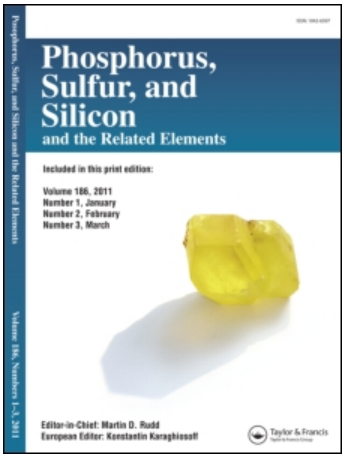

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Effect of Phosphate Fertilization on Micronutrient Content of Maize Plant

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Effect of Phosphate Fertilization on Micronutrient Content of Maize Plant

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The effect of fertilization and irrigation on phosphate and metal content in maize was studied in an arable land plot experiment on fertilization effects. A field plot experiment was carried out at the Látókép Farm 15 km from Debrecen. Each treatment consisted of 46 m^2 plots, arranged in a randomized block design with four replication, where the basic treatment was fertilization; the additional treatments were crop rotation, irrigation and cultivation. The soil is Calcareous Chernozem with 2.8-3.0% humus content. The depth of the humus layer is 70-90 cm. The N-content and original P-content of the soil is average, but it is rich in K. Besides macroelements, there is no shortage of trace elements. The element content of maize was determined with a Labtam 8440M inductively coupled plasma atomic emission spectrometer after digestion. A relationship between phosphate and microelement contents in plant was studied. A linear relationship between phosphate and magnesium, and some microelement contents can be found. Linear correlation in P and Mg content of maize was found strongest (Fig 1.).

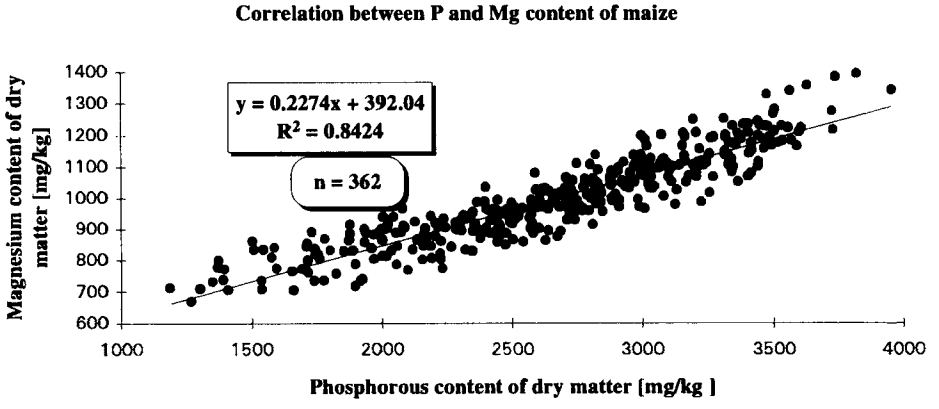

Figure 1.