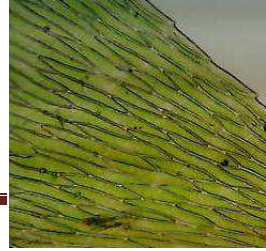




Examination of Vaporization



Necessary tools and materials:

U shaped glass tube, drilled rubber stoppers, curved glass tube, leafy shoot (poplar, beech, horse-chestnut...), water .

Description of experiment:

Get a freshly-cut leafy shoot interposing with a drilled rubber stopper into a U shaped glass tube.

Also plug the other end of the U shape tube inserting a bent glass tube into the hole of the rubber stopper.

Fill the whole system with water so that there also would be water in the rectangular thin tube.

Result:

Because of the vaporization of the plant the waterspout slowly begins to go backwards, so it begins to decrease.

Explanation:

During the process the plant gives off vapor to the environment. The process occurs predominantly through the gas-exchange stomata.

Vaporization also has a great importance in the temperature control of plants.

(When the water content of guard cells of gas-exchange stomata is high, the air gap opens and the plant vaporizes more. When the water content of guard cells reduces, the two cells close the air gap and the vaporization reduces.)