**IRRIGATION**

All plants require water for growth. They get water from the soil and lose most of it through their leaves by **evaporation** (transpiration). Plants receive water from either rain or irrigation. How much water is available for a plant depends on the **depth** and **spread of the roots**. Most roots are located within three feet of the surface. When there is sufficient water, most of it is supplied from the top, and reaches a 3 to 4 feet depth into the soil. In dry periods, deep-rooted plants can draw water from lower roots.

During dry periods, or in areas where irrigation is a necessity, a farmer must keep a close eye on his trees to determine when they need water.

Signs of water stress include **wilting**, a change in leaf color (from shiny to dull, or from dark green to gray green), and premature **leaf fall**. There are numerous ways to water efficiently: **basins, furrows, sprinklers, soakers**, or **drip systems**. The most important goals are to eliminate **run-off**, to confine water inside the drip line of branches, and to apply water uniformly. The purpose is to make as much of the applied water available for the tree as possible.

1. Questions

1. According to the text, what do plants need water for?

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2. Where do plants receive water from?

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3. Which plants can draw water from lower roots in dry periods?

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4. What are the signs of water stress?

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5. Which are the ways of watering efficiently?

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1. Say whether the following statements are True or False.

a. All plants require water for growth.

b. Plants receive water only from rain.

c. They lose most of the water through their leaves by transpiration.

d. There is only one way to water plants efficiently.

**VOCABULARY**

Evaporation=εξάτμιση (εξατμίζεται το νερό)

Depth=βάθος

spread =εξάπλωση

wilting=μαρασμός

basin=λεκάνη

Furrow=αυλάκι

Sprinkler=ψεκαστήρας

Soaker=λάστιχο ποτίσματος με μικρές τρύπες (εμποτιστής)

drip system=σύστημα στάλαξης

run-off=διαφυγή

efficiently=αποτελεσματικά