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Nitrate ststus of agro- well water in the Anuradapura district

In Sri Lanka, farmers use agro-well water also for drinking purpose. There is a potential of contaminating such water by nitrates particularly in intrnsively farming areas. An investigation was conducted to study nitrate status of agro-well water in tank village areas in the Anuradapura district. Thiswas 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, respectively.

Four minor tanks (Paindikulama, Maha Kanumulla, Kunchikulama and Thannayankulama) in the vicinity of agro- wells were also selected for comparison purpose. Monthly water samples were collected from both agro-wells and tanks for a period of 11 months from February 1992. The samples were analyzed for nitrates.

Results indicated that mean nitrate concentration in tank water was 0.2 ppm with a maximum value of 1.6 ppm showing presence of lower levels of nitrate in tank water IN contrast, mean nitrate contents in water were 7.8, 2.1 and 0.9 ppm in agro-wells located on WD, ID and PD Alfisols, respectively. Further, maximum nitrate content in agro-well water was 31.6 ppm. This study shows the potential for occurring nitrate in agro-well water in exceeding permissible levels for drinking purpose.