<u>Paramagnetism - Recovering Nature's Secret Force of Growth</u>

by Philip S. Callahan, Ph.D. published by Acres U.S.A.,1995

Paramagnetism is a physical force. Not a hard-to-grasp spiritual essence, but a force that is identified and detailed in every physics handbook in the world.

Volcanoes are not disasters but blessings in disguise. They bring rich volcanic soils: deposits of minerals and ores. No volcanoes, no agriculture – for volcanic ash and rock are the guts of good soil. P. 12, ibid

Igneous minerals, like those found in granite, are commonly attacked by water that is acid or alkaline in pH. All mineral-formed rocks except the highly resistant quartz, are broken down and changed in this chemical manner to clay, colloid, silica, granite, and numberous minerals in solution. The common chemical products of weathered rock becom the building materials for the sedimentary particles upon which our soil is built. P.12

Besides such chemical weathering of igneous and metamorphic rock, there is mechanical weathering, which is the breakdown of rock into particles without causing change to the minerals in the rock. Heating and cooling by the sun along with water percolating into cracks and pores, separates or expands the rock with enough force to crack off small pieces and disintegrates the rock over time. Thus are the volcanic pressures of soil converted into dust and sedimentary particles carried by erosion, wind or water to the flat lands and hillsides where it is labeled *soil*. P. 13

A few years after Mt. Saint Helen's erupted articles began to appear detailing how fast the forests were returning, the plants popping up, the streams revitalized and even nearby farmers delighted with their crop output. [insert details from Weyerhaeuser tree growth]. Apparently modern man and agribusiness had forgotten that good soil comes from volcanic rock and not the chemical industry. Mount St. Helens demonstrated that God knows what He is doing and corporate America only believes it does. It is not that I believe corporate agriculture is evil, only misguided. Perhaps they can learn from God's volcanoes. P. 13

From Charles Walter's superb book, "Weeds, Control Without Poisons" highly revered by Phil Callahan – "Plants – weeds as well as crops – actually get about 80% of their nutrition from the air. Most of this nutrition is taken from carbon dioxide and water, but it also includes cosmic and solar energy and airborne nutrients. The effectiveness of this direction of nutrient flow is totally dependent upon two conditions: the inherent integrity of the plant and/or seed and the health of the soil. The health of the soil depends not only on soil nutrients and air nutrients but upon oxygen as does human life. Oxygen is as necessary to root growth deep in the soil as it is to the portion of the plant above ground which is submerged in atmosphere. Oxygen, like volcanic rock and dirt, is highly paramagnetic. In fact it is the most paramagnetic of all the gasses. If the magnetic force we call "paramagnetism" is important to the plant above ground, then it must be doubly so in the soil.

We may understand that there are three ways to generate this valuable magnetic force called paramagnetism into the soil:

- 1. By adding volcanic rock into the soil
- 2. By fiberization so that paramagnetic oxygen reaches the roots in soggy soil
- 3. By using weeds, which are green containers of paramagnetic minerals in our compost and manure.

It can be re-established on land that is badly eroded and thus depleted of this most necessary antenna for magnetic forces.

Both the Dictionary of Chemistry and Dictionary of Physics define paramagnetism as follows:

"In paramagnetism the atoms or molecules of the substance have a net orbital or spin magnetic moments that are capable of being aligned in the direction of the applied field. – Dictionary of Chemistry. In short, paramagnetism is a physical parameter of all material at the elementary level of atoms and molecules.

It is obvious that the earth and cosmos itself has a magnetic moment since it has a low energy field of about 1/2Guass. *Gauss* is the CGS unit of magnetic flux. Paramagnetism can be measured in the soil with a CGS meter. Put quite simply, if you have one gram of a substance, one centimeter from a magnet, in what part of one second will it move to the magnet? Any substance, including soil or rock that will move toward a magnet is paramagnetic. If you can measure the Centimeter, Grams, Seconds, CGS then you will know the measure of its attractive force to a magnet. CGS is known as *susceptibility* because it is obvious that if a substance moves to a magnet, then it is susceptible to a magnetic field. Other ways of saying it are that the substance is attracted to a magnetic field, or resonating to the field or grabbed hold of by the field, or even loves the field.

Now we know that paramagnetism is the alignment of a force field in one direction by a substance in a magnetic field, then we must ask what is diagmagnetism? Diamagnetism is a negative movement, or movement away from a magnetic field. Most organic molecules are diamagnetic and most volcanic rock and ash are paramagnetic. The words paramagnetism and diamagnetism imply very, very weak magnetic fields.

The simple fact is that the magnetic field of the cosmos and the earth alternates far more than the field of a fixed DC magnet. It is this alternating earth/cosmic field to which volcanic soil and volcanic rock resonate, or to which both are susceptible.

All volcanic soil and rock is highly paramagnetic, giving a CGS from 200 to 2000 CGS. The author has demonstrated that good healthy crops grow only on highly paramagnetic soil. All really good soil is volcanic. This force can be added to soil, where it has eroded away, by spreading ground-up paramagnetic rock such as basalt or granite into the soil.

With a CGS meter farmers can save their soil from the destruction advocated by present day chemical propaganda. The author estimates that 60 to 70% of this volcanic paramagnetic force has been eroded away worldwide. A meter to measure this force is absolutely necessary in order to save our chemically raped and eroded soil.

Soil should be alive with living organisms such as bacteria and earthworms, diamagnetic plant material such as compost, and the rich soil paramagnetic force. Mineralization of the soil by adding separate minerals does not mean that the paramagnetic force has been added. We know little of the effect of living forces in rock, but we do not install into the soil living paramagnetic forces in rock, by blind mineralization of the soil. Complex mixes do not necessarily contain a high CGS/paramagnetic factor. It is an absolute fact that all chemical fertilizers measured by this inventor (Philip Callahan), even those labeled organic, impart or contain the CGS force at such a low reading as to be totally useless in reinforcing the remaining natural volcanic force of the soil. P. 82

The paramagnetic forces of rock amplify not only ELF radio waves in the atmosphere generated by lightning, but also photon waves generated in the infrared and visible control region of life. Life processes are electronic, like the nervous system, but also very much photonic. Life's complex communication system's messages are carried by photons, as are AT&T's.