

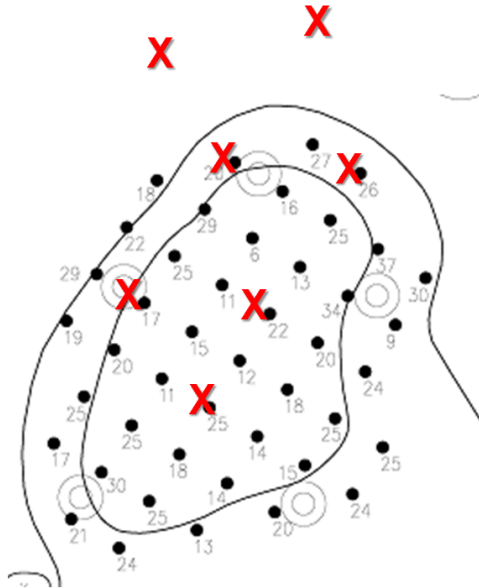
Minimum Catch Cup Quantities

For Irrigation Auditing

Project Purpose

To determine the minimum numbers of catch devices required to accurately repeat irrigation auditing results. Three different papers over the last two years were presented to vent the theory and to receive input from stakeholders.

Project elements included: auditing, statistical analysis using real field data, three professional presentations to present the research, and stakeholder input.



Role of Irrigation Consultant

Directly responsible for data collection, analysis, research, calculations and hypothesis to perform the analysis.

- Worked with University of Arizona Extension Service personnel and other industry individuals/companies to obtain additional auditing data to supplement the analysis.
- Analyzed required quantities for different sized sprinklers to see if spacing influenced the numbers, which required including sprinklers in the 60-80 foot range, 30-40 foot range and 12-18 foot range.

Special Factors

- A large number of in-field audits was performed.
- Audits were done for three different sprinkler sizes, spacings and types (VIH, rotors, sprays).
- The analysis and research are statistically based, as opposed to irrigation based.
- Results have been adopted in the Irrigation Association Auditing guidelines.

Significance

- Under current auditing guidelines developed by the Irrigation Association there is no minimum catch device amount specified to perform an audit.
- Many audits are performed with a small number of catch devices to save money and time.
- In order for an audit to be credible, it must be repeatable—not only for the same site, but by different auditors.
- This research establishes a minimum number of catch devices required to provide a repeatable and credible audit, which is extremely important to the irrigation industry long-term.

