

PARAMAGNETISM

- THE MISSING LINK IN HIGH-PRODUCTION FERTILITY

American research scientist, Dr Philip Callahan, is arguably the only true genius working in Ag science today. In the past two decades he has been responsible for research findings with such earth-shattering significance that it is difficult to comprehend the enormous implications of his work. It is sufficient to say that in twenty years time, with the power of hindsight, Dr Callahan will inevitably be recognised as a major figure in the development of the soil saving and soul saving discipline termed Ecological Agriculture. Dr Callahan believes that his most important work to date relates to his discovery of the importance of a low-level energy, called paramagnetism, that is only found in good soils. Paramagnetism, nature's secret growth force, has the potential, in Callahan's opinion, to save worldwide agriculture.

Paramagnetism is the capacity of a soil to receive and store electromagnetic energy from the environment. This energy, which includes radio waves, has been shown to have a profound influence on plant growth. A highly paramagnetic soil acts like an antenna to constantly receive this energy which is emitted from sources within earth's atmosphere and from outer space. All of the world's most fertile soils are highly paramagnetic (ie they are very efficient antennae), and these soils are from volcanic origin, usually derived from basalt or granite. Dr Callahan has shown that it is possible to build the magnetic susceptibility and associated fertility of any soil with the addition of paramagnetic materials. For example, basalt-based crusher dust can be very highly paramagnetic, and it can be an extremely valuable fertility-building material. There are other sources of paramagnetism, but the ideal material should have low iron levels, as iron-based ferromagnetism can confuse readings.

Dr Callahan has developed a meter called a PCSM, which accurately measures the paramagnetism of soils and other materials. Queensland company, Nutri-Tech Solutions P/L, are importers and distributors of these high-tech fertility monitors. The value of any fertility program can be assessed with the use of these meters because, if a program is achieving what it should be, then the calcium / magnesium ratio will be improving and the aerobic zone (the top six inches) of that soil will be infused with increasing amounts of oxygen (Oxygen is the most highly paramagnetic of the gases). Graeme Sait from Nutri-Tech comments: "These machines can be real problem solvers. Recently we had a case involving North Queensland orchardists with very poor flowering and production. A conventional soil test has revealed many deficits, but even after correction of these problems poor production continued. A check with a PCSM revealed the lowest paramagnetism we had ever measured in a soil. Inexpensive paramagnetic inputs are the key to the correction of this problem."