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### AGRICULTURAL CLASSIFICATION OR AGRONOMIC CLASSIFICATION:

Cereals, grain / seed legumes, oil seeds crops, root and tuber crops, sugar crops, latex and rubber crops, pasture and forage crops, and fiber crops are classified under agronomic crops or field crops. According to the use of plants and plant products to man, the grouping is made as follows:

- **Cereals:** The word 'cereal' is derived from "**Ceres**", the ancient Roman goddess of harvest who is the '**giver of grain**'. Cereals are cultivated grasses grown for their edible starchy dry grains. The grain of cereals is technically a type of single, dry, indehiscent fruit called caryopsis, which has a hard outer pericarp fused to the seed coat. The endosperm predominantly consists of starch. The cereals belong to the family Poaceae / Gramineae are grown for their fruits or one seeded fruit known as caryopses. Cereals are grown under a wide range of climate, ranging from very cold temperate to very hot tropical conditions. In the tropics, rice and maize crops. Oats and rye are the predominant cereals of cold temperate regions, whereas wheat and barley predominate in warm temperate climates. Cereal crops harvested green for forage, silage or grazing are classified as fodder crops. Examples: rice, wheat, maize.

A few millet crops are sometimes grouped under industrial crops. Examples: broom sorghum and sweet sorghum when grown for syrup.

- **Millets:** Millets are small seeded grains which are used for food, feed and forage purposes. The millets are classified into two groups viz., major millets and minor millets or small millets. The major millets are sorghum, pearl millet and finger millet in India. The small millets also refer to a group of small-seeded cereal crops. Small millets may also be called minor millets. The important small millets grown in India are foxtail millet, kodo millet, common or proso millet, little millet and barnyard millet.
- **Pulses:** Seeds of legumes which are rich in protein and used as food. e.g., pigeon pea, chickpea. Pulses are annual leguminous crops yielding grains or seeds used for food and feed purposes. The term "pulses" is limited to crops harvested for dry grain only, excluding crops harvested green for forage, used for grazing, as green manure, and also crops harvested green for food (green beans, green peas, etc.), which are considered vegetables. They exclude those used mainly for extraction of oil, eg, soybeans. They also excluded from this group should be those leguminous crops whose seeds are used exclusively for forage purposes, such as alfalfa and clover.
- **Oilseeds:** The crops produce seeds which are rich source of edible and industrial oil. Examples are sesame, groundnut. Temporary oil - bearing crops are annual crops and are usually called oilseeds. These are annual plants whose seeds are mainly used for extraction of culinary and industrial oils, excluding essential permanent oils - bearing crops are perennial plants whose seeds (kapok), fruits or mesocarp (olives) and nuts (coconuts) are used mainly for extraction of culinary or industrial oils and fats. Consequently, dessert or table nuts, such as walnuts, are excluded because although they are rich in oil content, they are not used mainly for extraction of oil. Both cotton seed and cotton lint (but not seed cotton) are considered by FAO to be primary crops and are classified in the oil crops and fiber crops groups. This is because seed cotton is a mixture of both food (seed) and non-food (fiber).
- **Green - manure crops:** Plants grown which are incorporated in situ during their latter growing stages to supply nutrients and organic matter to improve the soil quality. Examples are clover, vetch, daincha, sunnhemp, etc.
- **Forage crops:** Plants that are used for feeding the domestic animals reared in a farm. e.g., para grass, rhodes grass, lucerne and berseem. Fodder crops are cultivated forage crops which are cut and stall fed to livestock.

e.g., fodder maize, fodder cowpea, Bajra - Napier hybrid grass. Pasture crops are plants grown or managed as vegetable feed for grazing animals. They are classified as either native or improved species, grasses or legumes, and may be fed fresh or dry or in processed form. Examples: Cenchrus grass, para grass, napier grass, stylo, siratro and pea blue. Fodder crops may be classified as temporary or as permanent fodder crops. The temporary fodder crops are cultivated and harvested like any other crop. Temporary fodder crops are grown intensively with various cuttings per year. They contain three major groups of fodder: grasses, including cereals harvested green; legumes, including pulses harvested green; and root crops that are cultivated for fodder. All can be fed to animals as green feed; as hay, i.e. crops harvested dry or left to dry if harvested green; or as silage products. The permanent fodder crops relate to land used permanently (five years or more) for herbaceous forage crops, either cultivated or growing wild (wild prairie or grazing land), they may include some areas of forest lands that are used for grazing. Soiling crops are plants harvested as fresh green biomass before attaining the maturity to feed the livestock in stalls. Examples are maize, teosinte, oats, cowpea, berseem. Silage crops are grown for preservation in a succulent condition by partial fermentation in air tight container. Silage crops are grasses grown, cut, fermented and preserved before being fed to animals. Silage or ensilage is a method of preservation of green fodder through fermentation to retard spoiling.

- **Fiber crops:** Fiber crops are annual crops yielding vegetable fibers, mostly soft fibers, which are utilized by the textile industry to produce first thread and yarn, and, from these, innumerable fabrics are manufactured. The fiber is extracted from the bark, leaves, or other organs including the husk of coconut. There are different kinds of fibers based on the part of plant used as fiber. Eg., seed fiber (cotton), bark fiber (jute, mesta, roselle and flax), leaf fiber (pineapple and agave). Examples are abaca, jute, kenaf, maguey and ramie. The primary fiber crops are cotton, jute and flax.
- **Sugar and Sweetener crops:** Sugar crops are those crops cultivated primarily for the manufacture of sugar, secondarily for the production of alcohol (food and non-food) and ethanol. Sugar and syrups are also produced from the sap of certain species of maple trees, maize and sweet sorghum.
- **Narcotics:** The word 'Narcotics' seems to originate from the Greek word 'Narkotikos' which includes plants that produce a state of lethargy, torpor (numbness) or sleep. Crops used for stimulating numbing, drowsing or relishing effect. e.g., tobacco, ganja.
- **Beverage crops:** Plants used for preparation of mild, agreeable and stimulating drinks including fruit juices, tea, coffee, cocoa, toddy, beer and wine. They supply water which is essential to human nutrition. Some of these drinks also provide vitamins and minerals. Others have stimulating or relaxing effects. Examples: Seed (cacao, coffee) and Leaf (tea, yerba mate - *Ilex paraguariensis*).
- **Spices and condiments:** Spices are natural plant or aromatic vegetable products of tropical origin that are used in a pulverized state, primarily for seasoning or garnishing foods and beverages. These are characterized by pungency, strong odor and sweet or bitter taste. The spices cannot be grouped as foods since these contain less nutritive value. They stimulate the appetite and increase the secretion and flow of gastric juices. So these are usually known as "food adjuncts". The aromatic value of the spices is due to the presence of the essential oils. All aromatic vegetable products that are used for flavoring foods and drinks are known as spices. Examples of spices are pepper, cinnamon, cardamom, cloves, ginger, turmeric, nutmeg, mace, vanilla, chilies, garlic, onion and coriander. Condiments are spices or other flavoring substances which possess sharp taste and are commonly added to food after it has been cooked. Turmeric is used as an important condiment in India.

#### REFERENCES:

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