



## URBAN WATER PROGRAM

# TEXAS A&M AGRI LIFE RESEARCH | EXTENSION

## IRRIGATION CHECK-UP

A landscape is kept healthy and beautiful with efficient irrigation practices. Irrigation problems damage a landscape by creating too dry and/or too wet areas and result in water loss and high cost. An irrigation check-up will identify problems with the system, sprinklers and help you estimate how long to run each station or zone.

In many communities during the summer, 30 to 50 percent of the total water used is for landscape irrigation. To save water resources and money, apply water to a landscape as efficiently as possible. Check the irrigation system at least twice a season for problems.

**Step 1.** If you have the original irrigation system design, make a copy so you can make notes on it. If you do not have the original design, you may find it useful to sketch the irrigation layout and number of sprinkler heads in each station. Number the heads on the sketch so you can make notes about each head.

**Step 2.** Run each station and observe each sprinkler head to see if the sprinkler head is running and distributing water properly. Note which sprinkler heads are working correctly and which require attention.

Look for these problems:

- Sprinkler heads spraying water onto the sidewalk, driveway or road
- Sprinkler heads missing, not operating, with reduced water flow or poor distribution pattern
- Sprinkler heads broken, gushing water out the top or not popping up
- Sprinkler heads no longer straight up and down
- Sprinkler heads that cause a cloud of mist
- Grass, shrubbery or tree blocking distribution pattern
- Dry landscape areas

Possible causes:

1. Low system water pressure, a plugged nozzle or wind
2. Irrigation heads installed too far apart or not in a recommended square or triangle pattern

# IRRIGATION CHECK-UP (CON'T.)

Step 3. Repair all problems yourself or hire a licensed irrigator. Most repairs require cleaning out a sprinkler head. Once all repairs are made, you are ready to run the system and time how long each station should run.

Step 4. Check for uniform distribution. Collect several empty, straight sided cans, such as cat food or tuna fish cans. Use a minimum of 3 cans per sprinkler head. 5 cans per station are even better. Mark the inside of each can like a rain gauge with markings for  $\frac{1}{2}$ ",  $\frac{3}{4}$ ", and 1".

Step 5. Place cans throughout one irrigation station.

Step 6. Run the first station on for 15 minutes.

Step 7. Write down how much water is in each can. The ideal irrigation system distributes water uniformly in the area and therefore each catch can should have the same amount of water.

Step 8. Repeat these procedures for each station.

Step 9. Estimate the amount of water your landscape requires: Variables include the amount of sunlight, type of plants, type of soil, time of year and amount of precipitation.

- Turf areas in full sun on clay soil during the summer require about 1 inch of water every 5 to 7 days.
- Turf areas in full sun on sandy soil during the summer require about 1.5 inches of water every 5 to 7 days.
- Turf areas in full sun on clay soil during the winter require about 1 inch of water every 15 to 20 days.
- Turf areas in full sun on sandy soil during the winter require about 1.5 inches of water every 15 to 20 days.
- Shrub, groundcover and perennial areas require about half the amount of water turf areas require, if you keep 2 to 4 inches of mulch covering the root area.
- Water plant containers and vegetable gardens as required.

Step 10. Do the math. You now know how many inches of water is applied to each station in 15 minutes. Set your controller according to how much time is necessary for each station to provide the estimated amount of water for the plants in that station. If you do not have an instruction manual for your controller, order one from the manufacturer either by telephone or on the internet.

Step 11. Change the irrigation schedule each season (most controllers have an A and B schedule):

- Spring: use 20% less than the average summer schedule or as needed because we receive so much rain in the spring.
- Fall: use 30% less than the average summer schedule or only as needed.