

Understanding Fertilizers

Q.... I need to buy fertilizer for my garden. I went to the nursery and found the many choices so confusing and overwhelming. How do I determine what is the best one for my flowers, fruit trees and vegetables?

A. Fertilizers are food for your plants. And just like you, the better they eat, the better their health is likely to be. The shelves are filled with different products to feed you plants. Let me try to explain the differences between them to make it easier to decide what is best for your garden.

COMPLETE VERSUS INCOMPLETE FERTILIZERS:

Complete fertilizers contain three major nutrients: N (nitrogen), P (Phosphorus) and K (Potassium), and in order, feed the plant's shoots, roots, and fruits. You will see three numbers on the label (e.g., 10-8-6) which represent the N-P-K percentages.

Incomplete fertilizers are missing one or more of these three nutrients. This label might read 20-0-0. Some plants do not want one or more of the elements. Other times you may want only one for the specific benefit it provides like N for the quick greening of your lawn.

GENERAL-PURPOSE FERTILIZERS VERSUS SPECIAL-PURPOSE FERTILIZERS:

A general purpose, also known as all-purpose, fertilizer is intended to meet the needs of most plants. It will have equal N-P-K numbers or a bit more N than P and K.

Special purpose fertilizers will be formulated for the needs of specific groups of plants, like citrus, roses, or acid loving plants. The N-P-K percentages will promote the best growth for their needs.

ORGANIC VERSUS SYNTHETIC FERTILIZERS

Organic fertilizers are formulated from living organisms, and may include ingredients like blood meal, bone meal, and fish emulsion. Many other ingredients may be included. These products work more slowly and last longer in the soil. They are broken down by bacteria in the soil providing nutrients and they decompose.

Synthetic fertilizers are also known as chemical fertilizers. They work faster in the soil and are less expensive than organic products.

SLOW-RELEASE FERTILIZER

These products are formulated to release over an extended period of time. This allows for fewer applications each year.

The best fertilizer is the one that you are actually going to use. It is most important that you follow the directions on the product that you select.

Much of this information was taken from:

San Joaquin UC Master Gardeners "Feeding Plants-Understanding Fertilizers"
<http://sjmastergardeners.ucdavis.edu/files/154369.pdf>

For more fertilizer information please check out the following links:

Lawns: <https://ccuh.ucdavis.edu/sites/g/files/dgvnsk1376/files/inline-files/lawn%20fertilizing%20english.pdf>

Vegetables: http://sfp.ucdavis.edu/pubs/Family_Farm_Series/Veg/Fertilizing/

Fruit trees: <http://homeorchard.ucdavis.edu/calendar.pdf>

Citrus: <http://ipm.ucanr.edu/PMG/GARDEN/FRUIT/CULTURAL/citfertilization.html>