State and Potential Commercial Irradiation in Tunisia

Abstract
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Following the installation of a semi-commercial Cobalt 60 irradiator, the National Center for Nuclear Sciences and Technologies where this unit is set up, has realized the dose mapping of the inner cell with air, sawdust (density : 0.2 Kg/m3) and potatoes (density : 0.43 Kg/m3).

Results show that dose rate in air changes from 193,23 Gy/min at 40 cm to 2.167 Gy/min at 260 cm from the axis of the source, while the dose rate in sawdust is 5.7 Gy/min in 2m3 of product with a dose max/Dose min = 2,05

Irradiation of product such as wine, oranges, tomatoes, shrimp, spices and sterilization of flies are underway for dose validation for large scale treatment.

Technical standard regulation for the irradiation unit and food products had been promulgated while single use medical product regulation is underway. Indeed Promulgation of regulations are key elements in international trade of emerging products in order to avoid non costums barrier.