

It's all about the soil! Healthy soil amended with rich compost and manures, along with proper pH adjustments will go a very long way to decrease or in some cases, even eliminate the need for fertilizers. As a matter of fact, fertilizing before understanding soil health can have harmful effects.

A soil pH of 6.5 is optimal for most landscape and garden plants. There are exceptions to this, noted in individual sections below.

The timing of fertilization is an important piece of the puzzle. In most cases, plants appreciate being fed in early spring, before the growth spurt begins.

In general, fertilization of in ground plants with a slow release product after mid-July isn't recommended. After midsummer, plants need time to completely harden off before fall and winter. By the time they respond to the slow release food by pushing out new growth, they should have been hardening off for cold weather.

There are exceptions to this rule, discussed within individual sections below. By the end of October, plants can again have some food, as once the plant has entered the dormant phase, it will go right to the roots.

Container plants need the right potting mix; however fertilization becomes a different issue. Watering containers will leach out nutrients within the finite amount of soil, so regular feeding is important.

Fertilizing new plantings:

Biotone starter fertilizer is recommended for all new plantings. It's organic and does a fantastic job of getting roots to establish quickly.

## **Perennials**

Perennial plants include a vast list of flowering and non-flowering plants, and they don't all require the same conditions. We can point out general guidelines, but information for specific plants should be researched.

There is an old adage about fertilizing perennial flowers, and it is, "Feed 'em and weep". There is truth in this statement when considering the established garden. It's true that

perennials can grow too quickly, become leggy and fall over when heavily fertilized. There are exceptions to this rule too.

Certainly, when deciding to use fertilizer, it should be out of necessity, and only a slow-release granular product should be used in early spring. We recommend Espoma's Plant-Tone.

Again, soil is of utmost importance. Topdressing with 1-2" of good quality compost in early spring will most likely negate the need for fertilization during the season. Too much feeding will also grow more foliage than flowers. Top and side-dressing is recommended if your property is in a very sandy or clay area. And of course, no amount of plant food will help a plant that's in the wrong place! If a plant naturally grows in dry sunny conditions, moist conditions will do it in.

**Perennials that require no fertilizer:** Included are ornamental grasses, false indigo, ground covers, butterfly weed, bee balm, coneflowers, black-eyed Susans, sea holly, dianthus, asters and veronica.

**Perennials that should be fertilized in early spring and again during the summer:** Use a quick release food in summer, instead of a slow release food. Included are garden phlox, daylilies, lupines, peonies, mums, delphiniums and astilbe.

## Annuals

A vast amount of annual flowers are planted up in containers such as baskets, window boxes, patio pots and even bags. Any annual that isn't in the ground will have more needs than ones that have free range in the soil. In the case of annual flowers, we recommend a quick release liquid fertilizer such as a blossom booster or petunia food. Containers should be fed every 1-2 weeks while watering.

For annuals planted in the ground, you'll still want to make sure the soil is appropriate for planting. pH of between 6.3 and 6.7 will go a very long way to make for fuller, healthier, annual plants. Fertilize at planting time with an organic or slow-release fertilizer. Using a fertilizer specifically meant to increase blooms can be used during the season, but again, if your soil is healthy you may not need to. A general plant food as

opposed to a blossom booster will get you more leaves than flowers. The plants will let you know by decreasing their blooms.

Remember to never feed during the heat of the day, and never onto dry soil. Water the plants first.

There are a few annuals that do not like to be fed and even dislike nice soil. Morning glories and moon flowers are famous for preferring less rich conditions and flower more with no fertilizer.

If you shear back any of your annuals at midsummer to promote a new bloom cycle, feed the plants after cutting.

## **Deciduous Shrubs and Trees**

Most feeding of this group pertains to the first 1-3 years of growth. After that, many of these plants are well-established with healthy roots that can easily find their own nutrients. Flowering Shrubs and Trees may require more phosphorus than non-flowering plants. Phosphorus aids in blooming more vigorously.

Soil, soil, soil. When planting or transplanting shrubs and trees, it's important to use a rich planting mix. Adding a slow release food such as Biotone Starter fertilizer is recommended.

While the plant is in its first few seasons, a slow release granular can be applied in early spring as soon as new growth begins. You shouldn't need to do more than that. Check whether your plant likes more acid conditions to determine whether to use Plant-Tone or Holly-Tone. Light top-dressing with compost will help immensely too.

Do not fertilize after midsummer. Plants need to begin slowing down in preparation for dormancy. After dormancy, in late fall, fertilization is fine. The food will be taken up by roots and not the foliage.

Be careful not to over-fertilize, as you can weaken the entire plant this way. Plants pushed to over produce won't form strong roots and branches.

If the plant begins to look poorly, don't jump to use fertilizer. Fertilizing an unhealthy plant can be very harmful. It's best to get a diagnosis of the problem before doing anything.

## **Hydrangeas, Azaleas and Rhododendrons**

### **Hydrangeas**

A once a year feeding with a slow release organic granular food is recommended. Use a slow release granular formulated for flowering shrubs in spring or early summer. Top-dressing in early spring with composted manure is a tried and true method. Rich organic matter when planting hydrangeas is a must in either sandy or clay soil. Over fertilizing will get you more leaves than flowers.

Not all hydrangeas turn blue or pink, but if you have a variety whose color can be changed, changing the pH is the answer. To get bluer hydrangeas, add sulfur to bring the pH to between 4 and 5. Use lime to obtain a pH between 6 and 7 for pink flowers.

Bear in mind that if your soil is sandy, fertilizer will leach out more quickly, so checking your pH and adding compost should happen yearly. Amendments in clay soil move much more slowly, so a bi-yearly approach can be adopted.

### **Rhododendrons and azaleas**

Rhododendrons and azaleas are actually low maintenance in terms of fertilization. If the soil is attended to at the time of planting, you may not have to feed it again. If yellowing of leaves occurs, bring some in for a nurseryman to look at, you may indeed have some nutrient deficiency in the soil or the pH is too high. Rhododendrons and azaleas love an acid soil between 4.5 and 6.0. If the pH is off, feeding is less effective until the pH is corrected.

### **Houseplants**

Indoor plants should be given a break from feeding during the fall and winter months when they aren't getting as much natural light. To push them with feeding when they are not actively in a growing phase is to weaken the plant. Feeding monthly between March

and September is optimal. An all purpose plant food is sufficient. Be aware that the plant should be watered before fertilizing, otherwise you may hurt the roots.

If you use grow lights throughout the winter, you can treat fall and winter as “growing season” too.

Repotting houseplants is best done in the spring when the plant is ramping up growth. Only going up one pot size at a time is recommended. After repotting is a good time to feed your plant.

## **Tropical Plants**

In our area we treat tropical plants as annuals during the summer months and some are treated as houseplants during fall and winter. A monthly dose of a liquid food is adequate. Discontinue feeding in fall and winter.

## **Orchids**

Orchids are in their own category. Feeding lightly every week is a good rule of thumb. We recommend Better-Gro Orchid Plus. Never use a liquid food that contains urea on orchids.

## **Evergreens & Conifers**

This is one group of landscape plants that will most likely be perfectly happy without any fertilization after it's planted and established. Given that the soil is good and the plant is nicely watered in, you have done your job! In fact, fertilizer can be bad for evergreens and even kill them if given too much. Evergreens are very good at letting you know that they need some attention. If your evergreen doesn't look right, bring a piece in for a nursery professional to look at before you decide to try any home remedies in the form of fertilizer.

Under certain circumstances, fertilization may be recommended. If the site they're transplanted to has exceedingly clay or sandy soil, after any disease or pest problem or transplantation problems arise. Bear in mind that newly transplanted evergreens can take a little time to get up to normal growth rate. Holly-Tone is recommended at planting time and in early spring if the soil is less than ideal, at least for the first few seasons.

Special Note: Although arborvitae and boxwoods are indeed evergreens, they don't enjoy the acidic soil of all other evergreens. Use Plant-Tone for these evergreen shrubs. Fertilizing once in early spring should be enough to make these plants happy.

Winter burn. Wait to see how the new growth appears in early summer. Water well and feed with slow release granular.

## **Lawns**

Grass plants in our lawns are just about the most vulnerable to maintenance issues. Fertilization, pest control and weed control add up to quite a bit of time and labor on the homeowner's part. Soil ill health is the #1 reason for a sub par lawn and all the fertilizer in the world won't fix it. Get a pH test done. pH should be right around 6.5 for lawn grass. If that passes muster, you'll encounter fewer issues.

Fertilizing your lawn in the spring is recommended. Your grass will green up fast and look nice and healthy with a feeding.

Fertilizing during the hot summer months is a matter of preference. If you irrigate your lawn and want a nice lush look, then yes, fertilizing is called for. You'll be mowing a bit more, but your reward will be a beautiful yard. There are plenty of organic lawn foods that will give that grass a boost.

If you really don't want to bother maintaining that grass out there, let your lawn do a natural slow down in hot weather. Don't fertilize and it will be just fine.

Don't fertilize if you aren't going to water your lawn in the summer. Fertilizing a brown, dry lawn won't do any good at all. Begin a watering program first and then fertilize.

Fertilizing in late October or November is highly recommended. The reason for fall fertilization is to give those shallow roots some real strength to get through the winter.

Corn gluten application in early spring and in the fall over several seasons will eliminate weeds and feed the lawn organically.

## **Roses**

Trimming and fertilizing are very important to growing roses. A weakened rose is more susceptible to pests, so you'll want to take good care of this plant!

We've said it before and we'll say it again, when it comes to growing roses there are almost as many methods for having beautiful roses as there are rose growers!

We'll give you the basic guidelines, but if you're really crazy for roses you'll want to talk to other rose growers for tips and opinions.

Using Espoma's slow release granular rose food, Rose-tone, feed your roses feed in the spring when the days are warm and night time temperatures have reached the upper 40's. This usually happens mid to late spring, but as we all know the weather can be very fickle! Adding compost to the soil in spring is suggested as well.

Fertilize roses once a month with Rose-Tone or fish emulsion. Avoid using chemical fertilizers, particularly on Rugosa roses. They're easily burned.

## **Vegetables**

When planning a vegetable garden, make researching fertilizer needs part of your plan.

There isn't one rule to live by when deciding when or if to feed vegetable plants.

Different plants have different requirements. In general, lots of rich compost when

planting will go a long way to give vegetable plants good nutrients. Use organic

fertilizers. Neptune's Harvest is an awesome edibles fertilizer. Used every 2 weeks, this

should completely take care of feeding your plants. Espoma also makes great organic

vegetable fertilizers balanced specifically for the crop you're growing.

Crops such as bush beans, peas and turnips don't need to be fertilized at all apart from a bit of starter fertilizer when planting.

Root crops such as, carrots, potatoes, beets and sweet potatoes will benefit from some feeding with a liquid food meant for edibles. Beware of too much manure based fertilizer with these plants.

Other vegetables, especially those building big products (tomatoes, watermelon, broccoli, etc.), are happy to have fertilizer mixed in when being planted. Until the weather is very hot, don't worry much about more feeding. Then regular feeding with a liquid food for vegetables is suggested.

## **Herbs**

There are two reasons to fertilize herbs. One is that they are often grown in containers. Container plants always need feeding since watering takes away nutrients from a finite soil source.

The second reason is that herbs are constantly picked throughout the season. To give the plant support in producing more foliage than it normally would, plant food is recommended.

What to use? Neptune's Harvest seaweed/fish emulsion is a great natural food for edible plants. A watering with fish emulsion every other week will insure that your herbs keep pushing out growth. Try to keep the fertilizer off the leaves and on the soil when watering.

## **Fruit trees**

Fruit trees should be fertilized in spring after the buds open. Newly planted trees benefit from fertilization at the time of planting and a few times during the growing season. Don't fertilize fruit trees after the beginning of July. After the first year or two of growth, fruit trees won't need any help from you!

A fruit tree that isn't getting enough nutrients will let you know. Fewer leaves, fewer fruits and smaller fruit while not showing any true signs of disease will be the tip off that fertilizing would be a good idea. After that, some soil amending would be in order with rich organic compost.

Use a fertilizer balanced especially for fruit trees. It takes a lot of the right nutrients to produce that delicious fruit!

## **Berry bushes**

### **Blueberries**

Good soil is important for all plants and pH is part of the healthy soil equation, but this is especially important when growing blueberries. Your plant will not produce those delicious treats unless your pH is between 4.5 and 5.5 (or very acidic).

It's a great idea to get your soil amended and ready the year before planting blueberries. If your soil now tests at 7 or higher, you'll have to add sulfur to lower the pH enough for blueberries. Lots of good organic compost should be worked deep into the soil too.

Fertilize when planting and again a month later. In subsequent years, fertilize in early spring before any foliage is showing. Once a year feeding is all they require.

### **Raspberries and blackberries**

Raspberries and blackberries won't need much attention. Fertilize when planting with a slow release granular food and again each spring before the plant flowers. Liquid feed until 2 weeks before berries begin to ripen.

Shallow root systems leave raspberries a bit vulnerable, so leaving the food on the soil surface and watering in or letting the rain do it is a better option. Scratching it in as you might with many other plants could damage roots.

The pH required is a bit higher than the pH for blueberries, so look for a test result of between 5.5 and 6.5.