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The Effects of Different Mineral Nutrients on the levels of Cytokinins in Maize (*Zea mays* L.)

Peyami BATTAL, Bekir TİLEKLİOĞLU

Yüzüncü Yıl University, Faculty of Arts and Science, Department of Biology, 65080 Van - TURKEY

Abstract: In this study, Z (trans-Zeatin) and ZR (trans-Zeatin Riboside) levels in the roots, stems, leaves, flowers and fruits of maize plants (*Zea mays* L.) were determined using high performance liquid chromatography (HPLC). Plants were grown in media containing macro elements (nitrogen, phosphorus, potassium, calcium, magnesium, sulphur and iron) in optimum, deficient and excess concentrations. According to the average Z values for all periods, the highest Z levels were determined in the roots of plants treated with excessive P (-P); in stems, female flowers treated with excessive K (-K) and in leaves and kernels treated with excessive Ca (-Ca). The highest ZR levels were found in roots and stems treated with excessive Fe (-Fe), S (-S) and in leaves, female flowers and kernels treated with excessive K (-K).

Key Words: Zeatin, Zeatin riboside, Mineral nutrition, HPLC, Maize (*Zea mays* L.)

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