

Size of droplet can be very important in determining nozzle that is best for your application.

The droplet sizes of nozzles are rated by the manufactures when they are designed.

Here we see the chart expresses the droplet sizes as being between two Volume Mean Diameter (VMD). For example the Fine rating is for nozzles that put out a droplet that is 100 to 175 VMD.

The size is measured in Droplets. Mean rating indicates that half of the nozzles are larger than that size and half are smaller. Therefore the nozzles that have a 100-micron droplet rating put out droplets that measure 50% smaller and 50% larger than 100 microns.

This standard of expressing droplet size is a system of classification for comparing relative droplet sizes produced by nozzles that are manufactured by different companies.

It was developed by the *Pest Control and Fertilization Application Committee* and the *American Society of Agricultural and Biological Engineers*. It was approved by the *Power and Machinery Division Standards Committee*.

Other application factors for efficiency of spray are caused by discharge trajectory, air bubble inclusion, height and velocity, impaction, droplet evaporation and such are not measured or addressed by this calibration.

Up to 20 Microns is a fog. The point of a sewing needle is 25 microns for comparison.

20 to 100 Microns is considered a Fine Mist. For comparison a human hair is 100 Microns.

100 - 250 Microns is referred to as a fine drizzle. As an example sewing thread is 150 microns.

250 to 1000 Microns is labeled as a Light Rain. A staple is 420 Microns.

1000-4000 microns is comparable to a Thunderstorm Rain. As a referent a # 2 Pencil Lead is 2000 Microns.

A Micron is a Micrometer. It is 1000th of a millimeter.

Normally Atomizing air tips create the smallest size droplets and the largest spray droplets are created by wide angle spray tips.