

## Fertilizing Your Vegetable Garden

By Kate O'Lenic

You've decided what you want to grow. You know when to put your plants and seeds in the ground. Now what? Well, now it's time to think about fertilizing those plants throughout the growing season.

As we often recommend, a soil test is the best way to know if your soil is ready to grow plants or if it needs some help. If you haven't had a soil test done, there are some general suggestions to help you get the most out of your vegetable garden. First, keep in mind two important principals:

- Too much nitrogen can result in all leaves and no fruit or vegetables.
- Too much phosphorous can reduce the plant's ability to absorb iron and other micronutrients resulting in chlorosis, yellowing of the leaves because of inadequate chlorophyll production.

In general, use nitrogen wisely and use minimal amounts of phosphorous unless a soil test shows a phosphorous deficiency. A nitrogen only fertilizer, such as ammonium nitrate, is recommended for use during the growing season to avoid excess phosphorous.

There are several methods for applying dry fertilizer.

- **Broadcasting:** sprinkling fertilizer over the area where the roots are growing
- **Banding:** placing fertilizer in a narrow band next to where the seeds or seedlings will be planted
- **Side-dressing:** putting fertilizer around individual plants or next to them after they are established
- **Foliar:** spraying a mixture of liquid fertilizer and water onto the leaves

Be careful to keep dry fertilizer away from stems and leaves to prevent burns on the plants. Side-dress fertilizer 6 to 8 inches away. If broadcasting fertilizer, water overhead after the application to wash fertilizer off the plants. Carefully mix dry fertilizers into the top 2 to 4 inches of soil where the roots are growing. Avoid disturbing the roots of your plants. Water after applying it if no rain is predicted.

One quick comment about conventional granular fertilizer versus organic fertilizers: Plants absorb nutrients from either one. The only distinction to be aware of is that organic fertilizers require microorganisms to break them down before plants can access the nutrients. This may delay nutrient absorption compared to conventional granular fertilizers.

Now about specific plant needs, consider hungry plants that need extra nutrients and not so hungry plants that do better with less fertilizer. Here are some examples.

### **Heavy feeders**

Brussels sprouts, cauliflower: side-dress 3 to 4 weeks after transplanting

Broccoli: side-dress 3 to 4 weeks after transplanting and again after the central head is harvested. This will encourage small heads to form on side shoots

Okra: side-dress 3 to 4 weeks after fruits begin to form or after first harvest

Onions: side-dress once when bulbs enlarge

Garlic: side-dress twice- mid-April and mid-May.

Leek: side-dress in May or June

Sweet corn: side-dress when plants are 1 foot to 1-1/2 feet tall and again when plants start tasseling

Tomato, tomatillo, pepper, eggplant, potato: side-dress when fruits or tubers are about 1 inch in diameter. Tomatoes may need a second side-dressing.

Other heavy feeders: Beet, Swiss chard, spinach

### **Medium-Heavy feeders**

Asparagus, rhubarb, horseradish

Romaine and crisp-head lettuce: may require side-dressing

### **Medium feeders:**

Cabbage, kale, turnip, collards: side-dress 3 to 4 weeks after transplanting

Cucumber, squash, melon, pumpkins: side-dress when vines are 1 foot long or fruits begin to form

### **Light-Medium Feeders:**

Beans, Southern peas, and green peas, carrot, leek

Radish: avoid too much nitrogen

Making sure your plants have the right nutrition will produce great crops for you to enjoy. Happy growing!

### **Resources**

“Fertilizing the Vegetable Garden,” <https://extension.colostate.edu/docs/pubs/garden/07611.pdf>

“Fertilizing Vegetables,” <https://extension.umd.edu/resource/fertilizing-vegetables>

“Recommendations for Liming and Fertilizing Vegetables,”

<https://hgic.clemson.edu/factsheet/fertilizing-vegetables/>

“The Tennessee Vegetable Garden – Managing Plant Nutrition,”

<https://extension.tennessee.edu/publications/Documents/W346-C.pdf>

“Care of the Vegetable Garden,” <https://extension.tennessee.edu/publications/Documents/SP291-D.pdf>

### **How do I ask a question?**

If you have a question for the Master Gardeners, submit them to us on our website at [www.netmga.net](http://www.netmga.net). Click the link at the top of the page, “ASK A MASTER GARDENER” to send in your question. Questions that are not answered in this column will receive a response from a Master Gardener to the contact information you provide.