

CHAPTER-5

Non-Alcoholic Beverages

Introduction

The term 'beverages' refer to all kinds of potable drinks which have thirst quenching refreshing stimulating, and nourishing properties. Beverages are consumed mainly to quench thirst, compensate loss of body fluid due to perspiration, feel fresh and active, as rituals, during social gatherings, and during and after eating.

Food service operators deal with a wide range of beverages to satisfy the requirements of guests before, during and after meals and at any time of the day.

Beverages are broadly classified into the following:

- Alcoholic beverages
- Non-alcoholic beverages

Non-Alcoholic Beverages

The term non-alcoholic beverages cover drinks that are either totally free from alcohol or that have less than 0.5 percent alcohol by volume (abv). It includes a gamut of drinks from hot to cold and from simple to exotic. Some of these drinks are made in the still room while some are made in the dispense bar. In an establishment where dispense bar is not available, the drinks may be collected from the still room. Every sector of the food service industry serves one or more type of non-alcoholic drinks. Establishments need not have a license to sell non-alcoholic beverages. It should be noted that water, is not covered by the term beverage.

The following are the categories of non-alcoholic beverages:

Coffee	}	Beverages made in the still room
Tea		
Milk-based drinks- chocolate, malted drinks, milkshakes		
Aerated drinks, squashes, Juices	}	Non-alcoholic beverages dispensed from the bar
Natural mineral waters (minerals), syrups		

Tea

It is defined as a universally drunk beverage made by infusing the leaves of an evergreen Asiatic shrub called “Camellia Sinensis”. There are two main types of the tea plant 1. Indian and 2. Chinese with numerous varieties and hybrids.

Best teas are cultivated at an altitude of 200 mts. The tea producing areas are located between 40 degree North and 41 degree South. The regions where good tea is cultivated generally have a hot and humid climate and a winter, which is neither very dry nor very cold.

Manufacture of Tea

There are five main stages in the manufacture of tea:

1. Withering the leaf:-On reaching the factory, which is usually close to the plantation, the plucked leaves are first weighed. They are then spread out evenly and thinly on special racks (slatted). At this stage, they lose 50% of their moisture by evaporation. This stage takes 24 hours, depending on the surrounding temperature and the humidity in the air.

2. Rolling the leaves: - The leaves are put through rolling machines that break up the leaf cells, thus releasing natural juices and bringing them into contact with air. At this stage, the finer leaves are separated from the larger coarser leaves and are then further separately processed.

3. Fermenting the leaves: - This isn't really a true fermentation, but the oxidation stage. Tannin, which is the astringent substance in the tea leaf, is oxidized and leads to development of aroma, flavour and colour of the leaf. The leaves are spread out in a cool but humid room under controlled conditions, on racks for approximately 3 hours, during which they turn a coppery colour by the absorption of oxygen.

Types (Market forms) of Tea

1. Tea Blends

Tea blends are a mixture of two or more varieties of tea grown on various plantations e.g. Orange pekoe, Broken Orange pekoe, Earl Grey, Darjeeling etc.

2. Tea bags

These are the modern convenient version of loose tea. They may contain up to 30 varieties of teas that have been blended together. The material used to make the bags is strong, yet porous enough to impart the flavour of the tea. They don't interfere with the flavour of the tea and they should be strong enough not to burst during the infusion. In spite of being costlier, tea bags have the advantage of aiding cost and portion control, besides being easier to dispose of the used leaves. Tea bags allow the individual to control the strength of his cup of tea.

3. Catering Packs

Catering packs are similar to tea bags as they are packed in specific quantities to make a fixed quantity of tea. They normally are available in ½ gallon, 1, 3 and 5 gallon packs. These are useful for large-scale production of the beverage.

Rules to make a good cup of Tea

- ‖ Use a good blend of tea.
 - ‖ Follow a recipe (For small quantities, 1 teaspoon per cup + 1 for the pot).
 - ‖ Use freshly boiled water.
 - ‖ Warm the teapot by swirling with hot water.
 - ‖ Add tea leaves to the warm pot (42.5-56.7 gms of tea leaves per 1 gallon (4.546 lt.)of water).
 - ‖ Take the pot to the water so that the water never goes off the boil. (Water should be 95 degree Celsius, before it is poured over the tea leaves)
 - ‖ Allow the infusion to stand for at least 3-5 minutes, stirring occasionally.
 - ‖ Remember – “Tea should be brewed, not stewed”.
- ‖ ½ lt. of milk may be enough for 20-24 cups.
- ‖ ½ kg. of sugar may be enough for 80 cups i.e. 2tsp/cup.

Iced Tea

Iced tea may be prepared with tea leaves or instant tea. A strong tea is prepared and poured over ice cubes. The strong tea compensates for diluting effect of the melting ice. Dissolved polyphenols may precipitate upon cooling and cloud the tea. The addition of lemon juice or small amount of water restores clarity. Instant tea could be combined with cold water to produce iced tea.

Tea Brands

- a) **Taj Mahal**
- b) **Twinnings of London – Earl Grey Tea**
- c) **Tata Assam**
- d) **Kannan Devan**
- e) **Brooke Bond**

Coffee

Coffee is the highest drunk beverage in the world after water. The coffee plant is native to Sudan and Ethiopia. A fierce red coloured fruit called as cherry contains the seed or the coffee beans. The word coffee has originated from the **Italian word “Caffe”** which in turn has originated from the **Turkish word “Kahve”** which originates from the **Arabic word “Qahwah”**.

1. **Coffee Arabica**
2. **Coffee Robusta**

1. **Coffee Arabica:** - It contains beans which are flat, elongated and oval in shape, mild and aromatic and considered to be the best in the world. They are grown in India, Ethiopia, Arabia and Brazil along with Mexico and Costa Rica.
2. **Coffee Robusta:** - It contains beans which are small, irregular in shape, and contains 2.5 times more caffeine than the Arabica beans. They produce a strong and bitter infusion. They are grown in Zaire and Ivory Coast.

Processing of Coffee

When the berries are ripe, they are picked by hand and taken or exported to the processing plant. The berries are about the size of a small cherry and consist of an external red skin, a layer of pulp, a tough parchment like inner membrane, a thin silver skin and finally two beans – rounded on one side and flat on the other – with the flat sides pressed against each other. Depending on the country where the processing takes place, either one of the following methods will be used:

1. **The Dry Method:** - It is used in the country which don't have abundant water supply or where the value of cured beans doesn't warrant the extra costs of washing. The berries are spread out thinly in the sun and left till the pulp shrivels tightly onto the parchment and allowed to dry. The berries are then put through a hulling machine, which removes the parchment and the pulp in one stage. Very little sorting of the berries is done and some may carry traces of the silver skin and lack the appearance of the washed beans.

2. **The Wet Method:** - This method is used in countries which have sufficient water supply and where the quality of the bean grown warrants extra processing costs. The berries are put through a de-pulping machine to remove the fleshy part of the berry leaving the two seeds in their jackets. They are then placed in large vats and are allowed to ferment partially for 24-40 hours. This fermentation serves two purposes. It helps to develop the aroma of the cooked coffee and also helps to remove any adhering pulp. When the fermentation stage is complete, the beans are thoroughly washed and then spread out in the sun to dry completely. The next stage is the removal of the parchment by machines, to leave just the clean olive green beans.

3. **Grading of Coffee Beans:** - The coffee beans vary with the country of origin, with letters or sometimes with the numbers used. It is usually accepted that the largest normal shaped beans are best quality and possess a fuller flavour, aroma and body than the other beans.

Storage

Care must be taken with regards to the storage of coffee. Since the flavouring oils are volatile, some flavour is lost after roasting and then again after grinding. Coffee powder should ideally be vacuum- packed and then stored in sealed airtight containers.

Preparation of Coffee Beverage

Good coffee can be made by several methods. The chief factor is the control of the method in order to avoid the loss of flavour and the extraction of indigestible amount of bitter substance.

1. Filtration

The drip pot consists of an upper compartment, which is perforated and lower compartment, which is a receiver for the filtered beverage. The perforations of the upper compartment are covered with thin filter paper or with cheesecloth to prevent the passage of coffee into the beverage. By this method, the water filters through the coffee into the lower compartment. Another type of pot commonly used for filtration is the Vacuum Coffee Maker.

2. Percolation

The percolator includes a pot, a coffee basket and a hollow stem to support the basket. Measured coffee is placed in the basket, which is placed on the steam, and then both are inserted into the pot.

3. Boiling or Steeping

Although coffee made by this method is usually described as boiled, the beverage made by heating the coffee and water together is more desirable in flavour, if not actually allowed to boil. Steeping (extracting flavour below boiling point) extracts much less of the bitter substances from coffee than boiling. The length of time of steeping varies with the temperature of water mixed with the coffee.

Steps in Coffee Making

Coffee is made by extracting flavours from ground coffee by dissolving it in hot water. The essence of making good coffee is to extract enough of these solids to make flavourful beverage, but not to brew so long as to make the coffee bitter. Points to be observed are as listed:

- } Use fresh coffee.
- } Use set measure of coffee around 10-12 oz per one gallon of water.
- } Use the right grind and the right brewing grind. A coarse grind requires more time for extraction than a fine grind.

Grind Extraction Time

Fine or Vacuum 2-4 minutes

Drip or Urn 4-6 minutes

Percolator 6-8 minutes

- } Use the right proportions.
- } Use fresh water.
- } Use water at the right brewing temperature [90°C to 93°C (195°F to 200°F)].
- } Use a good brewing procedure.
- } Use clean equipment.
- } Use good filters.
- } Use proper holding procedures.
- } Don't hold coffee for more than an hour.
- } The most appropriate temperature for service of coffee is 82 degree Celsius. And for milk the temperature should be 68 degree Celsius.

Speciality Coffees:

Name of the Coffee

Spirit/ Liqueur used

- | | |
|-------------------|--------------|
| • Irish coffee | Irish Whisky |
| • Highland coffee | Scotch |
| • Monks coffee | Benedictine |
| • Jamaican coffee | Rum |
| • Calypso coffee | Tia Maria |

Coffee Brands

- a) **Nescafe:** Produced by Nestle of Switzerland since 1939.
- b) **Gallies Coffee Company:** First founded in N.Y. in 1840 in USA.
- c) **Jacobs:** A famous and widely available coffee brand since 1885.
- d) **Grand Mere:** A popular French brand.
- e) **Veloure Noire:** It produces a mild blend of washed Arabica.

Non-alcoholic bar beverages

The drinks covered in this section are ‘non-alcoholic’ and contain no alcohol. These drinks are also often referred to as ‘soft drinks’ with alcoholic drinks sometimes being referred to as ‘hard’ drinks.

Non-alcoholic dispense bar beverages may be classified into five main groups:

- 1 aerated waters
- 2 natural spring/mineral waters
- 3 squashes
- 4 juices
- 5 syrups.