CHAPTER 16
Classification of Crops

OBJECTIVES
At the end of this chapter, students should be able to classify crops based on the following:
â uses.
â lifecycle.
â morphology

16.1 Introduction
A crop is a plant that is cultivated because it has economic value. They supply food, fibre, herbs and other useful materials. Examples of crops are maize, rice, cowpea, cotton and pineapple. There are many agricultural crops widely grown throughout the world. Others are growing wide in bushes and forest and have not been recognized by agricultural scientists. Therefore, to properly distinguish between such a large variety of plants, agricultural scientists have come out with ways by which agricultural crops are classified.

16.2 Classification of Crops
Crops are classified based on certain distinguishing features as follows:
(i) Uses
(ii) Lifecycle
(iii) Morphology

16.2.1 Classification based on their uses
Crops are classified based on their uses as follows:
(a) Cereal crops: These are crops that belong to the Poaceae family. They are a rich source of carbohydrate. Examples include maize, rice, millet, sorghum, guinea corn, wheat, barley and oat.

FIGURE 16.1 Cereals

(b) Legumes (pulses): These crops belong to the Fabaceae family. They are a rich source of protein and are noted for fi xing atmospheric nitrogen to the soil in conjunction with *Rhizobium bacterium*. Examples include cowpea, soyabean, pigeon pea, groundnut, and bambara groundnut.

FIGURE 16.2 Groundnuts

(c) Root and tuber crops: These crops produce tubers under the ground and they are a rich source of carbohydrates. Examples include cassava, yam, sweet potato and irish potato.

(d) Vegetable crops: These are crops grown for their edible vegetative parts or fruits which can be eaten fresh or cooked. They are very rich sources of vitamins and minerals which are essential for healthy human growth. Examples include amaranthus, celosia, okra, egg plants, waterleaf and lettuce.

FIGURE 16.4 Okro

e) Fruit crops: These crops have succulent fruits which are consumed fresh. They are rich sources of vitamins and minerals that are essential for healthy human growth. Examples include mango, pawpaw, pineapple, cashew, guava and apple.

FIGURE 16.5 Mango

(f) Beverage crops: These provide food drinks. Examples include cocoa, coffee, tea and kolanut.

FIGURE 16.6 Cocoa

(g) Spices: These are crops which add flavour to our food. Examples are ginger, pepper, onion and garlic.
(h) Oil crops: These are crops which produce oil when processed. Examples are melon, groundnut, oil palm, cotton and soyabean.
(i) Fibre crops: These are crops used for making clothes, ropes and snack. Examples are cotton, kenaf, sisal, wild hemp, jute and hibiscus.

FIGURE 16.7 Fibre crops (Sisal plant)

(j) Latex crops: These crops produce whitish sticky liquid called latex used for making plastics, for example, rubber plant and gum arabic (Acacia senegal).

FIGURE 16.8 *Acacia senegal gum*

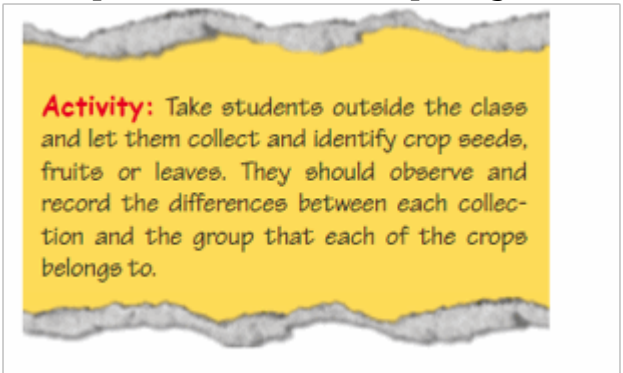
16.2.2 Classification based on their lifecycle

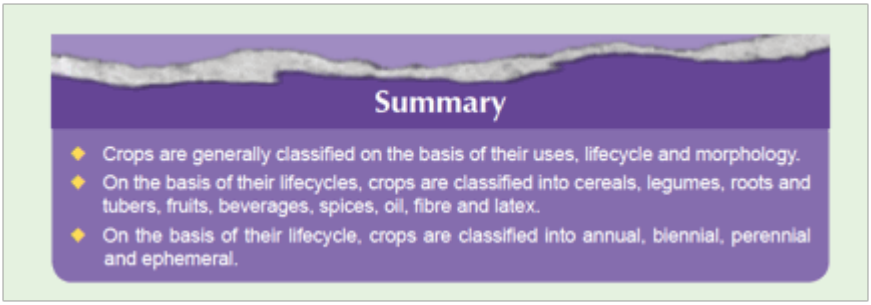
Lifecycle is the period from germination to harvesting. Based on this, crops are classified into four groups and these are:
(i) Annual crops: These are crops that complete their lifecycle within one year.
Examples are rice, cowpea, millet and groundnut.
(ii) Biennial crops: These are crops which complete their lifecycle within two years. Examples are carrot, pineapple and ginger.

(iii) Perennial crops: These are crops which complete their lifecycle in more than two years. Examples are mango, rubber and citrus.
(iv) Ephemeral crops: These are crops that complete their lifecycle within a very short time (probably within three months) for example, amaranthus, tomatoes, spinach and celosia.

16.2.3 Classification based on crop morphology

Based on their morphology crops can be classified into two groups as follows:
(i) Monocotyledonous crops: These are crops that have only one seed leaf(cotyledon).
Examples are rice, maize, oil palm, coconut, wheat and barley.
(ii) Dicotyledonous crops: These are crops that have two seed leaves (cotyledons).
Examples are cocoa, cowpea, groundnut, mango, citrus and soyabeans.





Revision Questions

Essays Questions

1. Define the following terms:
(a) Latex
(b) Cotyledons
(c) Monocotyledons
2. Classify crops on the basis of their lifecycle and give two examples of each.
3. State two ways in which crops are classified on the basis of their morphology.
4. State seven classes of crops based on their uses. Briefly explain them and give two examples in each case.
5. What are ephemeral crops?

Objective Questions

1. The grain crop which supplies carbohydrate belongs to which family?
(a) Leguminaeceae
(b) Fabaceae
(c) Poaceae
(d) Amaranthaceae
2. Which of the following classes of crop belongs to the family Fabaceae?

(a) Legume
(b) Latex
(c) Vegetable
(d) Fibre

3. On the basis of lifecycle, crops are generally classified into
(a) monocotyledonous and cotyledons
(b) dicotyledonous and dicots
(c) seed leaf and seed leaves
(d) monocotyledonous and dicotyledonous

4. What are latex crops?
(a) They are plant products which give rigidity and support to the plant.
(b) They are crops which produce whitish sticky liquid called latex used for making plastics, e.g. rubber plant.
(c) These are crops that have two seed leaves (cotyledons).
(d) These are crops which complete their lifecycle within two years.

5. What is the meaning of cotyledon?
(a) Grain crop
(b) Seed leaf
(c) Annual crop
(d) Seed crop

6. What are perennial crops?
(a) These are crops which complete their lifecycle in more than two years, e.g., mango, rubber, citrus, etc.
(b) These are crops that complete their lifecycle within one year, e.g. rice, cowpea, millet, groundnut, etc.
(c) These are crops which complete their lifecycle within two years, e.g. carrot, cassava, ginger, etc.
(d) These are crops that produce rubber annually.