Paramagnetic Effects on Plant Growth

Presence of Paramagnetic Rock Boosts Growth, Studies Show

Phil Callahan, author of Paramagnetism - Rediscovering Nature's Secret Force of Growth, has decades of experience documenting the subtle energies in nature, in particular, the effects of paramagmetic forces on plants.

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by Thomas M. Dykstra, Ph.D.

Much has happened in the past 10 years since Phil Callahan first made the association between plant vitality and the force found in nature called paramagnetism. Many experiments have been conducted, including industry research, in which a significant increase in plant growth and vitality is observed when paramagnetic rock is incorporated into the soil or spread across its surface. Some of the earlier trials have been reported in Phil Callahan's book entitled Paramagnetism - Rediscovering Nature's Secret Force of Growth, and in Acres U.S.A. articles, while others have gotten less attention from the media, including research done in Florida by students in consultation Dr. Callahan and myself - with remarkable results. This article, however, is not so much an effort to show the effects of the paramagnetic force on growing plants, but rather an attempt to focus on disputing the major criticism of this type of research.

Throughout these years, I have seen criticism come from those who purport that it is not the force that drives plant growth, but rather the mineral content of the rock dust that affords the plant the proper nutrients. No one can deny the importance that minerals play in plant nutrition, but neither should mainstream science deny that forces, subtle or otherwise, have an important bearing on plant vitality.

What both proponents and critics of paramagnetism can agree on is that rock dust has been shown to increase plant vitality. This common ground is not enough for peaceful relations because it is the mechanism by which plant vitality is enhanced that is still not clear, and may not be for decades to come. Some recent experiments, conducted under our laboratory's supervision, sought to shed some light on this dilemma.

In experiments conducted over the past year, we have attempted to isolate the paramagnetic force from the minerals through three different but related experiments. Since our laboratory

deals with subtle forces in the environment on life, we felt it important to describe these results in order to help support the hypothesis that growing plants not only need certain forms of energy, such as from the sun, but also certain forces, namely paramagnetic forces, that may be found naturally in some soil systems.

Before I begin with the description of the experiments, it is worth analyzing the claim that volcanic rock dust effects growing plants strictly via the minerals it imparts to the soil. There can be no doubt that minerals leach into the soil due to weathering from all types of rock. However, most people are aware that rock erosion is not a rapid phenomenon. Rocks take thousands and even millions of years to completely break down. For this reason, erosion over the course of a growing season would be incredibly small and maybe even difficult to measure in some parts of the country. For a given quantity of rock, there will be far more surface area for pulverized material than for a single rock. Since many studies, including some conducted in this laboratory, have been able to achieve success using paramagnetic rock to increase plant growth/vitality, and considering the limited possibility of erosion and leaching in such a short span of time, this would seem to suggest paramagnetic force as a major factor.

For the first of three experiments, we coordinated with Hannah Horvath, of Titusville, Florida, who completed a project where she investigated the effects of regular potting soil, potting soil plus a vial containing paramagnetic soil buried under the soil line, as well as potting soil with the addition of a common magnet (ferromagnetic) on the wildflower Zinnia elegans. Horvath obtained from the lab a plastic vial containing some paramagnetic ash which measured a vigorous 3,000 CGS [CGS: centimetergrams-seconds; the weight of paramagnetic material that will move one centimeter to a magnet in one second], despite there being only 11 grams of the material. Horvath completely submerged the plastic vial in the soil. The paramagnetic soil was directly adjacent to the potting soil by virtue of its being buried in it, but no direct contact occurred.

The zinnias in the regular soil achieved an average height of 4.8 inches; the plants in the soil with the ferromagnetic material reached a height of only 4 inches; while the soil containing the vial of paramagnetic rock dust (ash) had plants averaging 6.3 inches in height Although there was no data collected to support other measurements, it was observed that the stems were thicker, the leaves were broader, and there was a more extensive root growth in those plants that grew in the soil containing the vial with the paramagnetic ash. These observations are no different from reports that have come into this laboratory where the paramagnetic rock was either spread over the soil or incorporated into the soil. The results are shown in Figure 1.

Ross Whitty is a local student here in Gainesville, Florida. For two years he completed his science projects regarding the effects of paramagnetic soil on growing plants. Because he received heavy criticism of the usual type from the judges, he decided in his third year that he would try and isolate the paramagnetic force from the minerals in the paramagnetic soil by enclosing I the paramagnetic soil in film canisters, similar to what Horvath did for her experiment. Whitty went further, however, and created serial type dilutions by filling the film canisters with increasing amounts of paramagnetic dust so that he could obtain readings of 200, 400, 600, 800, 1,000, and 2,000 CGS.. Whitty then proceeded to test these various canisters for their effects on radish development.

The gradual increase in paramagnetic force between the different canisters, when submerged in the soil, resulted in a proportionate increase in the developing root length, plant mass, and root density of the radishes, shown in Figures 2, 3, and 4.

These results should be clearly understood. Recall that it is only the paramagnetic material within the film canister that measured between 200 and 2,000 CGS, not the actual soil the radish was planted in. Phil Callahan has found that healthy sail, measured in many places around the world, will register between 300 and 700 CGS.

He has found that simply adding rock measuring 5,000 around CGS will not increase the soil CGS to 5,000. What happens instead is that there will be a modest increase in the soil CGS reading due to the dilution factor.

Therefore, it cannot be determined what the final CGS reading would be at different positions in the soil for Whitty's experiments, only that the CGS levels have necessarily increased due to the presence of the very high-level paramagnetic substance in the film canisters. It is not known whether there is an upper limit for paramagnetic effects on growing plants, but if there is one, it seems Whitty did not reach that point because the results increased linearly and did not "level off," which is what would be expected if an optimal effect has been observed. Carefully controlled research in the future may help to reveal some important questions regarding this phenomenon.

Finally, Roger Haring, an agronomist working in our laboratory, decided to test the effects of the paramagnetic force on growing plants as well. Haring decided to isolate the paramagnetic force from the soil by surrounding a mere 3 grams of paramagnetic, rock dust with parafilm. With previous experience growing mung bean, Vigna radiata, he decided to continue his work with this Asian crop by testing its interaction with the paramagnetic force. Since previous results had already shown that paramagnetism has beneficial effects on plants through out their life cycle, he chose growing mung bean, Vigna radiata, he decided to continue his work with this Asian crop by testing its interaction with the paramagnetic force. Since previous results had already shown that paramagnetism has beneficial effects on plants through out their life cycle, he chose solely to focus in on germination rates. For this reason, Haring ran his experiments for only 10 days and then observed the effect paramagnetism had on the seedling as well as the early stem and leaves. Even though his results were modest, owing to the short periods in which he ran the experiments, he still recorded significant effects.

Haring germinated mung bean seeds on moist cotton media with or without an adjacent pouch of paramagnetic soil wrapped in parafilm. He repeated this experiment a total of 15 times. Haring found that he could obtain, on average, a 19 percent increase in stem length, a 15 percent increase in leaf length, a 17 percent increase in total plant biomass and a 3 percent increase in the dry weight of the early roots after only 10 days. His findings are represented in Figure 5. The dry-weight increase of the early roots, though small, surprised us because the roots had absolutely no soil in which to grow. For this reason, we might not expect any difference to occur at this stage of development.

We have found that it is often the case that paramagnetism exerts its effects on the roots -through the roots may be more appropriate terminology. This is a trend that had been noted before the round of experiments just reported, and the results from these three experiments help contribute to this hypothesis. Both Horvath and Whitty found a significant difference between root development in their most recent experiments; however, the information they reported was only observational (qualitative versus quantitative) which far from disqualifying these results only prevents their publication in scientific journals. Even Haring achieved a small but surprising increase in dry root weight of mung bean after only a 10day experiment with no soil.

The paramagnetic effect exerting its force selectively or more powerfully on the root system shouldn't be difficult to understand. The roots are in closer contact with the paramagnetic soil than the stem or leaves. Large, healthy roots would naturally lead to more vigorous growth of the plant above the soil as well, but it seems these benefits may only be a secondary effect. The primary effect appears to be on the roots, and it is strongly felt that long term controlled studies would reveal properties that would hold for all plants.

Once the paramagnetic rock has been discovered in a particular location, removal and distribution of the rock would be most efficiently accomplished by a mining company, since they have the infrastructure already in place. Additionally, many of the mines currently being excavated may already show great promise for paramagnetic, activity, especially those mines that are volcanic in origin (and there may be hundreds in this country alone).

Furthermore, land reclamation has become increasingly important to American-based mining companies due to present environmental laws which require these companies to reclaim land which is disrupted due to mining activities.

Since most of the high-level research on paramagnetism is currently being handled by mining companies in their research and development departments, continued involvement in this research can be anticipated, and we encourage others to do the same.

Recognizing the effects of paramagnetic forces on the growth of plants is the motivation behind Phil Callahan's book Paramagnetism -Rediscovering Nature's Secret Force of Growth. This book, and Harvey Lisle's exploration of the same in The Enlivened Rock Powders, are both available from Acres U.S.A. Call 1-800-355-5313 to order.

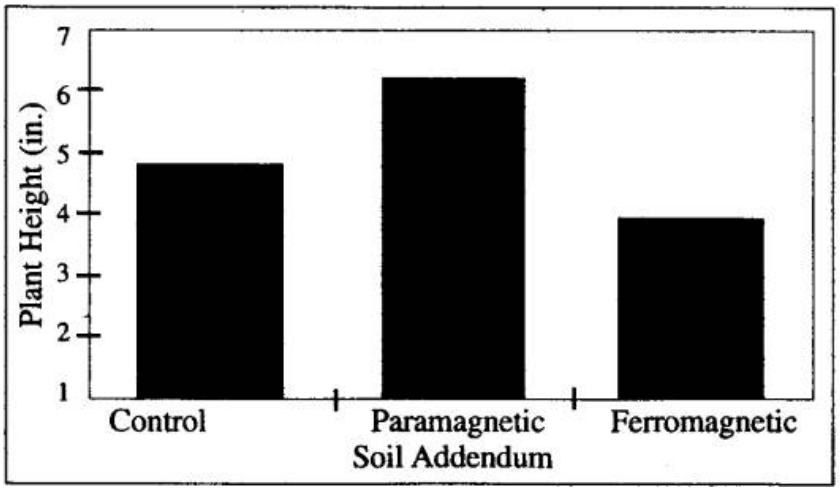
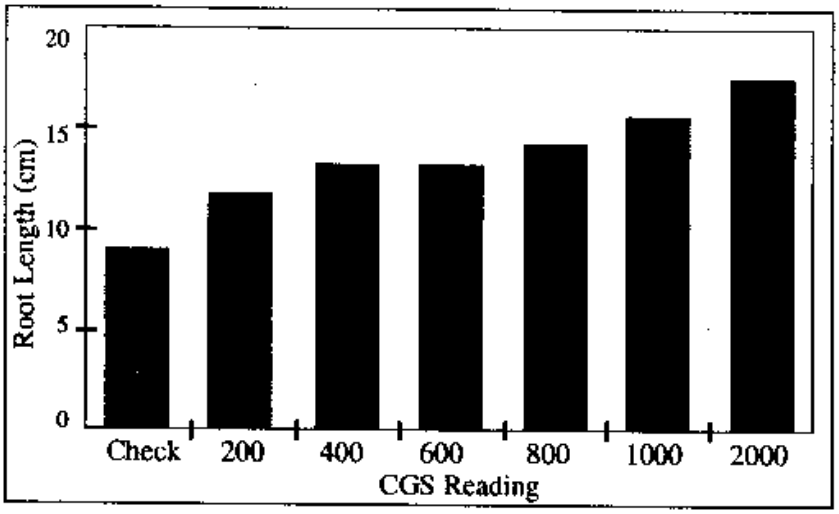


Figure 1. Effects of soil containing sealed paramagnetic material and a Ferro magnet on the growth of zinnias.



Figures 2 - 4. Various exposures of sealed paramagnetic matter to young radishes; effect on root length, plant mass, and root density

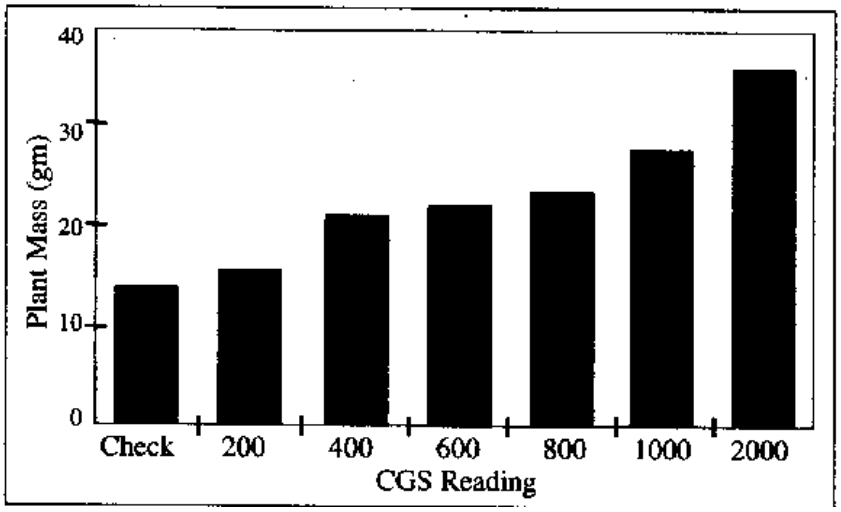


Figure 3

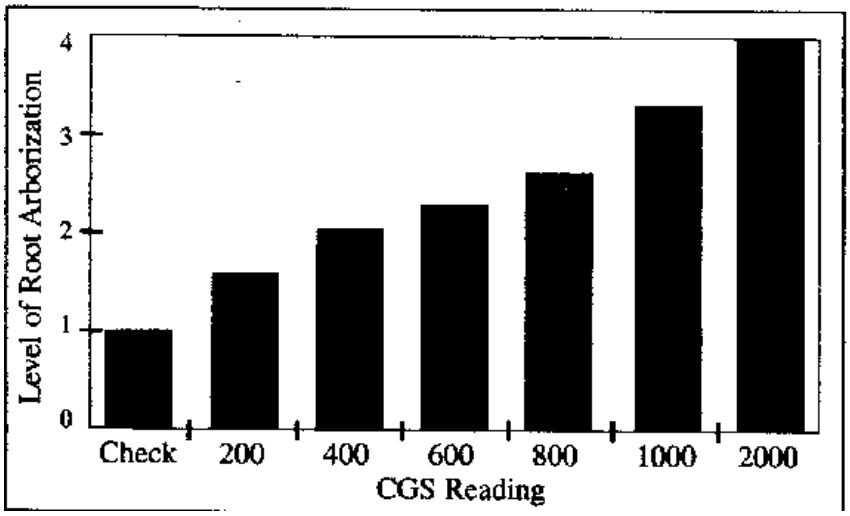


Figure 4

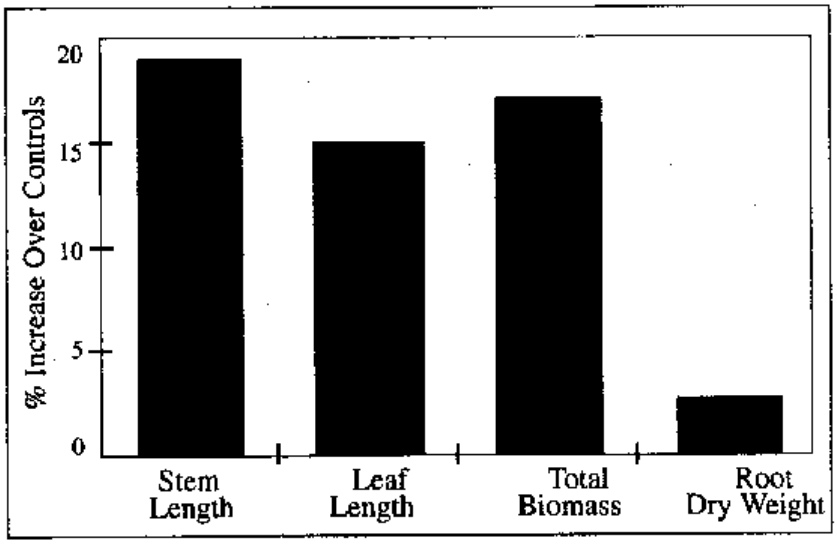


Figure 5. Results of in house study of mung bean sprouts exposed to paramagnetic material; percent increase over control plants.