

JOHN'S CORNER

Organic Fertilizers and Nutrients – 3 Pre-blended Organic Fertilizers

By John Ferguson

This week I want to look at pre-blended organic fertilizers. The reason the better organic fertilizers blend ingredients together is to balance the nutrients going into to the soil. Historically, conventional agricultural science tells us that a plant only needs 16 elements to live and grow. However, numerous research reports show that plants will absorb whatever is in the soil. A couple examples are:

Alpine pennycress, a small perennial herb, has been found to be a hyper- accumulator of cadmium and zinc, holding 30,000 ppm of zinc in its leaves without loss of growth compared to 500 ppm for most plants. The plant can be harvested, dried and then burned for electrical power generation with the resulting ash being recycled (smelted) and marketed commercially. USDA-ARS, Environmental Chemistry Laboratory, Beltsville, Maryland, Dr. Rufus Chaney.

A team of researchers at the University of Guelph in Ontario has discovered that lemon-scented geraniums are capable of absorbing and accumulating large amounts of heavy metals from soil. Laboratory tests found the plants were able to absorb 3,200 mg cadmium, 18,700 mg of lead, 6,400 mg of nickel, and 650 mg of copper in 1 kilogram of dry plant tissue in only two weeks. The plants could also tolerate nearly 29,000 ppm of hydrocarbon contaminants, which were present in test soils. American Nurseryman, March 15, 1998.

As you can see plants have the ability to absorb all types of elements even ones hazardous to human health. The human body has over 90 elements in it and to be healthy we need to get these nutrients from our food. Hundreds of our common health problems are caused by nutrient deficient food found in conventionally grown agricultural products. A very good lecture on the subject that is funny and easy to listen to is:

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"Dead Doctors Don't Lie", By Joel Wallach, DVM, N.D, - Excellent lecture available on CD, on nutrition, trace minerals and health and the link between soil and health. It is available at many health food stores or online.Note: This lecture was recorded a number of years ago but over 90% of the information provided by Doctor Wallach has been confirmed by other researchers.

So what does this have to do with organic fertilizers? For example if one applies an iron oxide product, all one gets is iron. If one applies gypsum all one gets is calcium and sulfur. Artificial fertilizers focus on N-P-K (nitrogen, phosphorous, and potassium) and maybe a few minor nutrients hence they are very incomplete. When food is grown with these artificial fertilizers then the food is also nutritionally incomplete.

A basic organic fertilizer will have the major nutrients and a few others and no toxic chemicals. A good organic fertilizer has the major nutrients, minor nutrients and trace elements in it. A extremely good organic fertilizer will have the above and also have beneficial microbes for plant health and species of microbes that serve as bio-fertilizers.

As a business owner and soil scientist I have had the opportunity to use and test many brands of organic fertilizers. My favorite is a local brand called Microlife (6-2-4) made by San Jacinto Environmental Supplies. I use it on everything; house plants, turf grass, hanging baskets and pots as well a fruit trees and vegetables. The reason why is that it is a complete organic fertilizer. It has the following ingredients:

Alfalfa, Fish meal, Kelp meal, Soy meal, Wheat middling's, Rock phosphate, Bat guano, Potassium sulfate, Iron sulfate, Sulfate of Potash magnesia, Humates, Molasses, Corn meal, Cottonseed meal, Beneficial microbes (dozens of strains including Endo and Ecto mycorrhizal fungi, and Bio-fertilizers (8 strains)).

We will look at each of these ingredients and what they provide in future articles. I have asked Mike Serant owner of San Jacinto Environmental Supplies to write an article on the history of Microlife and how it came to be. We will share it with you in future newsletters.

SUMMARY:

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Organic fertilizers, compost, mulch, soils, etc. are just like automobiles where there is a huge range of quality, value and price. One can buy a Yugo very cheaply as compared to a Lexus or Mercedes. They are all cars but a huge difference in quality, safety and value.

QUESTION: For a coupon for a free bag of "Leaf Mold compost" to the first five respondents:

"Which nutrient or element does a plant require the most of?"

Hint - It is not water (H_2O) .