Sprinkler Test

You can develop a better understanding of your sprinkler irrigation system by conducting a quick test. The purpose of this test is to measure the precipitation rate (sprinkler application in inches per hour) and observe the uniformity of your system.

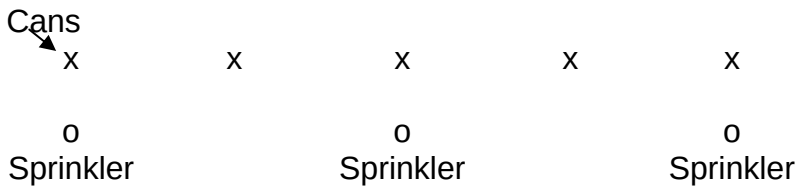
Time: Usually can be completed in 30 minutes - 10 minutes to setup, 10 minutes to run the test, and 10 to record the measurements and make calculations.

You will need:

- Paper and a pencil to write your observations and record measurements;
- Ten clean, straight-sided containers of the same diameter and height (tuna cans work well);
- Ruler;
- Stop watch or timer.

The test is conducted in three simple steps:

1. **Setup**: Run your system and make adjustments (straighten leaning sprinklers, remove vegetation that obstructs spray patterns, unclog nozzles, and adjust spray nozzles to avoid watering non-target areas). Choose an area of five or more sprinklers that are representative of your site. Turn the system off and place the containers on the lawn within the area chosen. Set the containers in a grid pattern, placing about half of the containers 2 to 3 feet from sprinklers and the other half of the containers between sprinkler heads.



2. **Initial Test**: Turn the system on and run your sprinklers for 10 minutes.
3. **Data Collection**: Use a straight ruler to measure the height of water in each container in inches, noting the variation in measurements.

To calculate the precipitation rate of your sprinklers, add up all the measurements from each can and then divide by the total number of cans to determine the average can depth. Multiply the average by 6 to determine the precipitation in inches per hour. Write this number down and save it. This is key for developing effective irrigation schedules as described in Scheduling Overhead Irrigation.

To understand more about uniformity, look at the differences between the measurements in each can. Are the low measurements all in one area? Is the difference between measurements significant? You may have to experiment further with adjusting sprinkler heads and retesting your system. To achieve good uniformity sprinklers may need to be relocated, added, or removed.