Fertilizers

All plants need nutrients not only to live but to thrive and produce flowers, fruits and vegetables. The primary nutrients are nitrogen, phosphorus and potassium. When you purchase fertilizers and see numbers such as 8-20-15 or hear us refer to a product as 'triple 16' the sequence is always nitrogen, phosphorus and potassium. You may also see these elements indicated by their chemical symbols N, P or K. Other elements are also used by plants but the 'big three' are the most important and the most necessary for healthy, productive plants.

All three of these elements are available in both organic and inorganic forms. By organic we mean naturally occurring, such as high in phosphorus bone meal. Inorganic refers to man made products typically a chemical compound that may be made from naturally occurring elements such as petroleum but have under gone processing to render the element accessible. Gardeners can choose to use organic or inorganic products; there is no evidence that one performs better than the other. The main consideration is exposure to chemical compounds, something many of us are trying to reduce or cease altogether. Nitrogen, phosphorus and potassium each help plants in different ways. Plants also use up these elements or they can leach out through the soil so regular applications are needed for good plant growth and health.

Nitrogen helps plants produce leaves and keep plants growing vigorously. Thick, green grasses in a lawn or garden lettuce are examples of leafy plants that benefit from generous helpings of nitrogen. Nitrogen also promotes stem growth and can help shrubs and trees to grow strong and full. It is possible to give plants too much nitrogen and for some vegetables too much can mean lots of leaves and no veggies. Good organic sources of nitrogen include compost, aged manure, blood meal and fish meal. Nitrogen is very soluble, leaching out quickly so it should be applied during the growing season for the most benefit. Many inorganic sources of nitrogen are available in pelleted, granular or liquid form.

Phosphorus gives plants healthy roots and promotes flowers which turn into good fruit or vegetable production. Phosphorus is not very soluble so when we apply bone meal as we plant bulbs in fall, we can count on the phosphorus remaining long enough to help the bulbs along in spring. Good organic sources of phosphorus include bone meal and rock phosphate. These are so widely available and easy to use that we rarely recommend any inorganic sources when a phosphorus deficiency is noted.

Potassium is the little thought of last element, but it is essential for overall plant health and robust growth. Green sand and kelp meal are good organic sources of potassium. It is not unusual for inorganic products to contain enough amounts of potassium without additional applications of potassium alone.

Trace elements such as calcium, magnesium, iron, boron, copper or zinc can also be very important for plants. Some plants can be quite particular about trace element deficiencies. Too little iron can cause leaves to yellow and inhibit photosynthesis, a real problem for a plant you want to look good or eat the leaves of.

When plants need nitrogen, phosphorus or potassium the symptoms can be obvious. Most trace deficiencies can be harder for the average gardener to spot. We recommend regular testing of garden soil to pick up problems before you see symptoms in your plants.

Other factors such as soil pH can affect how plants uptake nutrients. Good overall soil health is critical for gardening success. Duluth Sod & Landscaping also recommends regular testing of soil pH, something that can also be accomplished with simple test kits.

Whether you commit to using only organic products or some combination of both organic and inorganic nutrients Duluth Sod & Landscaping can help you figure out what your soil needs for the best results. A productive vegetable garden, a beautiful flower border, a lush, green lawn or healthy, sturdy trees and shrubs can all be yours if you feed your plants a good diet of fertilizers.