

Phosphate and potassium status of agro-well water in the Anuradspura district

An investigation was conducted to study phosphate and potassium status of agro-well water in tank villages in the Anuradapura district. This was carried out using 47 agro-wells of which 15, 20 and 12 wells were located on well drained (WD), imperfectly drained (ID) and poorly drained (PD) Alfisols. For comparison purpose, four tanks (Paindikulama, Maha Kanumuu=lla, Kuchikulama and Thannayankulama) in the vicinity of agro-wells and tanks for a period of 11 months from February 1992 and samples were analyzed for phosphate and potassium.

Results showed that mean phosphate contents of tank and agro-well waters were 0.03 and 0.02 ppm, respectively. Further, differences in phosphate contents in agro-well water in relation to soil drainage regimes were not observed. Mean potassium concentrations were 9 ppm in tank water and 2.1, 5.5 and 2.4 ppm in water in agro-wells located on WD, ID and PD soils, respectively.

This study reveals that agro-well water does not contain phosphate in excessive levels. In comparison with tank water, agro-well water is low in potassium. It should be taken into consideration in recommending potassium needs of crops grown under agro-wells.