



United States Department of Agriculture
Animal and Plant Health Inspection Service

Plant Protection and Quarantine



APHIS IRRADIATION PROGRAMS

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USDA-APHIS-PPQ

Plant Health Programs



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Irradiation as Phytosanitary Treatment

- Irradiation is one of the few viable alternatives to methyl bromide fumigations.
 - MeBr is being phased out and we need an treatment to replace it.
- Irradiation is effective against a wide range of pests.
 - Irradiation can be a substitute for complicated and costly combinations of treatments, systems approaches, and other mitigations.
 - Helps facilitate trade.



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APHIS Irradiation Programs

- Preclearance: Treatment in a foreign country with APHIS inspectors present (India, Thailand, Mexico, Viet Nam)
- Port of Entry: Treatment when commodities reach the US.
- Domestic Quarantine: Treatment in quarantined area (Hawaii).
- Exports: In development



Pre Clearance Irradiation Programs

- India
 - KRUSHK facility (government owned) certified in April 2007.
 - Alfonso Mangoes
- Thailand
 - Thai Irradiation Center (TIC) certified October 2007
 - Isotron Thailand certified March 2008
 - Mangoes, Mangosteens, Lychees, Longans, Rambutans, Pineapples
- Viet Nam
 - Son Son Corporation certified August 2008
 - Dragon Fruit
- Mexico
 - Sterigenics certified Sept 2008.
 - Guavas. Mangoes, citrus, carambola, and manzano peppers
- Over 26 million pounds of fruit treated.



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Port of Entry Program - Domestic Irradiation

- Domestic Irradiation is now an option
- Sadex Corporation – APHIS PPQ Certified Irradiation Treatment Facility.
- Pakistan Mangoes – approved to be treated in the US.

Development of Exports -- Agreements

- Framework Equivalency Work Plan
 - Mutual agreement that each country can legally accept the other's system of irradiated products
 - Signed by more than 10 countries with many others interested.
- Operational Workplan for Exports
 - Bilateral agreement signed by APHIS and foreign NPPO that describes requirements for import and export of products for quarantine irradiation treatment.
 - Under development

Development of Exports – Technical Assistance

- Technical Assistance for Specialty Crops (TASC)
 - Identify markets and export barriers
 - Efficacy research on pest specific doses
 - Establish relationships between fruit and vegetable producers, irradiation industry, and government.
 - Quality evaluations.
- IRADS for exports
 - Web-based database created to store treatment and traceback information for irradiation treatments.



Domestic Irradiation Treatment Facility Certification

- APHIS staff perform onsite inspections at each facility prior to treatment.
- Ensure that:
 - The required dose can be delivered, measured, and reported accurately.
 - Facility has SOPs and is following them.
 - Data management and package labeling requirements are met.
 - Safeguards are in place.
 - Commodities are handled properly and segregated.

Summary

- PPQ actively supports the use of irradiation as a phytosanitary treatment.
- Imports and domestic programs have used irradiation for several years.
- PPQ working to develop the infrastructure necessary to support export programs that use irradiation.
- We need your input and support to make the programs work!