

Natter's Notes

Fertilizing Garden Plants

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As we discussed last month, the cue to start fertilizing seedlings of seasonal flowers and vegetables is by using a commercial trick: Apply a liquid fertilizer at half, or quarter, strength as soon as the cotyledons (seedling leaves) change position from vertical to horizontal. An early fertilization such as this will give your seasonal flowers and vegetables a running start toward the abundant harvests you expect. (*Fertilizing Seasonal Vegetables and Flowers*; Metro MG Newsletter; February 2019:

<http://blogs.oregonstate.edu/mgmetro/?cat=1179565>)

A brief overview

Fertilizer deficiencies in landscape plants are uncommon in our region's clay-based soils. Typically, potassium (K), phosphorus (P), and magnesium (Mg) are present in sufficient quantities for most plants. Even so, it's worth knowing that nitrogen is the element most often in short supply because it is water-soluble.

Nitrogen deficiency is characterized by pale and/or stunted growth; oldest leaves that turn yellow and may also dry and shrivel; along with dark green tip growth. (That's true only if the plants received appropriate amounts of light and water for their kind.)

Growing in containers may complicate things. The soilless planting mixes used in containers, combined with a severely restricted root space, offer plenty of opportunities for plant problems. Here's where a commercial potting mix premixed with a bit of fertilizer will come in handy for at least the first season to maintain woodies.

Eventually, though, container gardeners must periodically add fertilizer elements needed for growth, more often than in a ground bed. Even so, nitrogen will be the most common nutrient deficiency. The frequent watering required to maintain container-grown plants readily washes out nitrogen because of its high solubility.

Then, too, long-lived container plants become rootbound after a number of years in the same container. Roots have filled all the cracks and crevices in the potting mix such that nothing gets through, not roots nor water, or even fertilizer. Roots aren't able to function. Sometimes it's too late to re-pot.

Samples of effective fertilizer programs

Seasonal flowers or vegetables in pots: Mix a slow-release fertilizer into the potting mix, then sidedress about 4 weeks later. If needed during the season, use a dissolve-in-water product to perk up the annuals. Don't bother adding a high phosphorus fertilizer in the hopes it will encourage flowering. Seasonal plants must absorb the required phosphorus very early in their brief lifetime.

Seasonal flowers or vegetables in the garden: Rake a starter dose of granular fertilizer into the conditioned soil. Immediately after setting the transplants, settle the soil around their roots with a diluted fertilizer solution. Sidedress about 4 weeks later. (Again, high phosphorus isn't needed for bloom.)

Herbaceous perennials in the garden: Proceed as for seasonal flowers the first year. If needed, sidedress in each successive year. (With

ornamental grasses, consider skipping the starter fertilizer because the plants may grow too soft and flop; also consider minimizing, or skipping, any sidedressings.) With experience, you'll learn how to "read" your plants.

Lawns: Choose from fertilizing programs for high-, moderate-, or low-input lawns. Complete details for planting and maintaining lawns are in "Practical lawn care for western Oregon" <https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/ec1521.pdf>.

Shrubs and trees in the landscape:

Contrary to popular opinion, established landscape shrubs and trees seldom need fertilizer, especially if they are supplied with an organic mulch such as bark dust or wood chips out to the dripline. Bark chips, 3 to 4 inches deep, are recommended for trees or use bark dust, but to only 2 inches deep. That sort of program is similar to following nature's lead: Maintain an organic mulch around the base, both to slowly fertilize the trees and shrubs as the mulch degrades in place, also to conserve soil moisture and to minimize fluctuations of soil temperatures. (Yes, you'll still have to weed now and then.) The main undesirable effect of fertilizing long-lived landscape trees and shrubs is that doing so increases the frequency for pruning.

If you think that you absolutely must fertilize woodies, apply granular nitrogen after the new leaves have fully expanded. Then, they're able to

put fertilizer to good use while they photosynthesize. (Broadcast it underneath the canopy, out to the dripline.) Fertilizing at other times of year may produce new growth but the tree must use its own reserves, not the fertilizer, to do so.

This, by the way, brings an important caution to mind: Never fertilize a stressed tree because it needs all its reserves to survive the stress.

Blueberries would be notable exceptions to the take-it-easy guidelines for landscape woodies, simply because you want them to fruit well. See *Growing Blueberries in Your Own Garden* - <https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/ec1304.pdf>.

Roses are another exception to laid-back fertilizing because, this time, the desired yield is abundant flowers for outdoor display and probably also as indoor cut flowers. Obtain a "rose fertilizer" from a large garden center or use one of the formulations available from the Portland Rose Society, then apply according to directions.

(<http://www.portlandrosesociety.org/fertilizer.html>) Don't bother with homemade concoctions.

Resources

- *Soils and Fertilizers* (chapter 2 in *Sustainable Gardening*, the MG handbook)

- *Fertilizing Shade and Ornamental Trees*

<https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/fs103.pdf>