STEP BY STEP

# How to do an irrigation audit

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An irrigation audit is a good opportunity to ensure clients' irrigation systems are working properly. Use the findings to create or tweak irrigation schedules for efficiency.

Before testing the system, check that it is in proper working order and complies with local codes. Identify and correct any defects.

While doing the audit, monitor the wind speed, and record it every five minutes. The wind must be 5 mph or less.

Perform the audit during the same time of day irrigation normally takes place. Use the appropriate pressure-testing device at the beginning and end of each zone.

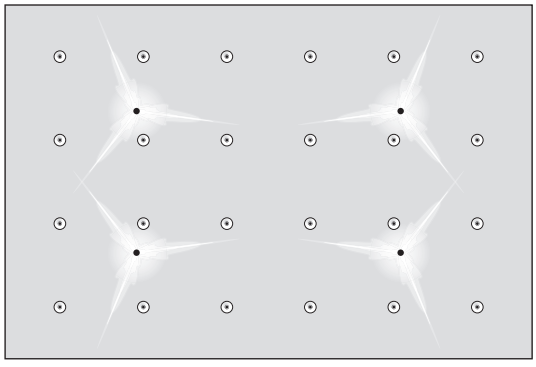
Place the catchments along the edge of each zone 12 to 24 inches in from the edge. Use at least 24 uniform catch devices. Larger collectors give better repeatable results. Spacing and test runtimes should be consistent and appropriate for the sprinkler type and arc. Run the system for the same amount of time commonly used to irrigate the area.

After the system runs, the water volume (in milliliters) should be one and a half times the throat area (in square inches) of the catch device. So, if the throat area of the catch device is 30 square inches, the average volume of the water should be 45 ml (30 x 1.5 = 45). If the water catchment is below average, it will affect distribution, and you may need to increase the pressure. When the water level is too high, it means there's excessive pressure, which may damage the system.

If there are several identical zones (same heads, spacing, pressure and more), you may test one-third to one-half the zones to get an average.

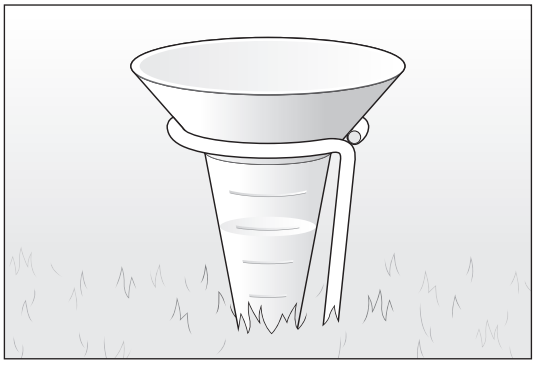
Don't forget to record the following data: head locations, head spacing, make/model/nozzle sizes, catch device locations, catchment readings, test run time, meter readings (if available), pressure readings with locations, wind speed readings, soil types, root zone depths and the date you tested.

SOURCE: The Irrigation Association



## STEP 1

**Equally space at least 24 calibrated catch devices with metal support stakes throughout the zone. Run the irrigation system for the required time.**

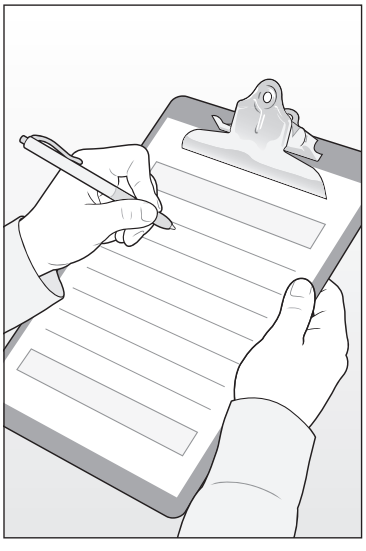


## STEP 2

**Multiply the catch device's throat area in square inches by 1.5. Check the water volume in milliliters in the catchments to make sure it equals the same amount.**

## STEP 3

**Record and document your findings throughout the audit, making sure the wind speed stays 5 mph or less.**



ILLUSTRATIONS: DAVID PREISS