

ACTIVITY 14

INVESTIGATION AND MEASUREMENTS OF FACTORS AFFECTING RATE OF TRANSPIRATION

Requirements:

- (i) Ganong's potometer
- (ii) A living twig
- (iii) Beaker with water
- (iv) Stand and clamp

Theory:

The loss of water from aerial parts of plant body in the form of **water vapours** is called **transpiration**.

Many factors like **wind**, **removal of leaves**, **closing of stomata** affect the rate of transpiration, which can be measured by Ganong's potometer.

Procedure:

- (i) A leafy shoot of some plant such as sunflower or tomato is cut under water to prevent air from entering in xylem vessels.
- (ii) The shoot is inserted in one tube of Ganong's potometer through a hole of cork.
- (iii) The apparatus is completely filled up with water.

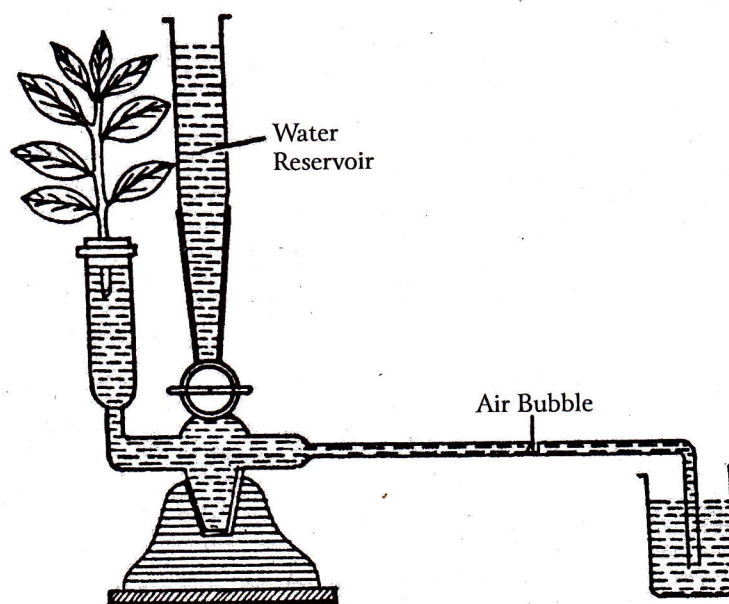


Fig. 32: Rate of Transpiration -- Ganong's Potometer