



The 10-Percent Rule

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Product applications are an important component of most golf course maintenance programs. Plant protectants and fertilizers are expensive, so the effectiveness of each treatment must be maximized by ensuring uniform application. Accurate, precise and uniform product applications depend on a properly calibrated, well-maintained sprayer.

Some of the most important components that influence sprayer uniformity are the nozzles. Clogged or worn nozzles cause uneven spray patterns, leading to ineffective treatments and potential turf injury. It is important to remember that all nozzles wear under normal use and require periodic replacement. The easiest way to assess the condition of a used nozzle is to compare its flow rate to that of a new, matching nozzle. Researchers and manufacturers agree that the flow rate of a used nozzle should not differ from the flow rate of new, matching nozzle by more than 10 percent.

A stopwatch and graduated cylinder are the only tools needed to compare flow rates between spray nozzles. With a few simple calculations, the flow rate in gallons per minute (GPM) can be determined for each individual nozzle. Reduced output likely indicates the presence of debris, which typically can be corrected by



Measuring nozzle output helps ensure uniform product distribution. Nozzles that are significantly worn need to be replaced.

cleaning the nozzle screen and tip with a soft toothbrush. Excessive output indicates a worn-out nozzle that must be replaced.

Make every dollar in your budget count, while also protecting the turf and the environment, by making sure your sprayer is properly calibrated each and every time it leaves the maintenance facility.

For more helpful tips on sprayer calibration read, [Fine Tuning a Sprayer with the “Ounce” Calibration Method.](#)

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