

Trap It In



On a hot summer day, a willow tree can use and lose more than 5,000 gallons of water!

Equipment/Materials

tree or shrub plastic bag
string or tape small pebble
measuring cup/spoons or graduated cylinder

Procedure

1. Place a plastic bag around a small branch of a tree, making sure to surround to seven leaves.
2. Place a small pebble in the bag.
3. Secure the bag tightly to the stem, trying to make an air-tight seal; and leave it in place for 24 hours.
4. Record the number of leaves in the bag.
5. Remove the bag carefully, taking care not to lose any of the collected water. Pour the water into a suitable container to measure the amount (measuring cup/spoon or graduated cylinder).
6. Record the amount of water transpired by the leaves in the 24-hour period.
7. Estimate the number of leaves on the entire tree or shrub.
8. Assuming that each leaf transpires about an equal amount of water, calculate how much water the tree or shrub transpired in the 24-hour period.

