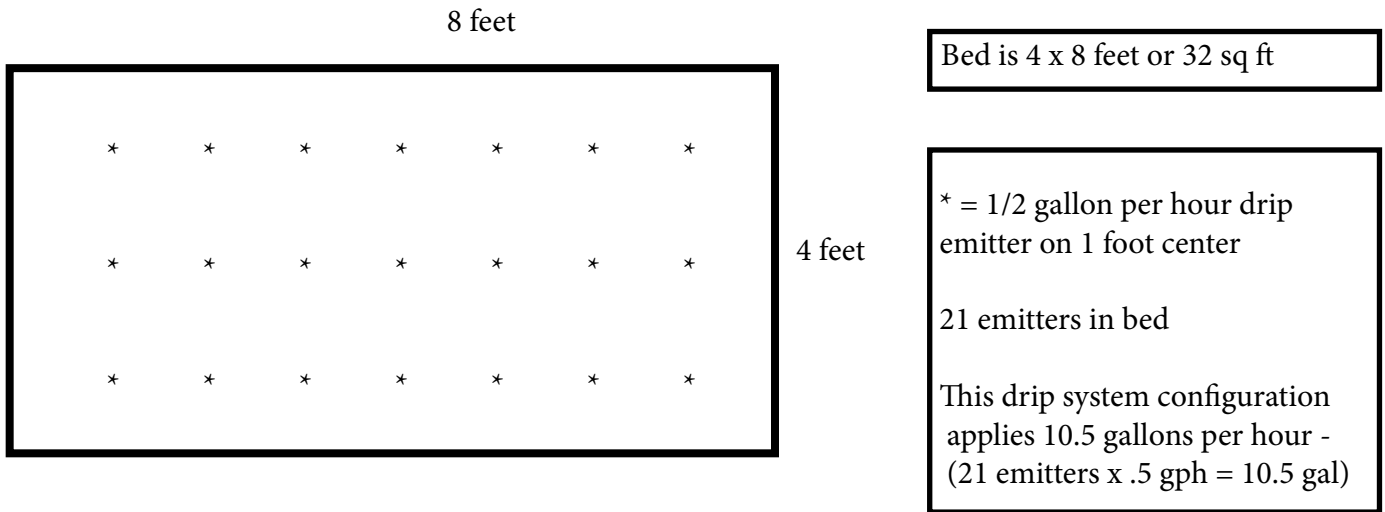




How Much Water Does My Food Garden Need?



For vegetables in the summer, we recommend applying about 1 inch of water over the surface area of the garden bed per week. That is equivalent to 0.623 gallons per sq ft. Using that rate, a 32 sq ft bed requires 20 gallons of water per week. (32 sq ft x 0.623 gallons per sq ft = 20 gallons per week).

During shorter and cooler spring or fall days, we recommend using about half that amount. These are averages; plant water demand varies depending on season and the evapotranspiration (ET) rate.

In the summer when plants are full size, we recommend watering every day. 20 gallons per week is 2.9 gallons per day - (20 gallons/7 days per week = 2.9 gallons per day per 32 sq ft bed)

With twenty-one 1/2-gallon/hour emitters in the bed, 10.5 gallons are applied per hour.

In this example, you need 2.9 gallons per day. So this bed needs 17 minutes of water a day. (2.9 gal /10.5 gal per hour = 0.28 of an hour) (0.28 x 60 minutes = 17 minutes to apply 2.9 gallons)

If you have 25 gallons a day available, how many square feet can you water per week? 280 sq ft (25 gallons x 7 days = 175 gallons per week - 175 gal/week divided by 0.623 gal/sq ft = 280 sq ft.)

If you have 25 gallons a day available, how many 4 x 8 beds can you water per week? 8.75 beds (175 gal per week/20 gal per week per bed = 8.75 beds)

For more information about food gardening in a drought, see the following documents prepared by the Sonoma County Master Gardener Food Gardening Specialists:

- Food Gardening with Less Water, <http://ucanr.edu/sites/scmg/files/183770.pdf>
- A More In-Depth Look at Food Gardening with Less Water, [web address to be assigned]
- Drought-Resistant Crops and Varieties, <http://ucanr.edu/sites/scmg/files/183771.pdf>

This document was prepared by Sonoma County Master Gardeners Electra de Peyster, Stephanie Wrightson, Cie Cary and reviewed by Paul Vossen, UCCE Sonoma/Marin Farm Advisor. (March 2014)