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Assessment of natural radionuclide concentrations (Norms) in some selected medicinal plants . ADETOMIWA ALADE, Science Laboratory Department, Federal College of Animal Health Production Technology, Moor Plantation, Ibadan — In this study, the activity concentration ^{40}K, ^{238}U and ^{232}Th in seven selected medicinal plants collected from Institute of Agricultural Research and Training, Ibadan was reported. Gamma-ray spectroscopy was employed to perform the measurements using a NaI (TI) detector. The average annual committed effective dose (AACED) and annual gonadal equivalent dose (AGED) due to the ingestion of radionuclides from medicinal plants were also estimated. The results of the analysis indicated a mean activity concentration of ^{40}K, ^{238}U and ^{232}Th as 69.42, 5.62 and 1.58 Bq/kg respectively. *Vernonia amygdalinaa* recorded the highest activity concentration for all the radionuclides. The estimated mean value of 0.00104 mSv/yr and 45.769 Sv/yr for AACED and AGED are far below the world average of 0.30 mSv/yr and 300 Sv/yr respectively for ingestion of NORMs provided in UNSCEAR 2000 report for an individual. Therefore, the radiological hazard associated with intake of NORMs in the medicinal plants is insignificant. The results could provide baseline values useful in establishing regulations relating to radiation protection as well as developing standards and guidelines for the use of medicinal plants.

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