# Drip Irrigation for Established Trees

I get lots of questions on how long to water with drip irrigation. Here are some guidelines that may be helpful. For ease of understanding I have used the equivalent of 1 inch of rain as the target goal. You may want to use between 1 and 2 inches as your actual target for 2 x month during dry hot periods (May-Sept).

Square footage to be watered (root zone) x .62 gallons = 1 inch of water

Small tree may have a root zone of 10’ x 10’ = 100 square feet (sf)

Medium tree root zone 20’ x 20’ = 400 sf

Large tree root zone 30’ x 30’ = 900 sf

For a 10 x 10 small tree = 100sf x .62 = 62 gallons

For a 20 x 20 medium tree = 400 sf x .62 = 248 gallons

For a 30 x 30 large tree = 900 sf x .62 = 558 gallons

The gallons per hour (gph) of you drip hose emitters can vary but is usually 1 gph.

The distance between emitters can vary. It could be 12” or maybe 18”.

A 50’ drip hose with 12” spacing will have 50 emitters. If they put out 1 gph that = 50 gallons.

That will be about right for a small tree and you can put the equivalent of .8 inch of rain on that root zone in 1 hour or 1.6 inch in 2 hours.

A 100’ drip hose is about right for a medium tree 20’ x 20’ root zone.

100’ with 12” spacing = 100 emitters @ 1 gph = 100 gallons. If we need 248 gallons or 1 inch put out then we water for about 2.5 hrs. For 2 inches of water it would be about 5 hrs.

150’ with 12” spacing = 150 emitters = 150 gallons. About 3.6 hours for 1 inch. Overnight for 2.

So depending on how big the root zone you want to water and how much water you want to put out you may need to water for as little as 1 hour or it may be overnight for large root zones.

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