

Inspections are to be conducted combining a rigorous inspection (i) and an efficient screening test (ii).

- (i) Radionuclide analysis using germanium semiconductor detectors
- (ii) Screening by measurement of radioactive cesium using NaI scintillation spectrometers
 - ← Introduced to inspect a larger number of samples in a short time

< Procedures >



This figure shows procedures for inspections of radioactive materials in foods.

There are two ways to inspect foods, i.e., a rigorous inspection and an efficient screening test.

As a rigorous inspection, radionuclide analysis is conducted using a germanium semiconductor detector. After shredding a food sample, its weight is measured accurately. Then, the shredded sample is put in a prescribed container. The container is set in a detector, which is structured like a box covered with a thick layer of lead, and the amount of radioactive cesium is measured. Lastly, measurement results are analyzed.

For an efficient screening test, a NaI (Tl) scintillation spectrometer is used. A NaI scintillation spectrometer is inferior to a germanium semiconductor detector in terms of measurement accuracy, but can shorten the time required for inspections and is less expensive. If the measurement using a NaI scintillation spectrometer suggests the existence of radioactive cesium exceeding the standard limits, an inspection is conducted again using a germanium semiconductor detector.

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