

# 10. Economically Useful Plants and Entrepreneurial Botany

## *Learning Objectives*

The learner will be able to

- ❖ Acquire knowledge about origin, area of cultivation and uses of various food yielding plants.
- ❖ Describe the different spices and condiments and their uses.
- ❖ Elicit the uses of fibre, timbers, paper and dye yielding plants.
- ❖ Acquire knowledge about the active principles, chemical composition and medicinal uses of plants.
- ❖ Gains knowledge of organic farming- bio fertilisers and bio pest repellants.

## *Key Points and Notes*

- ❖ The term pseudo-cereal is used to describe foods that are prepared and eaten as a whole grain, but are botanical outliers from grasses. Example: **quinoa**. It is actually a seed from the *Chenopodium*

*quinoa* plant belongs to the family Amaranthaceae. It is a gluten-free, whole-grain carbohydrate, as well as a whole protein (meaning it contains all nine essential amino acids) and have been eaten for 6,000 years in Andes hill region.

- ❖ Capsaicin is responsible for the pungency or spicy taste of chillies. Pungency of Chillies is measured in Scoville Heat Units (SHU). World's hottest chilli, Carolina reaper pepper measures 2,200,000 SHU. Naga viper chilli is the hottest in India that measures 1,349,000 SHU. Commonly used cayenne pepper measures 30,000 to 50,000 SHU.
  
- ❖ **Rubber - Vulcanization** Charles Goodyear invented vulcanization in 1839. He found that the defects in rubber articles could be overcome by heating rubber with sulphur under pressure at 1500 C. The process was called vulcanization. The name was given from the Roman God of Fire, Vulcan. Because of this, solid rubber tyres were used for first time in 1867. That is why we smoothly travel on road.

- ❖ Purified dissolving pulp is used as a basic material in the manufacture of rayon or artificial silk, fabrics, transparent films (cellophane, cellulose acetate films), plastics. The viscose process of making rayon is the most common process.
- ❖ 'Madurai Malli' is the pride of Madurai has a distinct reputation universally because of its uniqueness and has been given the Geographical Indications (GI) mark by the Geographical Indication Registry of India. Madurai malli has thick petals with long stalk equal to that of petals and the distinct fragrance is due to the presence of chemicals such as jasmine and alpha terpineol. This makes it easy to distinguish Madurai Malli from other places. This is the second GI tag for Jasmine after 'Mysore Malli'.
- ❖ Drugs come in various forms and can be taken in numerous ways. Some are legal and others are not. Drug abuse and misuse can cause numerous health problems and in serious cases death can occur.

- ❖ The Narcotics Control Bureau (NCB) is the nodal drug law enforcement and intelligence agency of India and is responsible for fighting drug trafficking and the abuse of illegal substances.
- ❖ Avoid spraying the plants during the sunny times of the day since it could burn plants. Many other plants possess insect repellent or insecticidal properties. Combinations of these plants can be fermented and used as biopesticide.