



Ionizing
Technology
Needs For Food Processing



ATEWAY AMERICA



ATEWAY AMERICA

Governments Worldwide Endorsing Food Irradiation





U.S. Agencies & Associations Endorsing Food Irradiation



(EPA)
U.S. ENVIRONMENTAL
PROTECTION AGENCY



(USDA-APHIS-PPQ)
U.S. DEPARTMENT
OF AGRICULTURE



(USDA-FSIS)
U.S. DEPARTMENT
OF AGRICULTURE



(CDC)
U.S. CENTER FOR
DISEASE
CONTROL & PREVENTION



(AMI)
AMERICAN MEAT
INSTITUTE



(GAO)
U.S. GOVERNMENT
ACCOUNTABILITY
OFFICE



(HHS)
U.S. DEPARTMENT OF
HEALTH AND
HUMAN SERVICES



(FDA)
U.S. FOOD & DRUG
ADMINISTRATION



(AMA)
AMERICAN MEDICAL
ASSOCIATION



(NFPA)
NATIONAL FOOD
PROCESSING
ASSOCIATION



(DOD)
U.S. DEPARTMENT
OF DEFENSE

International Agencies Endorsing Food Irradiation



(WHO) WORLD HEALTH
ORGANIZATION



(IAEA) INTERNATIONAL
ATOMIC ENERGY AGENCY



(FAO) FOOD & AGRICULTURAL
ORGANIZATION UNITED NATIONS

21 CFR179.26

Types of Ionizing Radiation;

- Electrons up to 10 MeV
- X-Ray up to 7.5 MeV
- Radioactive Isotopes- Cobalt 60

Dose Requirements

Label Design- FDA Requiements

- Radura Label 
- Treated w/radiation or Treated by Irradiation



7 CFR305.31

7 CFR305.9

- Prevents the introduction or dissemination of Plant Pests and Noxious Weeds into or “within” The United States

Approval Process for On-Boarding a new Country and Commodities (USDA-APHIS-PPQ)

1. Farm/Exporter contact their National Plant Protection Organization or (NPPO) with a request
2. NPPO sends an official request to USDA-APHIS-PPQ Country Trade Director
3. Risk Assessment Review (3-5 years if not already completed)
4. Bi-Lateral Discussion USDA/NPPO signature of Framework Equivalency Work Plan or (FEWP)
5. USDA/ NPPO signature of Operational Workplan or (OWP)
6. Comment Period 30-60 Days
7. Approval, Publication in Treatment Manual, and Activation of Program
8. Product Importation
9. Dose Mapping
10. Production Treatment
11. Dosimetry
12. Labeling
13. Upload Treatment Data to Irradiation Reporting and Accountability Database (IRADS)
14. Shipping

Benefits of Food Irradiation

- Harvest Products at Optimum Ripening Phase
- Eliminates harmful pathogens to non-detectable levels (E.COLI 0157:57; SALMONELLA; LISTERA; etc.)
- Extends shelf-life
- Attacks DNA: parasites & insects = low dose
- Nutritional value remains unchanged

