



Increasing capabilities through Gamma and E-beam Irradiation

IRRADIATION FACILITIES



The Philippine Nuclear Research Institute (PNRI), through the Irradiation Services Section, operates state-of-the-art irradiation facilities, offering a wide range of applications in food safety, medical sterilization, research, and industrial processing.



Gamma radiation can extend the shelf life of food, sterilize medical products, improve the quality of agricultural products and even induce beneficial genetic changes in crops and plants.

The **electron beam** facility is the first of its kind in the country, enabling deeper research and semi-commercial services.



These technologies are expanding the applications of radiation technology to include semiconductor processing, product sterilization, food irradiation, and polymer processing.

Advantages of Irradiation Technology

- No heat applied (cold process)
- No harmful toxic residues
- Can be applied to products in their final packaging
- Reduces the need for chemical fumigants like ethylene oxide and methyl bromide
- Sterilizes medical devices and pharmaceuticals without heat or chemicals
- Eliminates harmful pathogens
- Extends shelf life by delaying spoilage and inhibiting sprouting
- Preserves nutritional value without affecting taste, texture, or freshness
- Enhances material properties

OUR FACILITIES

SELF-SHIELDED GAMMA IRRADIATORS



The Gammacell 220 (left) and Ob-Servo Sanguis (right) are designed for low-volume of samples, supporting research and development for academe, research institutions, and industries.

PHILGAMMA



The multipurpose Gamma Irradiation Facility is the only commercial, fully automated irradiation facility in the Philippines. It uses Cobalt-60 gamma radiation to process bulk commercial and industrial products, including:

- Decontamination of spices, seasonings, herbal products, and cosmetic raw materials
- Sterilization of medical devices, pharmaceutical products, packaging materials, and tissue grafts

E-BEAM FACILITY



The first of its kind in the Philippines! This 2.5 MeV Electron Beam Facility enables:

- Polymer modification
- Environmental remediation
- Agricultural processing to induce beneficial effects
- Semiconductor processing

Contact us

For more information, please email
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