

LESSON No. 27



GROW YOUR OWN FOOD

Any nutritional substance that people or animals eat or drink in order to maintain life and growth, is called **food**.

Some of our foods are from plants. We grow food plants. Fresh fruits and vegetables are important parts of our food.

To cultivate food for ourselves now has become a very important activity that is to be taken up to meet the food demands of modern world.



One of the most important aspects of food growing is to select the most proper or appropriate plants to be grown depending on climate, soil and rainfall. There are varieties of crops that are grown throughout the world. However, depending on the climate, soil, rainfall and available space; the variety, quality and quantity of certain crops may be selected.

We are familiar with the different types of food crops. For example, vegetables, fruit, grains are the sources of proteins, carbohydrates, vitamins and minerals. Grains are the primary foodstuffs which contain fibre and carbohydrates that can be stored easily for a long period of time. Some of the most important crops are corn, wheat, oats, rice, barley, etc. Beans, gourds, tomatoes, orchard fruits are the other sources of food energy.

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We use various types of tools for the cultivation of crops. Some of the important tools for preparing the field are sickle, hoes, plough, shovel, hammer, spade, animal and machine drawn harrows, axe, machete, mechanized machines, etc



Agricultural hoes



Shovels



Pick axe



Bund maker

Plough is a tool used in farming for initial cultivation of soil in preparation for sowing seed or growing. The primary purpose of ploughing is to turn over the upper layer of the soil, bringing fresh nutrients to the surface, while burying weeds and the remains of previous crops, allowing them to break down. Ploughs were initially drawn by oxen or horses or mules. Now, most of the old methods are superseded by tractors, power tillers and other ploughing machines.

* **What type of crops can we grow in our kitchen garden?**

* **Name some of the important vegetables you find in your locality.**

* **How shall we prepare the paddy field before the cultivation of rice?**

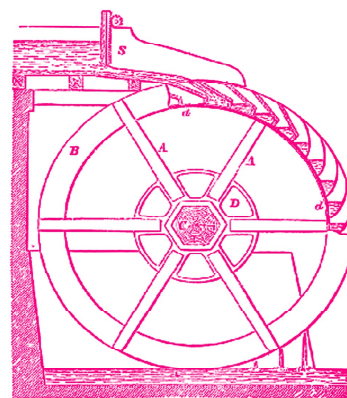
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- * **What are the important tools for preparing the field to grow crops in the kitchen garden?**
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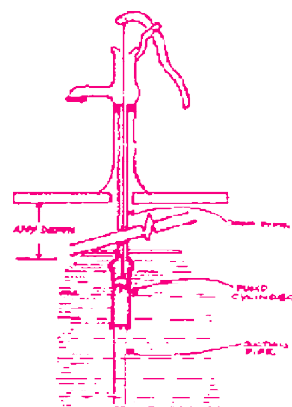
Watering of plants is one of the most important activities to be taken up while growing the crops. However, watering with care and appropriate dose is highly necessary. Establishing the correct water-air relationships in the soil is essential for the best growth of all plants. Watering too much or too often is likely to exclude the necessary oxygen from the soil pore spaces. Without enough oxygen, plants roots suffocate and die. Constant overwatering kills most plants.

We see different types of watering systems of plants starting from our manual hand sprayer can upto modern high pressure water sprinkler. For small area of cultivable land, water cans could be used. However, for those vast cultivable areas, water pumps, electric motors sprinklers are more convenient. Varieties of hand water pumps, sprayer can and other local made devices have been used in rural areas throughout the country including our state.

On the other hand, too little water, does not allow the roots to replace water lost by the plant through transpiration. The roots may dry up and die, and the top growth begins to show abnormal symptoms. In both cases, either too much or too little water, the plants suffers from lack of moisture in its tissues. Filling the entire root zone with water and then allow the soil to dry out partially before the next irrigation is good.



Water wheel



Hand pump

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Pipeline irrigation that is a more rational form of water control management and allows for more economic use of water resources.

There are different types of human and animal powered water lift . Some of them are better than others for different purposes. The correct selection of water conveyance and field distribution system can often have a greater influence on the effectiveness of system. The use of a well-optimized and efficient water distribution.



An underground sprinkler system

The amount of drying depends on the plants species and size. Large trees and shrubs can be allowed to several inches down in the soil before re-watering. Water is indispensable for all agricultural crops. The critical role of supplying only the necessary amount of water at the required time is performed by agricultural irrigation systems.

* **Why do we water our crops?**

* **How do we lift water through a pump?**

ACTIVITY

Make your own Water Wheel. Seek help of your parents/elders.