## Want to Learn More About Estimating Turfgrass Water Use with an Evaporation Plan? Here's a Petrovic Suggestion

Interested in learning more about estimating turfgrass water use by using an evaporation pan?

That was the subject discussed by A. Martin Petrovic, associate professor of turfgrass science, at the MGCSA Mini-Seminar held March 21 at The Lafayette Club in Minnetonka Beach.

Following up in a letter to MGCSA Treasurer Jim Nicol, a member of the association's Conference and Education Committee, Petrovic enclosed a copy of a production version of a pan evaporation station from a WeatherMeasure/WEATHERTRONICS catalog.

"These are expensive," he wrote, "but superintendents can build and calibrate their own."

As noted in the catalog sheet, "The 6820 Series evaporation stations are complete systems used to measure the amount of water lost each day through evaporation."

**"There are two commonly used procedures** for making these measurements. In both, a pan 10 inches deep and 47.5 inches in diameter is used to hold the water. This U.S. Class A pan is normally installed on a wooden platform set on the ground in a grassy location.

"One alternative for measuring the daily evaporation loss is to use a graduated hook gauge set on a stillwell to determine the water level in the pan. The hook gauge is adjusted until the point just breaks the water surface, and a reading is taken from the attached scale. The second alternative uses a stillwell with a fixed point. Each time a measurement is taken, the pan is refilled to the level of the point using a calibrated graduate. The graduate has a surface areas of 1/100 that of the pan, so



that the amount of water added is the equivalent evaporation. The choice between these alternatives is generally made on a practical basis, such as the availability of daily replacement water.

"The amount of evaporation is a function of temperature, humidity, wind and other ambient conditions. In order to relate the evaporation to current or expected conditions, the maximum and minimum temperatures of the water and the amount of air passage are normally recorded along with the evaporation. The 6820 Series evaporation stations include a submersible minimum/maximum thermometer and a totalizing anemometer to provide these measurements. A floating minimum/maximum thermometer is available as an alternative; however, use of the submersible thermometer is recommended.

"Accessory instruments for measuring precipitation, humidity, air temperature and other required parameters are described in other sections of this catalog."

(Ed. Note: If you're interested in obtaining the catalog referred to in this article, write to WeatherMeasure WEATHERtronics for the company's 1987-88 catalog, P.O. Box 47039, Sacramento, Calif. 95841 or call 916/923-0055.)

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