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EFFECTS OF MAGNETIC FIELD ON SOYBEAN (Glycine max. L.Merrill) SEEDS

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SUMMARY

In our research, the seeds, belonging to J-357 soybean variety, which have different water contents were used with the purpose of determining the effect of magnetic fields on soybean seedlings. These were exposed to magnetic field strengths in the range of 50-60 Oe on the movable ground with the velocity of 1 m/sec. Depending on the apparatus prepared at the laboratory, the strength and the period of the magnetic field were changed. Soybean seedlings were grown from the seeds exposed to magnetic field of different strengths and from the seeds of the control group, at optimum conditions in the climate chamber. The seedling heights, dry and wet weights were determined. As a result, it was seen a positive effect of magnetic field on the seedling growth with the water content of 9.6% in comparison with the water content of 7.3%.

The effects of magnetic field's small changes on the biological systems have drawn attention of many scientists in biology, medicine and agriculture. Particularly in the recent years, many scientists have also started to investigate the positive effects of the magnetic field in biological systems besides the negative one.