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THE ROLE OF ORGONE ACCUMULATORS AND ELECTROMAGNETIC WAVES IN PLANT DEVELOPMENT

BİTKİ GELİŞİMİNDE ORGON AKÜMÜLATÖRÜ VE ELEKTROMANYETİK DALGALARININ ROLÜ

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ABSTRACT

The planet Earth has many qualities different from most other planets we know. Perhaps one of the most important of these is that it has magnetic poles. With the electromagnetic field formed between the magnetic poles, living things are in close contact. As a result, it can be thought that the electromagnetic fields affect the living things in some way. In this study, the effects of low frequency magnetic fields on the development of plants such as wheat, corn, chickpea and bean which have an important place in human nutrition are investigated. Furthermore, the orgone accumulator box made of styrofoam and made of organic materials such as metal and cotton and timber, which were stated to have positive effects on the growth of the organism, was manufactured and the plant growth was tested in a controlled manner. The Orgone accumulator assembly is included as a Faraday cage to shield the electromagnetic fields. As a result of the study, it was found that 7.8 and 83 Hertz analog frequencies had positive effects on plant growth and plants grown on Orgone accumulator showed better development than those in control boxes - including Faraday cage.

Keywords: Electromagnetic fields, Plant development, Orgone accumulator

ÖZET

Dünya gezegeni diğer bildiğimiz çoğu gezegenden farklı birçok niteliğe sahiptir. Bunlardan belki en önemlilerinden biri manyetik kutuplara sahip olmasıdır. Manyetik kutuplara arasında oluşan elektromanyetik alan ile canlılar sıkı bir bağlantı içindedir. Sonuç olarak elektromanyetik alanların bir şekilde canlılara etki ettiği düşünülebilir. Bu çalışmada ise daha ziyade tarımı yapılan ve insanların beslenmesinde önemli yere sahip buğday, mısır, nohut, fasulye gibi bitkilerin gelişimi üzerine düşük frekanslı manyetik alanların etkileri araştırılmıştır. Ayrıca canlı gelişimi üzerine olumlu etkileri olduğu ifade edilen metal ve pamuk ve kereste gibi organik materyallerden yapılan ve strafor ile kaplanan orgon akümülatörü kutusu imal edilerek, bu kutu içinde bitki gelişimi kontrollü olarak sınanmıştır. Orgon akümülatörü düzeneği bir nevi Faraday kafesi vazifesi görmesi ve elektromanyetik alanları perdelemesi bakımından bu çalışmaya dahil edilmiştir. Çalışma sonucunda 7.8 ve 83 Hertz analog frekansların bitki gelişimine olumlu etki ettiği, Orgon akümülatöründe yetiştirilen bitkilerin kontrol kutularında olanlara nazaran - Faraday kafesi niteliğinde olanlar da

dahil olmak üzere – daha iyi gelişim gösterdiği tespit edilmiştir.

Anahtar Kelimeler: Elektromanyetik alanlar, Bitki gelişimi, Orgon akümülatörü

1. INTRODUCTION

Magnetic field (MF) is an inevitable environmental factor for living beings in the world, especially for plants. In the course of evolution, all living organisms have been affected by the Earth's magnetic field, a natural component of their environment. GMF is constantly effective on living systems and affects many biological processes [1,2,3,4]. There are significant local differences in strength and direction of the earth's magnetic field. This value is 33 μ T in the equator and 67 μ T in the poles. MF are one of the environmental factors that plants are exposed to. Although it is not included in biotic and abiotic factors in the textbooks about plant development, it has been a subject that has been discussed for a long time in terms of its effect on plant development [5]. In recent years, studies on this subject have positive effects on plant development. In this research, we investigated the development of the most cultivated bean, wheat, chickpea and corn plants in different magnetic fields [6,7, 8].

The other part of the study is the orgone accumulator experiments. Wilhelm Reich is the inventor of this device. Wilhelm Reich (b. 24 March 1897 d. 3 November 1957) The Austrian American psychiatrist and psychoanalyst is one of the most radical figures in the history of psychiatry [9,10]. He is the author of well-known and remarkable books published in 1933, such as The Mass Psychology of Fascism and Character Analysis. He is one of Sigmund Freud's students, such as Carl Gustav Jung and Alfred Adler. After graduating from the faculty of medicine, he worked as a neuropsychiatrist at the University of Vienna Hospital, Neurology and Psychiatry between 1922 and 1924. In 1924 he entered the faculty of the Vienna Institute for Psychoanalysis and began to investigate the social causes of neuroses [11,12]. He had to leave Germany in 1933 and spent time in Norway, Sweden and Denmark until he emigrated to the United States in 1939. Wilhelm Reich argued that there was an energy surrounding the human body, which he called the orgone energy [13]. It even devoted its life to making an orgone energy collector. Through orgone energy, he claimed to have found the solution of all kinds of diseases including cancer, mental illness. Since 1930s, the issue of Orgone energy has been addressed in more than 1500 studies in scientific articles [14,15]. There are around 500 studies using the Orgone Accumulator (orgone collector) to investigate the effects of plant, animal and cancer cells on development. The concepts of Orgone Accumulator and orgone energy are considered pseudoscience according to modern science. Theoretically it is consistent in itself but inconsistent with other basic disciplines. However, most of the studies on orgone energy collector have positive results [16,17].

2. MATERIAL AND METHODS

7.8 Hertz, 83Hertz, 7.834 Hertz magnetic field generators used in this research of part of EM radiation effect on plant growth.

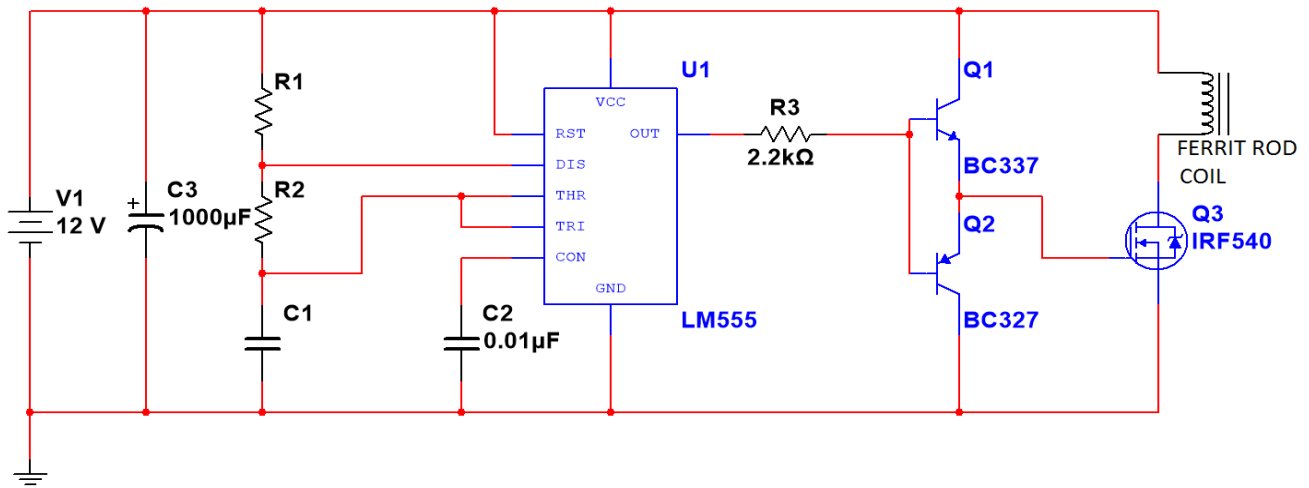


Figure. 1. EM radiation generator circuit design with LM555 integrated circuit. LM555 generate square wave according to $T=1/f=0.694(R_1+2R_2) C_1$ equation.

EM generators ferrit rod stuated near plant germination boxes along two week. Measurements was doing two time same day during plant germinations and development (Fig. 1). Statical analyses of datas; standart deviation, mean on measurement performed with SPSS software.

In the section on orgone of this study, we designed a 50x50x50 cm orgone energy collector and made two control boxes of the same size. The first control box was made of wood and the second was made of wood, but in the form of a Faraday cage to eliminate EM radiation. After heat and light insulation, we placed temperature, humidity sensors in all three boxes. We recorded instant measurements for 2 weeks (Fig. 2).



Figure 2. Construction stages of the Orgone accumulator and photographs of the test setup.

3. RESULTS

7.8 Hertz, 83Hertz, 7.834 Hertz magnetic field generators used in this research, the seed output rates of plants used in this research were 83% in 7.8 Hertz, 70% in 83 Hertz, 50% in control group 50%. The average length after germination was 4.92 cm at 7.8 Hertz, 3.86 cm at 83 Hertz, 32.46 cm at 7.83 Hertz and 34.70 cm in the control group. According to the research findings, seed output number and plant growth are good in ± 0.21 Hertz fluctuating magnetic fields obtained from 7.8 and 83 Hertz analog oscillators. The constant frequency of 7,834 Hertz obtained from the microprocessor of the world did not differ between the development of the magnetic field and the control group. In addition, the 7.8 Hertz magnetic field increased plant growth more than the first week of seed output but 83 Hertz magnetic field was more effective in the second week. As a result, variable frequency (± 0.21 Hertz) positively affects plant growth. According to the results of the study of orgone, the total amount of heat energy accumulated by all three boxes was the same. The lengths of the plants we grew in the control boxes were close to each other, but we observed that those in the orgone energy collector were about 30% longer and improved than the control. In the control boxes (mean = 26.22 cm, std. deviation = 9.58), ($p = 0.667$) in the orgone accumulator (mean = 37.04 cm, std. deviation = 13.63), ($p = 0.065$) we determined that the lengths of the plants we cultivated showed normal distribution according to Shapiro-Wilk test result. Therefore, we compared both groups with ANOVA. According to the analysis of variance, the mean values of the two groups were different from each other ($p = 0.04$). As a result, although the concepts of Orgone Accumulator and orgone energy are accepted as pseudoscience (pseudoscience) today, it would be useful to investigate this subject from other perspectives because of the positive results of the experiments (Fig. 3).



Figure 3. Plant lengths in the control and orgone box were measured as 26 cm and 37 cm, respectively.

4. DISCUSSION

In pods (*Vicia faba*) seedlings, a low magnetic field of 10 and 100 μT at 50 or 60 Hz has been observed to alter membrane transport processes at the root ends. Similar to our findings, Radhakrishnan and Kumari (2013) soybeans (*Glycine max*) induced by copper coil systems, for 20 days, 5 hours per day at 0.1, 1.0, 10.0 and 100.0 Hz 1500 nT pulsed MF, seed germination rate significantly increased, while 10 and 100 Hz pulsed MF ' It was determined that the most effective. Treatment with MF also improved germination parameters such as water uptake in laboratory conditions, germination rate, seedling length, fresh weight, dry weight, and soybean viability indices. Cryptochromes belong to a family of proteins that we call flavoproteins. These proteins have a nucleic acid derivative at their core: FADs (flavin adenine dinucleotide). FAD is a molecule that enables the exchange of electrons with what we call reduction-oxidation reactions (redox). This molecule is sensitive to EM fields. The cryptochromes exposed to the EM field make the cryptochrome highly active by exchanging H^+ with the surrounding amino acids - especially tryptophan. It is thought that cryptochromes regulate circadian rhythms in living things and create a sense of direction in living things. In this study, free hydrogen radicals formed by cryptochromes in the EM field may have influenced plant growth.

The gravitropic response mechanism, the perception of the change in the gravity vector, is important in determining the root elongation and direction of the plant. Gravity reorientation according to the starch-statolite hypothesis places amyloplasts on the new basal side of the cells. Support for the starch-statolith theory also comes from the use of high-gradient magnetic fields to displace statolites. Magnetophoretic displacement of statolites causes the hypocotyls to bend in the direction of the magnetic field while moving away from the magnetic field. According to this theory, magnetic fields are likely to stimulate root growth and therefore cause plant growth .

The effects of MFs were associated with separation of free radical processes in membranes and increased ROS production. It has been experimentally proven that MF may alter the activity of certain cleaning enzymes such as catalase (CAT), superoxide dismutase (SOD), glutathione reductase (GR), glutathione transferase (GT), peroxidase (POD), astostat peroxidase (APX). and polyphenoloxidase (POP). Static continuous MF and EF at low densities have significant effects on the antioxidant system in plant leaves, and weak MF is involved in antioxidant-mediated reactions in the apoplast and overcomes a possible redox imbalance.

Another possibility is to increase the rate of photosynthesis in MF. Yano et al. (2004), the rate of CO₂ uptake of radish seedlings exposed to MF was lower than that of control seedlings. The dry weight of the seedlings exposed to MF and the cotyledon region are also significantly lower than those of the control seedlings. According to Limoto et al. (1998), an MF of about 4 mT had beneficial effects on increasing and increasing the *in vitro* growth of CO₂ uptake of potato plants, regardless of the direction of MF. However, the direction of MF in the tested MF had no effect on growth and CO₂ exchange rate [18].

In this study, we found that low frequency electromagnetic fields containing square wave had a positive effect on plant growth. This may be because the movement of magnetic particles in the soil has a positive effect on material transport. The need to increase the frequency depending on the progress of plant development may be due to the increase in metabolic activities. Testing of low frequency magnetic fields on animal cells in the future studies will be beneficial in agriculture and health fields.

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