

**ASAE S398.1 MAR1985 (R2016)**  
**Procedure for Sprinkler Testing and Performance Reporting**



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# **Procedure for Sprinkler Testing and Performance Reporting**

*Proposed by The Irrigation Association, Sprinkler Manufacturer Division, Sprinkler Testing Subcommittee; approved by the ASAE Soil and Water Division Standards Committee; adopted by ASAE as a Tentative Standard December 1979; reconfirmed March 1982, December 1982, December 1983, December 1984; revised and reclassified as a full Standard March 1985; reconfirmed December 1990; reaffirmed December 1995, December 1996, December 1997, December 1998; December 1999, January 2001, February 2006, January 2007; January 2012; October 2016.*

**Keywords:** Irrigation, Sprinkler, Test

## **1 Purpose**

1.1 This Standard has the following three purposes:

1.1.1 To define a common test procedure for the collection of sprinkler test data such as pressure, flow rate, and radius of throw, which may be used for the purpose of publishing performance specifications for sprinklers whose areas of coverage have uniform radii.

1.1.2 To provide methods for the interpretation of test data for sprinkler performance specifications, as derived from paragraph 1.1.1.

1.1.3 To provide a method to readily distinguish which performance specifications have been developed using this procedure.

1.2 The sprinkler performance specifications presented are to be of such extent and accuracy as to assist irrigation system designers when comparing the basic performance of various types and makes of sprinklers.

1.3 This Standard describes the types and methods of obtaining and recording pertinent test data. There must be a sufficient amount of data recorded and retained to support published performance specifications so apparent conflicts can be resolved.

## **2 Scope**

2.1 This procedure is used only to determine the radius of throw. No attempt is made here to define product use, design or application procedures, nor to determine uniformity of distribution, or the uniformity of the radius of throw throughout the area of coverage.

2.2 Single sprinkler tests only are covered in this Standard.

## **3 Sprinkler Selection and Description**

3.1 **Number of sprinklers.** To establish typical test data, it is recommended that a sufficient quantity of sprinklers of the same model number and nozzle size be tested under ostensibly the same operating and climatic conditions. Each test shall be recorded separately, but shall be combined with others for the development of performance specifications.

3.2 **Selection of sprinklers.** Sprinklers used for securing data shall be chosen at random from normal production runs.