The impact of the extensive use of phosphate fertilizers on radioactivity levels in farm soil and vegetables in Tanzania

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Abstract

Soil and vegetables grown in Iringa rural in Tanzania were analysed for radioactivity associated with the use of phosphate fertilizer in farming. The activity concentrations of 226Ra, 228Ra and 40K were determined using gamma spectrometry of Tanzania Atomic Energy Commission, Arusha. Higher activity concentrations of 226Ra and 228Ra in both types of samples were found in samples from fertilized farms than in samples from control. Hence, regular monitoring of radioactivity level in farm soils and agricultural products is recommended.

Keywords: Radioactivity, Soil, Vegetables, Phosphate fertilizer, Iringa rural