Phytosanitary Irradiation: A Flexible Solution in a Rigid Regulatory World

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National Operations Manager
Field Operations
USDA APHIS PPQ
Regulate the movement of any commodity capable of harboring invasive, threatening plant pests, including noxious weeds, in order to protect the “agriculture, environment, and economy of the United States”

Facilitate import, export, and interstate commerce of agricultural products and other commodities that pose a risk of harboring certain plant pests

Plant Protection Act of 2000
Plant Protection and Quarantine Organizational Structure
Current as of September 2017

Field Operations
Matthew Royer, Associate Deputy Administrator
Carlos Martinez, Executive Director
- Associate Executive Director – Specialty Crops, Safety & Health, Export & Trade – States: AK, WA, OR, CA, NV, UT
- Associate Executive Director – VMO, Regulated Garbage, States: ID, MT, WY, CO, ND, SD, NE, KS, HI
- Associate Executive Director – Forest Pest & Biocontrol, Permitting States: MN, WI, MI, IA, IL, IN, OH, MO, KY, TN
- Associate Executive Director – AQI, P&Z Treatments, Beltsville Germplasm Lab-States: ME, VT, NH, MA, RI, CT, NY, NJ, PA, DE, MD, WV
- Associate Executive Director – Pest Management, Pest Detection, Emergency Response, Farm Bill-States: VA, NC, SC, GA, FL, AL, MS, FR
- Associate Executive Director – Cotton & Field Crops, SITC, Compliance, AFD-States: AZ, MN, OK, TX, AR, LA
- Associate Executive Director – Data Analysis Risk & Targeting, IT End User Tools, Information Technology, Customer Service
- Administrative Support

Policy Management
Alan Dowdy, Associate Deputy Administrator
Matt Rhoads, Executive Director
- Resource Management Services
- Professional Development Center
- Cooperator Training Unit
- Field Operations Training Support
- National Detector Dog Training Center
- Plant Health Programs
- Preliminary & Offshore Programs
- Quarantine, Policy, Analysis, and Support
- National Identification Services
- Imports, Regulations, and Manuals
- Permitting and Compliance Coordination
- Pest Detection and Emergency Programs
- Pest Management
- Export Services
- Administrative Support

Osama El-Lissy
Deputy Administrator
Phytosanitary Issues Management
- Andrea Simao – Assistant Deputy Administrator
- International Plant Health Standards
- John Greff – Assistant Deputy Administrator
- Analysis and Information Management
- Ginger Murphy – Assistant Deputy Administrator
- Intergovernmental Relations
- Paula Henkridge – Assistant Deputy Administrator
- Outreach and Communications
- Labor and Employee Relations – Angela French-Bell
- Chief of Staff – Pamela Stanzani

Science and Technology
Ron Sequeira, Associate Deputy Administrator
Phil Berger, Executive Director
- Center for Plant Health Science and Technology
- National Clean Plant Network
- PPO Representative on Climate Change; Plant Health Quadrilaterals Science Collaboration Working Group; Coordinating Office for Science and Technology Assessment; European Phytophytological Research Coordination
- Administrative Support
AQI
Agricultural Quarantine Inspection
Regulatory Summary

- Market access granted
- Framework equivalency work plan signed
- Operational work plan signed
- Commodity-specific addendum signed
- Facility plan approved
- Facility certified
- Importer compliance agreement signed
- Importer permit granted
- Packaging approved
- Process configuration approved
Irradiation Program Types

Preclearance and Offshore
Irradiation of U.S. Imports in Country of Origin

Upon Arrival (Port of Entry)
Irradiation of U.S. Imports in United States

Domestic Quarantine
Irradiation for Domestic Movement out of Federal Quarantines

Exports
Irradiation of U.S. Exports
The Genesis of Port of Entry

Sadex Corporation
- Certified 2009
- Sioux City IA
- Pakistan Mangos
- E-beam
Upon Arrival Facilities

Gateway America
Gulfport, MS

National Center for Electron Beam Research
College Station, TX

Sadex
Sioux City, IA
What’s available today?

Dominican Republic: mango

Grenada: ambarella, purple mombin, yellow mombin

Mexico: guava, mango, manzano pepper, fig, grapefruit, sweet lime, sweet orange, tangerine

Pakistan: mango

Peru: blueberry, fig, pomegranate

South Africa: persimmon, litchi
Mombin?!?
# Generic and Pest-specific Doses

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Minimum Absorbed Dose (Gy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryptophlebia illepida</td>
<td>Koa seedworm</td>
<td>250</td>
</tr>
<tr>
<td>Cylas formicarius elegans</td>
<td>Sweet potato weevil</td>
<td>150</td>
</tr>
<tr>
<td>Cydia pomonella</td>
<td>Codling moth</td>
<td>200</td>
</tr>
<tr>
<td>Eusceps postfasciatus</td>
<td>West Indian sweet potato weevil</td>
<td>150</td>
</tr>
<tr>
<td>Graphitoleta moesta</td>
<td>Oriental fruit moth</td>
<td>200</td>
</tr>
<tr>
<td>Omphisa ananomosalis</td>
<td>Sweet potato vine borer</td>
<td>150</td>
</tr>
<tr>
<td>Pseudaulacaspis pentagona</td>
<td>White peach scale</td>
<td>150</td>
</tr>
<tr>
<td>Rhagoletis pomonella</td>
<td>Apple maggot</td>
<td>60</td>
</tr>
<tr>
<td>Stenochetus mangiferae</td>
<td>Mango seed weevil</td>
<td>300</td>
</tr>
<tr>
<td>All other fruit flies of the family Tephritidae which are <strong>not</strong> listed above</td>
<td></td>
<td>150</td>
</tr>
<tr>
<td>Plant pests of the class Insecta <strong>not</strong> listed above, except pupae and adults of the order Lepidoptera</td>
<td></td>
<td>400</td>
</tr>
</tbody>
</table>
Trade Impacts

Generic Absorbed Doses Facilitate Trade

If a risk analysis of a new commodity demonstrates that no pupae or adult Lepidoptera follow a pathway, then export approval can happen without further research.
Future of Upon Arrival Irradiation

Condition of Entry
Treatment

Emergency Action

US Imports: MB Usage
**Bactrocera dorsalis**
Oriental fruit fly

OFF is a devastating pest with a broad host range of cultivated and wild fruits

Periodic outbreaks in CA, FL
OFF Quarantine

Gateway America
Gulfport, MS

Treated
28K kg dragon fruit
and
24K kg mamey sapote

Oriental Fruit Fly
Quarantine 2015/2016
South Florida
FF&V Import Manual


- List of all Enterable Fruits and Vegetables into US
- Condition of Entry Treatments
- Regions of Entry
- Additional Requirements
FAVIR

PPQ Stakeholder Registry

https://public.govdelivery.com/accounts/USDAAPHIS/subscriber/new

Email Updates
To sign up for updates or to access your subscriber preferences, please enter your contact information below.

Subscription Type

Email

*Email Address

Submit  Cancel

Your contact information is used to deliver requested updates or to access your subscriber preferences.

Privacy Policy - Help
THANK YOU