

# The Effect of Electromagnetic Fields on the Growth and Development of Plants

Bukia, Mariami (School: Georgian-American School)

Machaidze, Nino (School: Georgian-American School)

After the discovery of the electromagnetic field, people began to use these fields widely in everyday life. Today, it is impossible for people to reject radiological studies concerning mobile phones, television, radio and other electromagnetic devices. Over the past few years, the number of electromagnetic devices, including GPS, Wi-Fi, computers, has increased dramatically. Studies have shown that negative electromagnetic fields impact animal behavior and impact biological systems at nearly every level. It is, therefore, necessary to find to prevent the harmful effects of the electronic fields caused by mobile phones and other communication devices. Based on this, we decided to examine how the electromagnetic fields of communication frequencies would affect plant growth and development. In order to achieve this goal, we took two samples of the same plant that were planted at the same time. One of them was placed under the influence of the cellular frequency (900/1800 MHz) electromagnetic field, and the second sample we left in a cellular-free environment. The two samples had the same amount of light, warmth and water for growth and development. Both plants were under regular observation, and data was regularly checked concerning plant growth (height, leaf size) and health (leaf color, spots, mortality). The results showed that the electromagnetic field has significantly affected the development of plants, however, the EM field did not affect the plant in any negative way. At the same time, after the deliberate the EM source was removed, the plant gradually weakened, indicating the true affect of the EM field on plant. Thus, the results of our test confirm a positive impact of the electromagnetic field on plant growth and development.