

# Aggie Irrigation Catch Can

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The Aggie Catch Can “Device” is a modified graduated cylinder used for conducting an Irrigation System Test. By conducting an Irrigation System Test (or a “catch can test”), irrigators can make a better use of water resources by scheduling irrigation events more efficiently. Such tests are also useful for identifying problems within the irrigation system.



## Conducting the Irrigation System Test

Conducting an Irrigation System Test is very simple when using the Aggie Catch Can. This device measures irrigation volumes in both Milliliters (ml) and Inches (in). To conduct an Irrigation System Test, place the catch cans in a grid-like pattern within the irrigation station or the irrigated area. An irrigation station is defined as all the sprinkler heads controlled by a single valve. Common runtimes to use when conducting the Irrigation System Test are as follows:

- Spray Heads: 5-10 minutes
- Rotor Heads: 10-15 minutes

By recording irrigation volumes and the runtime of the irrigation system, you can calculate the Precipitation rate (PR) of the irrigation zone. An Irrigation System Data Sheet appears on the back of this page.

## Calculating the Precipitation Rate Using Inches

Step 1: Determine Average Can Depth.

$$\text{Average Can Depth} = \frac{\text{Sum of Can Depths}}{\text{Total \# of Cans}}$$

Step 2: Calculate the Precipitation Rate (PR)

$$PR = \frac{\text{Average Can Depth, inches}}{\text{Runtime, minutes}} \times 60$$

Precipitation Rate = Inches per Hour (in/hr)

## Calculating Precipitation Rate Using Milliliters

When using milliliters to calculate Precipitation Rate (PR) you use the following equation:

$$PR = \frac{3.6612 \times \sum Vol}{\# \text{ of Cans} \times 16.61 \times \text{Runtime}}$$

PR = Precipitation Rate, in/hr  
 $\sum Vol$  = Sum of Can Depths, ml  
 Runtime = Minutes

## Producing Irrigation Schedules

There are multiple resources available to assist in scheduling irrigation once a precipitation rate has been calculated. Irrigators can access online resources such as the TexasET Network (<http://TexasET.tamu.edu>) to calculate weekly schedules based on real time ET or purchase a software package such as the Texas Irrigation Scheduler to produce seasonal based irrigation schedules. Contact your County Extension Office for more Information.

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