Classification of field crops
Field crops

- An agricultural crop (such as hay, grain, or cotton) grown on large areas.
- This includes other than fruits or vegetables.
- Field crops provide the food, feed grain, oil, and fiber for domestic consumption and are a major component of a nation in progress.
Classification of field crops

Field crops may be classified in more than one way. It may be on the basis of:

• The climate in which they are grown
• The season in which grown
• Life of the crop plant
• Source of water
• Root system of the crop plant
• Economic importance of the crop
• Botanical or morphological similarity in crops.
Classification on the basis of climate

• **Tropical crops** – rice, sugarcane etc
• **Temperate crops** – wheat, gram etc

Tropical Crops
– Monsoon climate, there is substantial and continuous cloud cover
– The warm and humid weather
– Length of the day is more at higher latitudes than tropics (Summer Solstice) – resulting in difference in photosynthesis.
Temperate Crops

– Requires cooler climates. Not necessarily all the time though.
– These plants endure cold and go to rest or dormancy by shedding of all their leaves during winter
– Need longer days
– Less humidity
Classification on the basis of season

- **Kharif Crops** – Crops which are grown in monsoon months (from June to October) e.g. Rice, Jowar, Bajara, Groundnut.

- **Rabi Crops** – Crops which are grown in winter season (from October to March) e.g. Wheat, gram, safflower, etc.

- **Summer Crops (Zaid)** – Crops which are grown in summer (from March to June) e.g. summer groundnut, water melon, cucumber etc.
Classification on the basis of Botanical or morphological similarity in crops –

- **plant kingdom spermatophyte**
  - Angiosperms (ovules are enclosed in an ovary wall.)
    - Monocotyledonous
    - Dicotyledonous
• The spermatophytes, also known as phanerogams or phenogamae, comprise those plants that produce seeds, hence the alternative name seed plants.
• Angiosperms - Seed-producing flowering plants whose seeds are enclosed within an ovary. Gymnosperms on the other hand, are Seed-producing non-flowering plants whose seeds are unenclosed or “naked.”
• Examples of angiosperms are monocots like lilies, orchids, agaves (known for agave nectar) and grasses; and dicots like roses, peas, sunflowers, oaks and maples. These are Hardwood.
• Gymnosperm examples include non-flowering evergreen trees such as pine, spruce and fir. These are softwood.
Everyday flowering garden plants are angiosperms

Apple tree, a flowering, fruit-bearing angiosperm
Pine tree, a gymnosperm with needle-like leaves and a cone.
- Monocotyledonous (Monocots) – consists of plants having seeds with one cotyledon. Herbaceous. Example – Grasses, Sugarcane, Maize, Rice, Wheat
- Dicotyledonous (Dicots) – consists of plants having seeds with two cotyledon. Both herbaceous and woody. Example – Mango, Neem, Sunflower, Legumes, Lentils
- A Cotyledon is a significant part of the embryo within the seed of a plant, and is defined as "The primary leaf in the embryo of the higher plants; the seed-leaf."
Classification on the basis of Economic Importance

<table>
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<tr>
<th>Category</th>
<th>Examples</th>
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<tr>
<td>Cereals:</td>
<td>Jowar, Maize, Ragi, Paddy, Wheat etc.</td>
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<td>Pulse:</td>
<td>Green gram, red gram, black gram etc.</td>
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<td>Legumes:</td>
<td>Cowpea, Field bean</td>
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<td>Oilseeds:</td>
<td>Sunflower, sesame, groundnut etc.</td>
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<td>Fibre crops:</td>
<td>Cotton, Jute, Sugarcane etc.</td>
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<tr>
<td>Fodder crops:</td>
<td>Jowar, Bajara, Maize, Lucerne etc.</td>
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