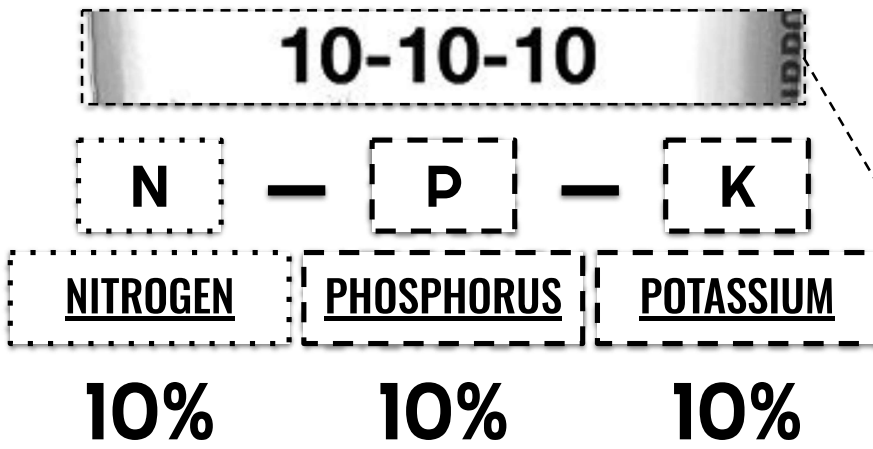
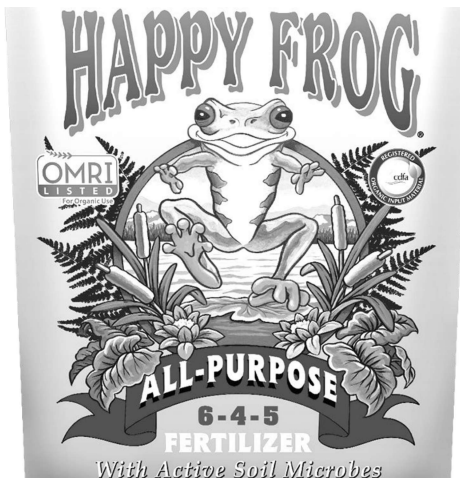


The Basics of Fertilizers



Avoid applying fertilizer for the first year in the ground

- All fertilizers show 3 numbers, which is the percentage of macronutrients (what they need most) by weight or volume of the product:
 - Nitrogen - Phosphorus - Potassium
- Some may also list any of the many micronutrients plants need, but generally need less of:
 - Carbon, Magnesium, Sulfur, Calcium, Zinc, Iron, Boron, Copper, Molybdenum, Manganese, Nickel, & Chlorine.



Remember This

TOP	<u>NITROGEN</u> Fuels new shoots, leaves, & green growth
DOWN	<u>PHOSPHORUS</u> Boosts root, flower, & fruit development
ALL AROUND	<u>POTASSIUM</u> Improves fruit quality, stress, & immune system

Know what you are applying & how it affects your plant life.

- Synthetic fertilizers feed the plants, being absorbed directly through the roots.
 - Often quite cost effective, but also imparts salts into the soil, requiring flushing &/or mitigation by way of Gypsum (Calcium Sulfate anhydrous).
 - Far more prone to causing “fertilizer burn” when applied in excess, making measuring applications very important.
- Organic fertilizers take advantage of & establish the ancient method of soil fertility (you feed the soil, the soil feeds the plants).
 - Leveraging humic acids, beneficial bacteria, mycorrhizal fungus, & even worms can help to establish the needed platform for the ancient method of soil fertility.
 - This is where active soil microbes & soilborne fauna become useful, as they feed & interconnect plant life, & even aide in the absorption of nutrients in the soil, which may otherwise be “locked” from absorption due to the soil pH, salts, etc.
 - Mycorrhizae fungal networks can also allow chemical communications between connected plant life, warning each other of pests, requesting & sending nutrition, & distributing some excess moisture.
 - Inoculants & compost/mulch in the soil can help to encourage microbial activity.
- Gypsum (Calcium Sulfate anhydrous) is not a fertilizer, but can help to improve soil drainage & mitigate salts in heavy clay soils.
 - By improving soil drainage in clay soils, Gypsum often encourages deeper rooted plant life.
 - Activated by clay & water, it may require reapplication one to two times a year.
 - May also impart some Calcium & Sulfur into the soil.

