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
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**Effect of Nitrogen and Phosphorus Fertilization on the Yield and Nutrient Status  
of Rice Crop Grown on Artificial Siltation Soil From the Kelkit River**

A. Reşit BROHİ, M. Rüştü KARAMAN, Arif AKTAS, Erdinç SAVAŞLI  
Gaziosmanpaşa University, Agricultural Faculty, Department of Soil Science, Tokat-  
TURKEY

 [Keywords](#)  
 [Authors](#)



[agric@tubitak.gov.tr](mailto:agric@tubitak.gov.tr)

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**Abstract:** The experiment was carried out on split plot design with four replications under greenhouse conditions. The pots containing 5 kg of soil which is collected from the 0-20 cm depth of artificial siltation area made with silty water of Kelkit River were used for this study. Nitrogen at the rates of 0, 60, 120, 180 and 240 kg/ha as urea and phosphorus at the rates of 0, 50, 100 and 150 kg P<sub>2</sub>O<sub>5</sub>/ha as triple superphosphate were applied to the soil before sowing. Additionally potassium was applied at 40 kg K<sub>2</sub>O/ha level as K<sub>2</sub>SO<sub>4</sub> per pot for normal plant growth. The Ribe rice variety was sown in 15 th June, 1995 and plants were harvested in 9 th October, 1995. Straw dry matter and grain yields were recorded and macro-nutrient (N,P,K) and micro-nutrient (Fe,Cu,Zn,Mn) content of straw and grain were analysed. Both nitrogen and phosphorus fertilization have increased the straw and grain yields of rice plant significantly. Maximum increase in straw yield, 29.84 g/pot, and grain yield, 13.99 g/pot, was obtained from 240 kg N/ha rate, on the other hand, 100 kg P<sub>2</sub>O<sub>5</sub>/ha had given the highest straw yield, 20.35 g/pot and grain yield, 9.35 g/pot, respectively. Macro-nutrient (N,P,K) and micro-nutrient (Fe,Cu,Zn,Mn) contents of straw and grain were significantly affected by N-fertilization, whereas only NPK content of straw and grain and only Mn content of grain were affected by P-fertilization. However, uptake of macro and micro-nutrients were significantly affected by N and P fertilizer rates.

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