



BLOSSOM Organic Garden Store



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Organic Growing Supplies for the Maritime Northwest

Gardening Information Leaflet No. 1

\$5.00

“DOING IT RIGHT” THE MINERAL-AUGMENTED ORGANIC WAY *The Only Way to Grow!*

SUPERIOR SOIL BUILDING

Plants do not live by organic matter alone. Wondrous stuff that decaying organic matter (or humus) is, it does not meet the nutritional needs of most plants. This is especially true for plants grown to feed people and animals and highly cultivated or bred plants and hybrids. Likewise, it is generally more true of introduced or regionally non-adapted plants used for landscaping purposes than for native flora. **Building superior soil for quality plant growth involves more than tilling-in abundant organic matter.**

Just as organic matter, used alone, is not the whole answer to feeding plants, it is equally true that plants grown outdoors in a totally mineral soil, devoid of humus or fed only inorganic fertilizers, will grow poorly. Even if superficially they look good, such plants grown in the absence of either appreciable humus or nutrient minerals will have low pest and disease resistance and will lack reproductive vigor and lack seed viability. **The key to truly healthy and productive plants, as well as to fertile soil, lies in the proper combination of minerals and organic matter, when other growing factors are favorable.** In fact, getting the mineral and organic combination right will often result in better soil aeration, drainage or moisture retention and a crumb-like soil structure, i.e.; good tilth.

Knowledgeable organic growers concentrate on feeding the soil (or, more precisely, the soil's micro-organisms, earthworms and other biota) and letting the soil furnish nutrition to plants rather than trying to feed plants directly with soluble and synthetic fertilizers. It only makes sense that the combination of **both** organic matter and natural minerals is the best formula for supplying all needed soil and plant nutrients and biological stimulants. **The best soils are mineral-rich as well as humus-rich without being too much of either.**

The application of organic matter such as leaves, manure, and ordinary compost does add some nutrients, including minor amounts of minerals. However, the heaping-on and mere recycling of organic matter does not generally supply adequate amounts of the complete array of 18 or so nutrient elements in the balanced ratios that enable soil biota and cultivated plants to thrive. This proper combination and optimum growing mixture typically calls for the addition of some minerals over and above what can be supplied from organic matter alone or can be etched out of soil reserves as a result of incorporating organic matter. It is this proper combining of both minerals and organic materials which we at BLOSSOM Organics Garden Store call: **Mineral-Augmented Organics (MAO).**

Numerous agricultural and horticultural books depict the **ideal** soil as being composed of 45% minerals (most of which are non-nutrients), 25% water, 25% air space, and just 5% humus. Humus essentially is fully-decomposed organic matter plus resistant compounds manufactured in the humus making process by microbes. Sadly, many agricultural soils today contain less than 3% humus. Our “modern” chemicalized agriculture thus is hanging by a thread. However, in the best of our native prairie soils, humus seldom exceeded 10%. **Should we not take a cue from nature as to how much humus is adequate and what amount might be excessive for growing plants?**

In soil science, a natural soil with 25% or more organic matter, is considered muck. With special treatment and fertilization, muck soils can be made productive, but it is questionable whether the crops produced have decent nutritional

quality. While container plants need and benefit from potting mixes with a high ratio of organic to mineral content, for most gardening and landscaping purposes, there is such a thing as too much soil organic matter and, in fact, overdosing on organic matter is usually detrimental to plant growth and to the livestock or people who regularly consume such plants or crops.

Because of a historic fixation on NPK (nitrogen, phosphorus, and potassium or kalium) and a wide-spread (but still prevalent) misunderstanding of pH (acid/alkaline reaction) in relation to plant growth, the real significance of certain minerals (notably calcium and magnesium as well as trace minerals) in plant nutrition is vastly unappreciated. Curiously, this is so despite considerable scientific research which bears out the critical roles of these minerals and the necessity to supply them in fairly precise proportions at target levels which can be identified for different soil types by laboratory testing or analysis. BLOSSOM Consulting now offers such professional soil testing services. Results are obtained in about a week.

For home gardening purposes it is sufficient to point out that average compost (utilizing yard waste, garden residues, etc.) does not do the job and needs to be fortified with a variety of ground-up natural rock minerals where such fertilizing materials are not otherwise being applied directly to the soil. Despite what you may have read, compost activators and inoculants can be very helpful in making speedy compost. Compost fortifying minerals definitely add substantial nutrient value to ordinary compost.

Probably the very best plant fertilizer and soil amendment is mineral-augmented compost. Composting this MAO way enables rock dust minerals to be processed and intermixed by soil biota with organic materials and thus made maximally available for immediate plant use. Yet, such compost is perfectly safe to apply at any stage or season in the growth cycle. Ideally, the whole gamut of plant and animal materials (including fresh manure) and natural minerals should be run through your compost pile. Spread the finished, fortified compost sparingly as a topdressing and under mulches, or mix about an inch into the top 4 inches of garden beds to supply a slow, steady feeding of your plants at the rates plants need them.

To simplify adding the full complement of essential minerals, BLOSSOM Organic Garden Store has formulated an all-natural **Compost Fortifier Mix** expressly for conveniently supplying all the minerals and the accelerator nutrients needed in proper composting. Our companion **Gardening Information Leaflet (GIL#2) on COMPOST MAKING** discusses the easily memorized S.P.A.M. Sandwich method of making high quality, “hot” compost with minimal effort. It explains how to layer the various bulk materials and apply **Compost Fortifier Mix** to produce a quick, uniform and weed-free, superb compost for building superior soil, which is the key to growing the highest quality plants. See also GIL #3 on **COMPOST MAKING BY THE S.P.A.M. SANDWICH METHOD.**