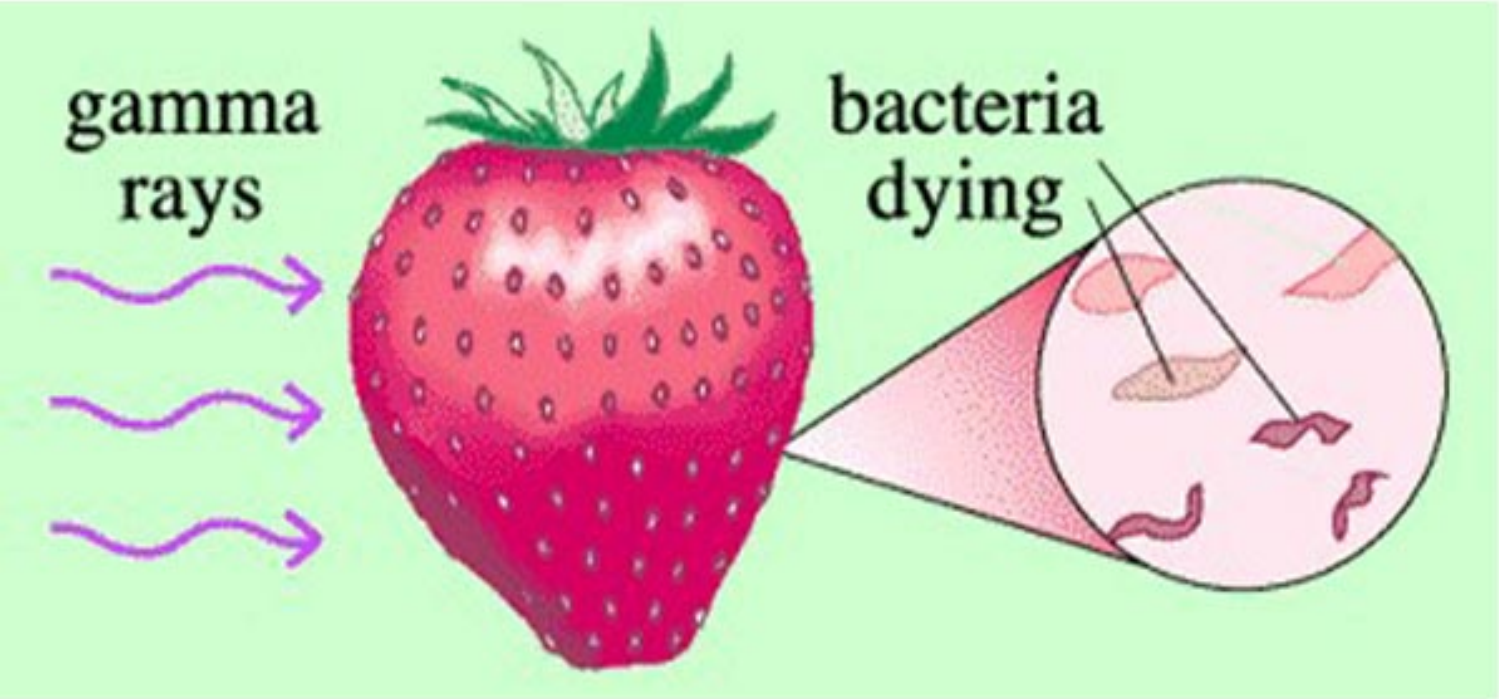
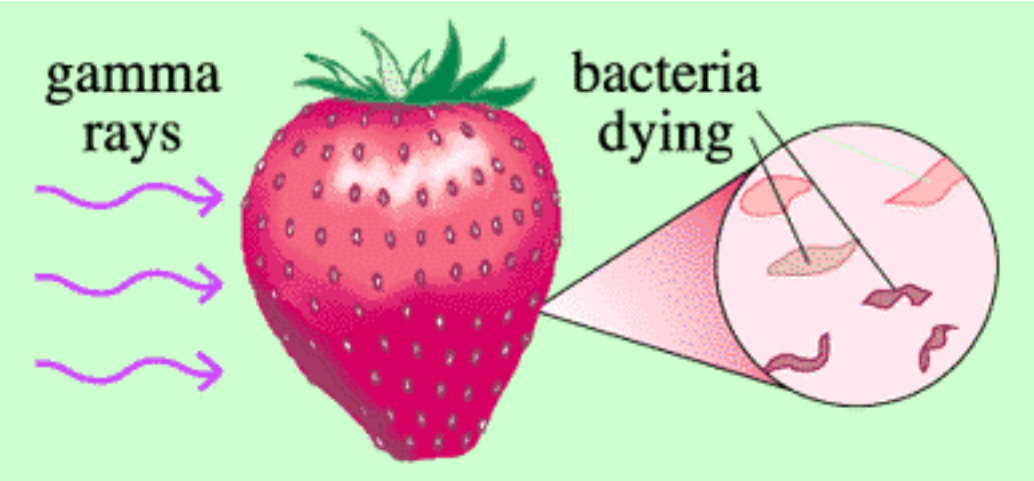
Gamma irradiation

By IASToppers | 2021-08-06 17:50:00



Gamma irradiation

The gamma irradiation process uses **Cobalt 60 radiation** to kill microorganisms on a variety of different products in a specially designed cell.



- Gamma radiation is generated by the **decay of the radioisotope Cobalt 60,** with the resultant high energy photons being an effective **sterilant.**

Applications:

- Its applications include **sterilization**, decontamination and materials modification.
- It is used for:
  - Inhibition of sprouting in bulbs and tubers
  - Insect disinfestation of cereals, pulses and grains
  - Microbial decontamination (hygienization) of dry spices for preservation/shelf-life extension by applying pre-determined radiation doses.
- It offers **good penetration** of dense products and is ideal for many types of materials and their packaging.
- Presently **26 Gamma Radiation Processing Plants** are operational in India in private, semi government and government sector for irradiation of various products.

[Ref: PIB; STERIS]

