

Studies on the effects of growth and development of peanut (*Arachis hypogaea* L.) by iron deficiency.¹

Chau-Yunn Lee² Yang-Zeng Tsai³ Kwan-Long Lai³

summary

The object of this study was mainly to investigate the effects of iron and pH values on the morphology and development of peanut plant (*Arachis hypogaea* L.). Two peanut cultivars namely, Tainan hsuan No.9 and Tainan No.11, were used and cultured in aseptically excised roots and embryo cultured in agar media. With Fe-proficiency or Fe-deficiency treatment. Excised roots cultured showed iron is necessary for the growth of root. Fe-deficiency will significantly inhibit the growth of the root. Excised embryo cultured aseptically in the Fe-deficient media showed limited fresh and dry weight increments than the contrast ones, and the leaves showed the Fe-deficiency symptom of chlorosis. This is suggesting that embryo culture method can be utilized effectively in the physiological studies of iron or other micronutrient in the future.

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². Assistant Agronomist, Division of Crop Improvement.

³. Professor, Department of Agronomy, National Taiwan University.