

GOAL: LEARN HOW MUCH WATER TO APPLY TO LANDSCAPES AND WHEN TO APPLY IT.

REASON:

- REDUCE COSTS
- CONSERVE WATER
- REDUCE NON-POINT POLLUTION
- MAINTAIN AN ATTRACTIVE LANDSCAPE



IRRIGATION AUDIT CHECK

It is important to understand landscape soil characteristics, including soil texture, water holding capacity, and water infiltration rates. Heavy soils that contain clay and silt can reduce water infiltration to less than 1/2 inch per hour.



WATER INFILTRATION TEST

1. Use a coffee can with the top and bottom removed. Mark the inside of the can with 1 inch increments.
2. Insert one end of the can into the soil in the irrigation zone, making sure the can cuts through the turf and thatch in the test area.
3. Fill the can with water, to the 2 inch mark on the can. Allow time for the water to soak into the soil.
4. Measure the time for this amount of water to soak into the soil with a timer. Divide this amount of time by 2. This number is the infiltration rate for the lawn.



IRRIGATION SYSTEM PERFORMANCE TEST



1. Select flat bottomed, straight-sided containers, such as coffee or tuna cans.
2. Space the cans uniformly 10-15 feet apart, not to exceed 15 feet.
3. Use a marker to mark inside the cans, ever 1/2 inch.
4. Run the irrigation system in each zone for a minimum of 15 minutes.
5. Record the measured amount of water in each can. Add these measurements together.
6. Divide the amount of water by the number of cans that were used in the test.
7. The final number is the amount of water applied on average in the zone for the amount of time (15 minutes) in the test.
8. The final measurement is applied to Table II to determine how many minutes are needed to apply one inch of water in a set amount of time.

TABLE I: WATER DEPTHS OBTAINED FROM THE CATCH-CAN TEST RUN FOR 15 MINUTES IN ORDER TO DETERMINE THE SYSTEM'S WATERING RATE.

<i>Can Number</i>						
1	2	3	4	5	6	WATER TOTAL (Inches)
3/8"	7/16"	5/16"	5/16"	3/8"	7/16"	36/16"
AVERAGE DEPTH (Inches)						
Divided by 6 cans equals 6/16" or 3/8"						
Average depth of water measured is 3/8" in 15 minutes.						

TABLE II: OPERATION TIME NEEDED FOR A SYSTEM TO APPLY AN AVERAGE OF 1 INCH OF WATER, AFTER YOU HAVE MEASURED THE WATER DELIVERED IN 15 MINUTES.

<i>Average Depth of Water in Cans (Inches)</i>											
	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	11/16	3/4
Time (min.)	120	80	60	48	40	34	30	27	24	22	20

IRRIGATION SYSTEM ANNUAL MAINTENANCE

- Irrigation system equipment and parts will wear out over time and must be replaced to keep it functioning efficiently and to its full capacity.
- Look for bad connections, frayed wires, and unreadable indicators on the control system box.
- To check for valve leaks, turn off the water and read the meter for the night. After 12 hours, read the meter again to check for meter differences.

