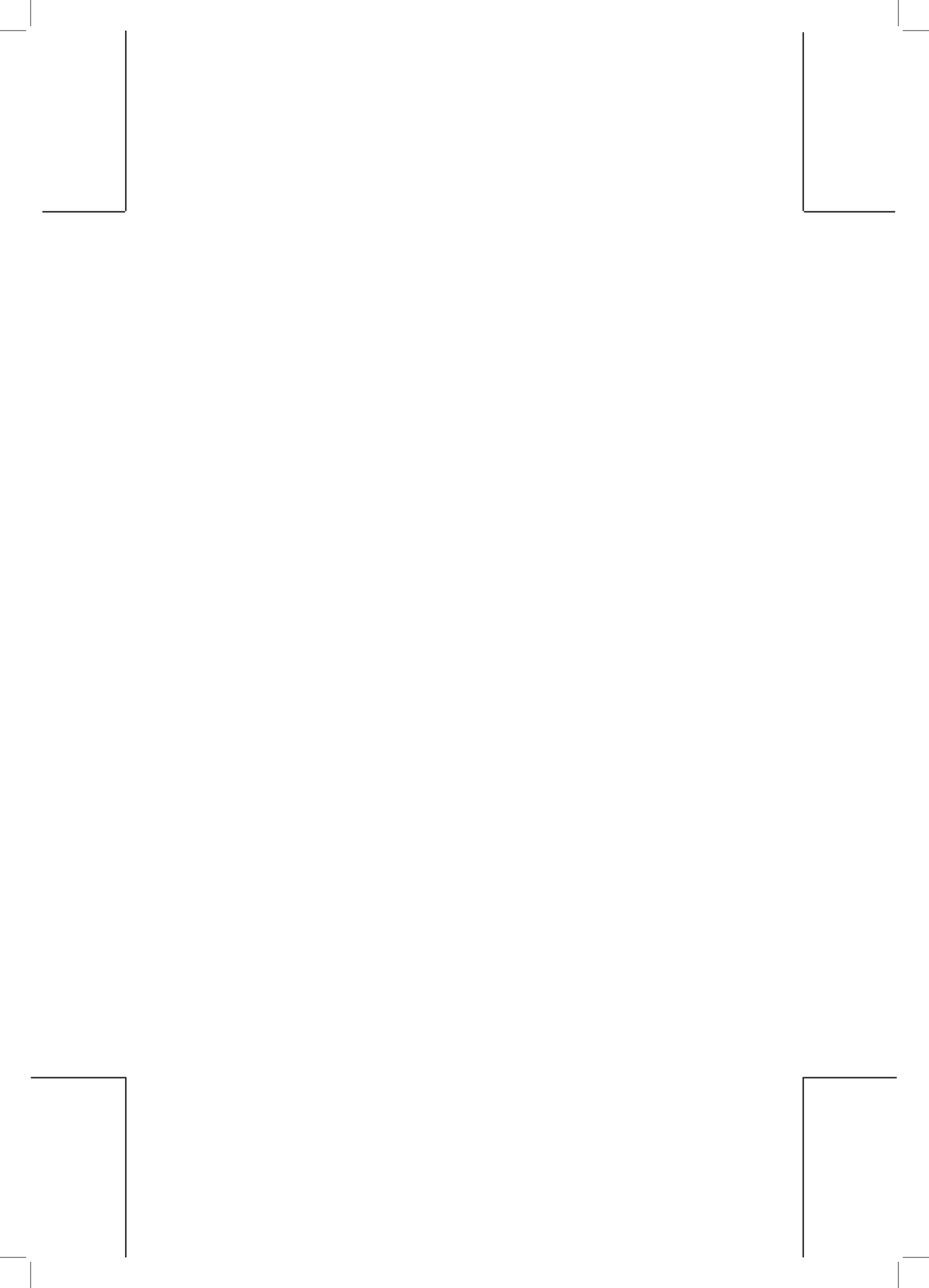


# How do Plants Provide Food?

## Class III Book 4





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## How do we get food from plants?

### KINDS OF PLANTS

Look at the plants on this page. How many different kinds of plants do you see?



*Figure 1 Dahlia*



*Figure 2 Pumpkin*



*Figure 3 Walnut*



*Figure 4 Tapioca root*

Plants grow in different shapes and sizes. Some plants grow tall and big. They are called trees. Look at the pictures given below and see if you know the names of these trees.



*Figure 1...*



*Figure 2 Gulmohar tree*



*Figure 3...*



*Figure 4 Fig Tree*

## Bushes

The small plants are called bushes. Some of these plants grow wild in the big forests. People plant some and they are mostly vegetables and flowers. Look at the pictures. Which of these vegetables and flowers grow in your area?



*Figure 1...*

## Climbers

There are plants that climb on to other trees and they are called climbers or creepers. These plants grow along the ground or up the walls and trees. They have long slender stems. They are flowering plants. These creepers give fruit in different shapes and sizes. Which of these climbers give big fruits and which of them give small fruits?

Do you know their names? What do you call them in your language? Do you know how useful these plants are to us?



*Figure 2...*



*Figure 3...*



## Trees

Look at the following pictures. What fruits do they give us? In what ways are these fruit trees different from one another?

Fruits are very important to people and animals. People grow fruit trees because they can eat them. Fruits have different tastes. Some fruits are sour and some are sweet. What kind of fruits do you like to eat?

Some fruits grow in warm places and others grow well in cold places. Fruits like apples, peaches, persimmon, and pears grow very well in cold places like Bumthang, Paro, and Thimphu. Can you name fruit trees that grow in warm places like Samtse, Tsirang, and Sarpang?



*Figure 1...*



*Figure 2...*

## **Types of fruits**

There are different types of fruit. Some fruits are hard and dry. Examples of hard fruits are walnut, coconut, and chestnut. Have you eaten any of these fruits? What type of taste do they have?

There are also fruit that have soft and juicy flesh. The best examples are mangoes, pineapples, and watermelon. Think of some more examples. Where can you find these fruits?

Fruit which are yellow and juicy are called citrus fruits. Oranges, lemons, limes, and grapefruits are types of citrus fruits. They are sour in taste when they are not fully ripened. Do you know the place where these fruits are found? Yellow fruits like mangoes and papayas have vitamins which are good for our eyes.

Some fruits we eat as vegetables. Some of these fruits like cucumber are eaten raw. Others like pumpkins can be cooked as curries. Name some more examples of vegetables that you grow in your vegetable garden.

Fruit trees grow in almost all parts of Bhutan. People harvest them in different seasons. Mangoes, bananas, pineapples, litchis, oranges and lemons grow in hot places. These fruits need a hot summer and a warm winter. Most of these fruits are ripe in early summer. A lot of oranges grow in Samtse and Tsirang dzongkhags. These are ripe in autumn. Lemons, litchis, and mangoes grow in Gelephu and Samdrup Jongkhar. Apples, plums, and peaches grow in Haa, Paro, Thimphu, and Bumthang since the cold weather is good for them. Guavas like cool and wet places. We can find these fruits in Chukha, Mongar, and Zhemgang.



*Figure 1...*



*Figure 2...*



*Figure 3...*



*Figure 4...*

## Tuber

A swollen underground stem or roots of a plant from which new plants can grow are called tubers. The tuber stores nutrients for the plants. Potatoes, ginger, cardamom, and turnips are some examples of tubers. What is this plant called?



*Figure 1...*

## Food Crops

There are many fruits which people use as foods. They are called grains. The most common grains grown by farmers living in warm places are rice, maize, and millet.



*Figure 1...*

Rice and maize can grow in hot and warm places like Samtse, Punakha, Sarpang, Chukha, Pemagatshel, and Trashigang.

Cooler places like Paro and Thimphu can also grow rice.

Buckwheat and wheat grow well in cold places like Haa and Bumthang.

Look at the pictures given below and find out which of these food grains grow in your place?



*Figure 1...*



*Figure 2...*




## Mushrooms

There are many different types of fungi. Some can be eaten but many are very poisonous. They are called mushrooms. They grow in different shapes and sizes. Many mushrooms have round top and short stem. Look at the pictures below and write the names of those mushrooms that have round tops. What local names do you have for these mushrooms?




 *Suillus luteus* Slippery jack




 *Amanita caesarea* ལྷོང་གསེར་ལག་སྐྱ ། Caesar's Mushroom

Mushrooms are mainly found in the summer. They need wet soil to grow well. Many mushrooms grow on rotting wood. Rotting wood provide food for them. This is why people can grow mushrooms at home. Ask your parents and neighbours the names of the mushrooms that people grow at home.



 *Lactarius piperatus* ལྷོམ་ལྷ་མུ། Peppery milk cap




 *Catathelasma imperiale* ལྷོམ་ལྷ་མུ།

There are also many mushrooms that like to grow on rotten leaves on the ground. What are the names of the mushrooms that grow on the ground?



 *Oudemansiella mucida*



 *Polyporus badius* ཀོམ་ལྷ་མུ།

Mushrooms are very good for health but if you eat the wrong ones you can die. It is very important to know the names and identify the mushrooms before you eat them. Next time you go to pick mushrooms make sure you take the right ones home.



Look at the pictures given below and try to identify the ones that you can eat. Copy the pictures and draw a spoon under the picture of the edible mushroom and a skull under the poisonous ones.



*Fistulina hepatica* ལྷེ་ག་ལྷ། Ox-tongue



*Morchella elata* ལྷོད་མ་ག་ལྷ། Morel



*Hericium erinacium* ར་མོད་རྒྱ་བོ།



*Amanita muscaria* Fly agaric



Amanita pantherina Panther cap



Cordyceps sinensis

དབྱར་ཚེ་དགུན་བྱེད།



ཐ་བརྱབ་མི་རབ།  
Edible Excellent



ཐ་བརྱབ་མི།  
Edible



བརྟག་ཞིབ་འབད་དགོ།  
Edible with Caution



ཐ་མ་བརྱབ་མི།  
Inedible



དུག་མི།  
Poisonous



དུག་གསུང་ཤོས།  
Deadly poisonous

**དྲན་བསྐྱེད་:**

ཤ་ལྷ་ལས་བརྟེན་ཤི་རྒྱུན་འབྱུང་ནི་གི་ཉེན་  
ལ་ཡིད་ལས་བསྐྱེད་འབད་མ་ད་བརྟག་  
ཞིབ་ལེགས་ཤོམ་འབད་དགོ།

**Caution Note:**

Pick and consume only the mushrooms that you know are safe for eating.  
Avoid mushroom poisoning.

## How are seeds taken to different places?

### Dispersal by wind

Many fruit plants have different shapes and sizes to help the seeds travel to different places. Some seeds are very small, light, and have soft hair. When the fruit breaks open the wind blows the seeds to different places far away from the mother plant. Flowering plants like dandelion, poplar, cotton, blue poppy, and primula have soft and hairy seeds. Find a plant with soft hairy seeds and try blowing them away.



## **Dispersal by animals, birds, and people**

Some plants have sticky hairs or thorns. When animals and people walk past them the seeds stick to animal hair and people's clothes. Go for a walk in autumn and see which seeds stick to your clothes. Find out the plants that have sticky or thorny seeds from your school surroundings.

Some plants like tomatoes, cucumbers, and oranges are eaten by both people and birds. These seeds remain inside the stomach and come out in stools. That is why we can see new plants growing in different places although the parent plants are not seen. The seeds of food crops are often stored by people to plant in the following year. This is another form of seed dispersal.

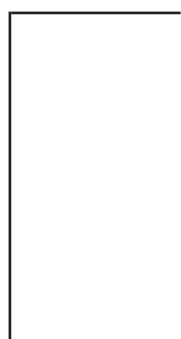
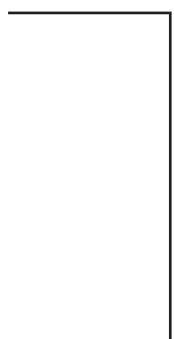
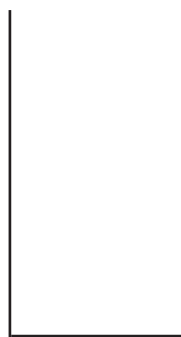
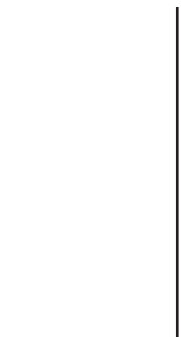
### **Natural dispersal**

Plants like peas, beans, and radishes break open when the seeds ripen. This helps the seeds fall away or spring out from the plant. When it is autumn, find a plant and touch its fruit. Watch carefully how the plant sends its seeds into the air.

### **Dispersal by water**

Have you ever seen a coconut tree? Coconut trees often grow beside water. When the fruit is ripe it falls into the water. The fruit can float on the water and is carried away to far away places. That is why coconut trees are often found growing on sea beaches.





## **VISION**

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