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Organic FERTILIZER PRIMER

a Quick Reference

My gratitude to you on your commitment to nurture living soil! By choosing organic fertilizers, you feed your microbe armies, and then they cycle those nutrients. You are putting the parts of the program together, hurrah!

The Basics: I highly recommend that you get a soil test to determine what your particular soil actually needs. If you do nothing else, give everything in your yard or garden a foundation of either liquid fish (Fish Emulsion or Fish Hydrolysate) or fish bone meal. This Primer is a rough guess if you don't have a test lab recommendation. The fertilizers I suggest will at least come close to supplying necessary NPK, plus secondary macro and micro elements.

Please, please do not overdo on application rates. Too much is as harmful as too little.

Fish Bone Meal: It comes in a 10 lb container, or 50lb bag, or by the ton

This is a granular fertilizer that is excellent to use for flowers, vegetables, fruits, shrubs and trees. The fish bone meal product sold by Alaska Sea-Ag averages 6% nitrogen and 10% phosphate plus 25% calcium. Apply at the rate of 2.5 to 5 lbs per 100 sq ft.

Before you plant your annual beds, cultivate the fish bone meal into the soil to a depth of 6". For berries and perennial flowers, scatter the fish bone meal over root and drip zones, then scratch in lightly and water well. Be assured that dog and cat interest will drop to nothing after the first day or two. Store in a container that is safe from mice, squirrels, bears, and dogs.

Liquid Fish

Liquid fish provides high nitrogen and trace minerals. The liquid comes in two different ways: fish emulsion or fish hydrolysate.

Fish emulsion is the familiar white plastic jug of stinky liquid. It is processed with heat and

preserved with chlorine (not beneficial to soil microbes).

Fish hydrolysate is cold-pressed, enzymatically digested. It is preserved with an acid such as vinegar. This form is more beneficial to your soil food web.

To apply, please consult jug label for dilution and application rates and follow them exactly. Don't over-do. You can put liquid fish into your watering can or into a sprayer. Apply to foliage and root zone. This is a high-nitrogen boost especially for heavy-nitrogen feeder vegetables: your greens, lettuces, and cabbage family. Apply 1 to 4 times per season. Store inside a container that is safe from mice, squirrels, dogs, and cats!

Kelp Powder, soluble

If packaged in a Ziploc bag, Immediately transfer your kelp powder into a water-tight, wide-mouth jar and keep it dry so the powder does not turn to gum with the least humidity or wetness. Tape a label on it.

Kelp provides potassium, many trace elements, and growth stimulants. It reduces transplant shock and hurries seed sprouting.

Kelp powder dissolves very well in water. Follow the dilution and application rates on the package. Apply with your watering can or sprayer to foliage and/or root zone. Apply 2-4 times per season or as often as once a week. Again, a soil test would help you know what your soil and crops actually need.

Microbial Inoculant

Rather than a fertilizer, you're adding vital and highly beneficial members of a healthy soil food web, namely bacteria, fungi, protozoans, and nematodes. Examples: compost tea, *Soil ReVive, Jubilate, Eden*, etc. The purpose is to help deliver plant nutrients, out-compete disease microbes, stimulate vigor and earlier maturity, and increase yield. Contents of these inoculants may include endo-mycorrhizal fungi, plant proteins, animal proteins, vitamins, minerals, amino acids, trace elements, specialized, pre-selected, adapted soil microbes, bio-organic catalysts and microbial growth stimulants.

Combine Fertilizers with Compost Tea?

Yes, yes, yes, these are the foods to feed your beneficial microbes and maintain their high numbers. Can you mix the kelp or fish powder right into the same watering can (or garbage can) as the compost tea? Yes BUT—

Yes, it's great to apply them at the same time. You save time, so it's very efficient.

BUT do not combine them and then leave them sitting for more than a few minutes. Within an hour, the compost tea will go anaerobic (because of heavy dose of food) and will kill your plants. Augh!