

NEWS RELEASE
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IRRIGATING FRUIT TREES

BACKYARD HORTICULTURE

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A very common question lately has been, “How much should I water my fruit trees?” The answer is not quite as simple as one would think. But, a few facts can help you make the right decisions.

First, we know how much water trees use on a daily basis. This is based on tree size, temperature and wind, among other factors. Your soil type and depth really do not affect how much water is used. It does, however, effect how often you will need to irrigate.

A mature fruit tree uses about 50 gallons of water per day in the summer. A four-year-old tree uses 15 gallons, 3-year old – 6 gallons, 2-year old – 2 gallons and a one-year old tree uses 0.6 gallons of water per day. This may sound like a large amount of water, but the soil actually holds more than you might think. An acre of land, depending on soil type and depth, holds from 27,000 gallons to over 150,000 gallons of water.

An interesting side note relates to the recent rains we have had. From May 20-21 we received 1.38 inches at the fairgrounds weather station. That rainfall, over a one-acre area, comes to over 37,000 gallons of water. Of course, probably not all of this water soaked in, but that is still a considerable amount for the plants to use.

Your soil type and how deep it is determines how frequently irrigation is required. Sandy soil will need more frequent watering than loam or clay, but the total amount applied each month will be the same, regardless of soil type. Deep, but infrequent irrigation should be your goal. This means to water thoroughly so that the entire rooting area becomes moistened. If your soil is three feet deep, the roots will grow to that depth, and you should try to water until it reaches that depth. The easiest method to check is to first irrigate normally. Then dig a hole down into the

soil to see how far the water has gone. If it is still dry at two feet (in a 3-foot deep soil), your next irrigation should be for a longer period of time. It is important not to apply the water at too fast a rate. Because the soil can only absorb the moisture at a fairly slow rate, long, slow water application is best.

With this information, you see why drip-irrigation systems work well. You can apply water slowly for long periods of time without run off. If you are using a sprinkler method, irrigate until run-off occurs. Then check the depth of water penetration. If not sufficient, then run the sprinklers again until the water reaches the bottom of the rooting area.

Using the tree water use figures mentioned before, you should now be able to calculate how often to irrigate. Remember that shallow soils hold less water than deeper ones, so more frequent irrigation will be necessary. However, even with relatively shallow, sandy soils, your goal is to apply water so the entire rooting area becomes moist. Re-irrigate only when the soil starts to dry down around the roots. The surface will dry more quickly, but should not be kept wet. This will only encourage root and trunk rotting diseases. In fact, the trunk area of trees should be kept dry at all times. If water stands next to the trunk, whether from rain or irrigations, it is much more likely to develop diseases.

If you would like a more complete description of proper fruit tree irrigation, visit the University of California website at:

<http://homeorchard.ucdavis.edu/general-irrigation.shtml>

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