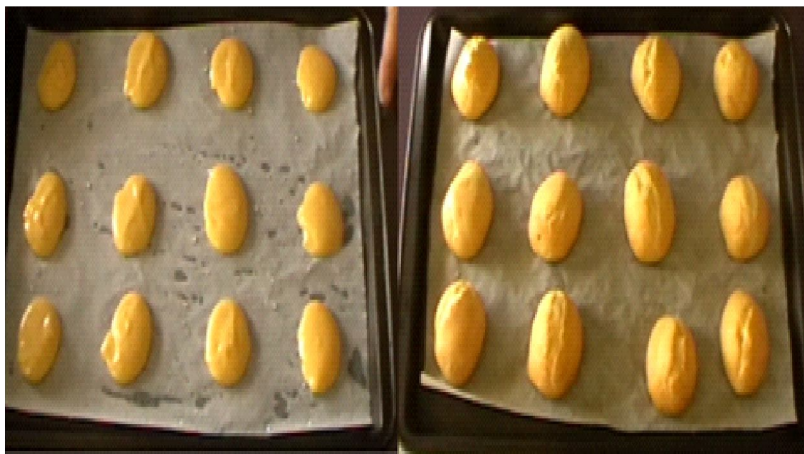
**Fig 4.9**

- Set aside for 5 minutes to cool slightly. Whisk 1 egg in a small bowl and set aside. Whisk the remaining egg in a small bowl, then add it to the flour mixture, beating well with a wooden spoon. Gradually add a little of the reserved egg and beat until the mixture just falls from the spoon but still holds its shape.



**Fig 4.10**

- Preheat oven to 200°C. Brush a baking tray with oil to lightly grease. Spoon 25-30 teaspoonsful of the mixture onto tray, about 3cm apart. Alternatively, use a pastry bag fitted with a 1.5cm-diameter plain piping nozzle to pipe the profiteroles onto the baking tray. Brush the tops with a little of the remaining egg. Bake in preheated oven for 25 minutes or until the profiteroles are puffed and golden.



**Fig 4.11**

- Remove from oven and turn the oven off. Using a skewer or a small knife, pierce the base (or top) of each profiterole to release the steam. Return the profiteroles to the oven and leave them for 15 minutes to dry out. Remove the profiteroles from the oven and transfer to a wire rack to cool.



Fig 4.12

#### 4.2.5 Introduction on icing

Appearance may be an eye catching for any bakery product. The icing of the cake improves and enhances the appearance of the cake. It makes cake attractive and traps moisture and taste in the cake for long time. There are different types of icings.

#### 4.3 Icings and pastry cream

Icing is a creamy glaze made of sugar with a liquid, such as water or milk that is often enriched with ingredients such as butter, egg whites, cream, and flavorings. It is used to cover or decorate baked goods, such as cakes or cookies.

Icing can be formed into shapes such as flowers and leaves using a pastry bag. Such decorations are common place on birthday and wedding cakes. Edible food colours are commonly added to icing mixtures to achieve the desired color. Sprinkles, coloring mist, edible ink designs, or other decorations are often used on top of icing.

Icing can be applied with a kitchen tool such as palate knife or spatula, or by rolling the icing out and draping it over the cake. The method of application largely depends on the type and texture of icing being used. Icing may be used between layers in a cake as a filling, or it may be used to completely or partially cover the outside of a cake or other baked product.

Pastry Cream is very dense, rich custard. It is a staple of French desserts such as *éclairs*, and is generally used as a filling in baked goods. The most basic pastry cream is made with vanilla, but it can also be flavored with chocolate,

lemon, orange, or other extracts. It can also be lightened slightly with the addition of heavy cream, if straight pastry cream is too dense for a particular recipe.

#### 4.3.1 Basic icing and pastry cream

There are different types of icings for different purpose. They are

#### 4.3.2 Butter cream

##### **Butter cream**

Butter cream recipe is made by creaming butter until pale with icing sugar, vanilla and milk. This soft, buttery icing can be spread over a cake or piped into patterns. It can also be flavoured with colour or chocolate and is perfect for small cakes, like cupcakes. Butter cream hardens on refrigeration, and does not keep for more than a few days. Remember to keep this icing cool as it icing melts easily.

##### **Butter cream recipe**

- 125 g of unsalted butter, softened
- 240 g icing sugar, sifted
- 2 tablespoons milk

Beat butter in a small bowl with electric mixer until as white as possible. Gradually beat in half the icing sugar, milk, then remaining icing sugar. Flavour and colour as desired.



**Fig 4.13**

#### 4.3.3 Fondant

##### **Fondant**

There are 2 types of fondant they are Poured fondant & rolled fondant

Poured fondant is a creamy confection used as a filling or coating for cakes, pastries, and candies or sweets. In its simplest form, it is sugar and water cooked to the soft-ball stage, cooled slightly, and stirred or beaten until it is an opaque mass of creamy consistency. Flavorings such as lemon or vanilla and various colorings are added to the mixture.

Rolled fondant, fondant icing, is not the same material as poured fondant, is commonly used to decorate wedding cakes. It includes gelatin and food-grade glycerine, which keeps the sugar pliable and creates a dough-like consistency. It can also be made using powdered sugar and melted marshmallows. Rolled fondant is rolled out like a pie crust and used to cover the cake.

### Classic pouring fondant

- 450g of granulated sugar  
240g of water 2  
tablespoons light corn  
syrup.
- Pour and heat water and  
sugar into a heavy-  
bottomed saucepan in  
order to make sugar syrup  
to a soft ball consistency.
- Put the mixture in blender  
when it comes to 135°C,
- Switch on the blender and  
stop when it's smooth,  
creamy, and opaque.
- Scrape into a container/  
polythene, and allow  
ripening for 12 hours or  
can be stored in  
refrigerator up to 12  
months.



### Classic rolled fondant

900 g of confectionary sugar  
 15g gelatin  
 50 ml tablespoons cold water  
 50 ml light corn syrup  
 25 ml 1 tablespoons Glycerin

- Mix gelatin with water and dissolve over a double boiler with simmering water until clear.
- Remove from the heat and stir in the corn syrup, Glycerin
- With the standing mixer turning on low speed, slowly pour the gelatin mixture into the bowl of confectioner's sugar. Continue beating on medium speed until well combined and very sticky.
- Transfer to a marble top and knead the sugar into the dough with the palm of your hand, then fold it over and continue adding sugar.



### 4.3.4 Ganache

This rich chocolate icing is made from chocolate (white or dark) and cream. Ganache can look shiny or matte and is also used as a filling or piped into decorations. White chocolate ganache can be tinted.

### Ganache recipe

300 ml cream 600 g chocolate	<ul style="list-style-type: none"> <li>• Boil cream, and remove from the heat.</li> <li>• Add the chopped chocolate and mix until the ganache is smooth.</li> <li>• Allow the icing to cool completely before using, and if it's too hard gently heat in the microwave to return to a spreadable consistency.</li> </ul>
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### 4.3.5 Royal Icing

#### Royal icing

Often confused with fondant, royal icing is a white meringue-like mixture made from egg whites, acetic acid and icing sugar. Royal icing is easily made at home, and has multiple uses. Becoming rock-hard once set, it is ideal for attaching decorations to cakes and is a popular icing for piping.

#### Royal icing recipe

120 g pure icing sugar 1 egg white 4 drops acetic acid	<ul style="list-style-type: none"> <li>• Lightly beat egg white in a small bowl.</li> <li>• Add icing sugar one tablespoonful at a time, beating well after each addition.</li> <li>• When icing reaches the desired consistency, add acetic acid and beat well.</li> </ul>
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### 4.3.6 Whipped cream icing

#### Whipped-Cream icing

350 ml whipping cream	<ul style="list-style-type: none"> <li>• Pour the heavy cream into the bowl and whisk on medium-high speed until it just starts to thicken.</li> </ul>
80 g granulated sugar	<ul style="list-style-type: none"> <li>• Slow the speed down to medium and gradually pour in the sugar and continue to whisk until soft peaks form.</li> </ul>
1 tsp. vanilla extract	<ul style="list-style-type: none"> <li>• Add the vanilla extract and continue to whisk by hand until the cream is smooth, and stiff peaks</li> </ul>



Fig. 4.14 Whipped cream icing

### 4.3.7 Non dairy cream icing

This is the standard industry icing that is used on commercial cakes and ice cream cakes today. Place the mixture in a large bowl and whip with electric blender the required whipping consistency.



Fig. 4.15 Whipping



### 4.3.8 Glace icing

This is the icing used to decorate cookies. Unlike royal icing, glace is shiny when dry and is not crunchy. Cookies decorated with glace icing take longer to dry.

#### Glace Icing recipe

- 120 g powdered sugar 35 ml water 10 ml light corn syrup
- Put all the ingredients into a bowl.
- Stir with a spoon until it is smooth without lumps.
- To get the right consistency, drizzle a little icing into your bowl. It makes little lines on the icing.



Fig. 4.16 Glace Icing recipe

### 4.3.9 Uses of icings in confectionary

- Icings act as protective layer for cakes
- It prevents moisture and taste to the cake
- It improves the appearance of the cake
- Cake can be made colorful with the help of icing
- Icing is used to improve the taste in the cake.

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**Short Answer Type Questions**

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1. What is Pastry? What are the different types of pastry ?
2. How to make short crust pastry.
3. Name the products prepared by short crust pastry.
4. What are Croissants and Danish pastry ?
5. How do you make profit rolls.
6. What are the uses of royal icing ?
7. How to make chocolate ganache.
8. What is the difference between dairy whipping cream & non dairy whipping cream ?

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**Long Answer Type Questions**

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1. Write the procedure of making puff pastry? Name 3 dishes made with puff pastry.
2. What is icing ? Write any four different icings used in the bakery.