

When Should You Use a Low Precipitation Nozzle vs. a Standard Precipitation High-Efficiency Nozzle?



There is no denying the recent growth in popularity of low precipitation nozzles. That growth has been fueled by the industry's desire to be more water efficient. Low precipitation nozzles are a great option for many landscape applications and can support efficient system design.

Low precipitation nozzles have succeeded at reducing water use. In fact, low precipitation nozzles may reduce water usage by two to three times when retrofitted on a spray head that uses a traditional spray nozzle and no station runtime adjustments are made.

In this case, if the plant material continues to thrive after the low precipitation nozzle is installed, then the

watering time was too long before and more water was applied than necessary.

Consider all factors before choosing

Precipitation rate is only one part of the efficiency equation. Other factors such as the distribution uniformity of the nozzle, operation at the optimal pressure, droplet size, matched precipitation design, adjustment for evapotranspiration, and proper scheduling contribute to the efficiency of a system.

If you are choosing a low precipitation nozzle for your site without considering these factors, then you may end up with a system that is more expensive to install, more difficult to manage and—in some instances—less efficient.

Use this chart to understand the trade-offs between a low precipitation nozzle and a standard precipitation, high-efficiency nozzle.

Low Precipitation Nozzles R-VAN Variable Arc Rotary Nozzle R Series Rotary Nozzles		Standard Precipitation High-Efficiency Nozzles HE-VAN High Efficiency Spray Nozzles U-Series Spray Nozzles
Pros	Low precipitation rate reduces runoff or pooling on slopes and hard clay soils	Lowest cost alternative
	High distribution uniformity	High distribution uniformity
	Lower flow can maximize number of heads on a zone	Shorter zone run times
Cons	Slow application rate can extend run times making scheduling difficult with tight watering windows	Fewer nozzles per zone when limited by flow rate
	Modest cost can be higher than a traditional nozzle	Infiltration rate may be too slow to prevent runoff on slopes or hard clay soils