

The Plant Transport System

- There are tubes for transporting water and food in plants.
- The **water-carrying tubes** are called **xylem**. They transport water and dissolved substances from the roots to all parts of a plant.
- The **food-carrying tubes** are called **phloem**. They transport the food made by the leaves of the plant during photosynthesis to all parts of the plant.

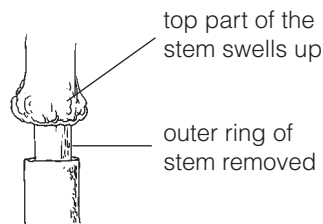
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Experiment

Let's find out what happens when the food-carrying tubes (phloem) are removed.

Select a portion of the stem of a plant for the experiment. The outer ring of stem is then removed. After a few days, it is observed that the stem at the upper section starts to swell up.



Explanation

The reason for the swelling is that the food made in the leaves is unable to travel downwards since a portion of the food-carrying tubes has been removed. The food accumulates there and the stem swells.

The plant continues to live because the water-carrying tubes (xylem, inner layer) are still intact and the water absorbed by the roots is able to travel upwards to the leaves for photosynthesis to occur.

Adapted:

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