

Watering and Fertilizing Your Vegetable Garden

Watering

Water is crucial for plants. Vegetable plants and fruits are 75% to 95% water. Plant growth, yields, and eating quality increase when moisture is consistently available in the root zone.

- Water is most needed after planting seeds and transplants, and when edible plant parts develop.
- Water deeply around the base of your vegetable plants, as necessary, to keep their root systems moist. Use a watering can or a hose with a nozzle that allows water to flow gently. Frequent, shallow watering is good for newly planted seeds, not mature plants.
- Overhead watering may encourage plant diseases but can also help cool plants and provide moisture for beneficial insects and spiders during hot, dry weather.
- Water in the morning when possible. Disease problems are more likely to start overnight on cool, wet leaf surfaces. Leaves and stems should be dry before sundown.



- Soaker hoses and drip irrigation reduce water use and deliver water slowly and directly to the root system. They are relatively expensive but valuable because they automate watering and make gardens more productive.
- Adding organic matter helps the soil hold more water, making plants less vulnerable to drought. Mulches will help conserve soil moisture.

Fertilizing

Organic matter in your soil slowly releases nutrients during the growing season that plant roots pick up. But vegetable gardens usually need extra nutrients every year.

Giving plants the right amount of nutrients at the right time is key to growing a successful garden.



- Fertilize as necessary based on your soil test recommendations, fertilizer label instructions, and the needs of your different crops.
- Select “complete” fertilizers that contain nitrogen (N), phosphorous (P), and potassium (K). Use nitrogen-only fertilizers if a soil test report indicates high levels of phosphorus and potassium.
- Nutrient needs vary between plant families and species. For example, leafy greens require more nitrogen than beans and peas.

- Vegetable crops generally need nutrients most when getting established and during flowering and fruiting.
- Fertilize spring seedlings and transplants with a soluble fertilizer mixed with water.
- Mix dry fertilizers into the top 2-4 inches of soil. Water-in fertilizers after application if rainfall is not expected.
- Fertilize the actual planting area where roots will be growing, not walkways.
- Side-dress established plants (apply fertilizer next to the plants) when needed. Pull mulch away before side-dressing and replace it afterward.
- Slow growth, stunting, pale leaves, and low yields may indicate a need to fertilize. However, other factors, such as crowding, low sunlight, and compacted soil, can also cause these symptoms.
- Both chemical and organic fertilizers can be overapplied and burn plants or stimulate leaf growth at the expense of fruit.

Learn more:

Web pages- go.umd.edu/FoodGardening

Get answers to your gardening questions- go.umd.edu/AskExtension



Nitrogen burn on corn

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