

# **The principles of Crop Production**

## **Growth and Germination**

### **The first part**

The basis of all forms of agriculture is the growth of plants, and their utilization as food for man or for animals. Farming can only be carried on successfully in conditions in which plants will grow. Even a simple type of farming, such as the keeping of sheep on a hillside, depends upon the fact that certain plants, in this case grasses, are able to grow in this environment. Many systems of farming are concerned not with the plants that would flourish under natural conditions, but with crops that demand a considerable amount of time and attention from a farmer, who must provide them with conditions under which they will grow and yield on economic return. A thorough understanding of the principles and practice of crop husbandry must begin with a knowledge

of how a plant grows, and of the conditions in which a plant will grow successfully.

Plants of importance to agriculture are of many different forms, but they all consist essentially of three main parts. Below ground is the rooting system, which serves as an anchorage to attach the plant firmly to the soil, and which is able to absorb water, and water solutions of plant nutrients, from the soil. Above ground are the stems and the leaves, which are the green parts of the plant. The stems are, in most cases, rigid and capable of keeping the plant erect, and the leaves are arranged on the stems in a manner that exposes them to sunlight, from which they absorb energy for the manufacture of materials for plant growth. The third essential structure in a plant is the flowers, which contains the parts associated with reproduction and which is ultimately responsible for seed formation.

**Qs(1):**

**State which of the following statements is true and which false, according to the passage. Justify your answers by reference to the text.**

1. Successful farming can take place anywhere.
2. Sheep farming is complicated.
3. Sheep farming depends on a number of facts.
4. If he wants his crops to succeed the farmer must give them a great deal of time and care.
5. A knowledge of the conditions necessary for successful plant growth is essential for an understanding of the principles of crop production.
6. The three main parts of agriculturally important plants are (1) the rooting system, (2) the stems and the leaves, (3) the flower.
7. The rooting system has only one purpose.

**Qs(2):**

**Rewrite these sentences, replacing the words printed in italics by other words which are used in the passage. Change the order of the words in the sentence or add a word if necessary.:**

1. Some plants are able to grow in *these conditions that surround us*.
2. The stems are *standing upright*.
3. The third *necessary* structure in a plant is the flower.
4. A living plant is like *a system of transport containing in itself all that is necessary*.