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
Determination of the Alkalinity of Tokat-Kazova Soils

Kadir SALTALI

Gaziosmanpaşa Üniversitesi, Ziraat Fakültesi, Toprak Bölümü, Tokat-TÜRKİYE

M. Rifat DERİCİ

Çukurova Üniversitesi, Ziraat Fakültesi, Toprak Bölümü, Adana-TÜRKİYE

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



agric@tubitak.gov.tr

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Abstract: This research was conducted in order to determine the alkalinity of soils in Kazova and the Kg values which are an indicator of alkalinity. Twenty-four soil profiles were studied for this purpose. None of these profiles exhibited any alkalinity problem for 0-15 cm soil depths (except profile A₃). However, 3 profiles exhibited an alkalinity problem for 15-30 cm, 12 profiles for 30-60 cm, 11 profiles for 60-90 cm, and 6 profiles for 90-120 cm depths. The ESP values calculated for 30-60 cm were highest, followed by those for 60-90, 90-120, 15-30, 0-15 cm in decreasing order. The Gapon Coefficient (Kg), calculated from the experimental ESR - SAR values, varied between 0.0041 and 0.0264. The highest value (0.0264) was found at 30-60 cm, and the lowest value (0.0041) was found at 0-15 cm depths. The average Kg value of every layer of the profiles calculated for 1995 was higher than that for 1994, indicating a general increase in alkalinity of the study area soils. Hydraulic conductivity values, measured with disturbed soil samples, were extremely low at 30-60 cm depths. It was likely that the dispersion of the clay fraction decreased the hydraulic conductivity of the soils in this zone.

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