

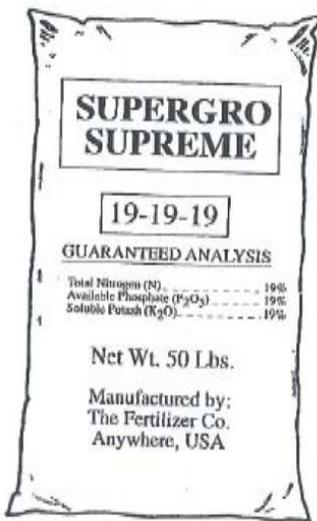


Inside Ag

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N – P – K

What do these Letters Mean?



As the weather warms and Spring Fever hits, everyone starts to think about doing yard work. What flowers will I plant? How can I get rid of that bald spot in my lawn? Which fertilizer should I use? Let's talk about fertilizer.

Fertilizers are compounds given to plants to promote growth. Fertilizers are applied to the soil for uptake by plant roots or by foliar feeding for uptake through the plant leaves. Fertilizers can be organic (composed of organic matter) or inorganic (made of simple, inorganic chemicals or minerals). They can be derived from naturally occurring compounds, such as peat or mineral deposits, or manufactured through a chemical process.

There are a variety of fertilizers available. Which formulation should you choose? Should you get the bag of 18-9-9 or 5-10-5?

And, what do these numbers mean?

When selecting a fertilizer the first question is "What analysis do I need?" The analysis is the three large numbers listed on the fertilizer product label, such as 10-20-10, 10-10-10 or 18-46-0. These numbers represent the percentage, by weight, of the three major nutrients required for healthy plant growth. The analysis must always be listed in the same order of nitrogen-phosphorus-potassium (N-P-K). The analysis listing and format is required by law.

The first number represents the percentage of nitrogen (N) in the product. A bag of 24-8-4 contains 24 percent total nitrogen. Nitrogen provides plants with the ability to produce more chlorophyll, which allows plants to grow quickly. With each additional nitrogen application, plants will grow taller and develop a darker green color. So if you want a dark green lawn, use a fertilizer that's high in nitrogen. But expect to mow more often!

The second number in the analysis represents the percentage of phosphorus. A bag of 24-8-4 contains 8 percent phosphorus. Phosphorus aids in root development and increases flowering ability and bloom size. High-phosphorous fertilizer should be used when plants are being established in your garden or when sowing a new lawn or planting trees and shrubs.



The third number represents the percentage of potassium. A bag of 24-8-4 contains 4 percent potassium. Potassium guards the plant against diseases and aids in drought protection and cold tolerance. It also serves a role in improving root development and helps in the process of photosynthesis.

Each nutrient effects plant growth differently. The formulation you should select depends upon your specific gardening needs. As a warning, if fertilizer is applied too heavily, burning of the plant tissue or plant death may result. Read product labels carefully and follow directions to avoid problems.

The Colorado Department of Agriculture's Fertilizer Program registers and inspects fertilizers for agricultural and home use. For more information on fertilizers, or the Colorado Dept. of Agriculture's Fertilizer Program, please call 303-477-0086, or visit the [Fertilizer Program](#) on the Department's website.