



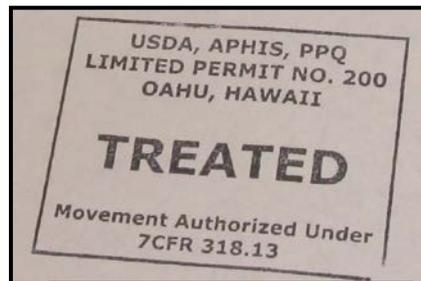
DATE: March 7, 2013
TO: All County Agricultural Commissioners
FROM: Plant Health and Pest Prevention Services
SUBJECT: **PEST EXCLUSION ADVISORY NO. 02-2013**
New Hawaiian Irradiation Facility, Pa'ina Hawai'i

Since 2000, the Hawaiian company Hawaii Pride LLC has been the only facility approved by the United States Department of Agriculture (USDA) to conduct phytosanitary irradiation treatment for fruits and vegetables being exported to California. A second USDA approved irradiation treatment facility located in Hawaii, **Pa'ina Hawai'i** is now fully operational and will also be treating commodities destined for California.

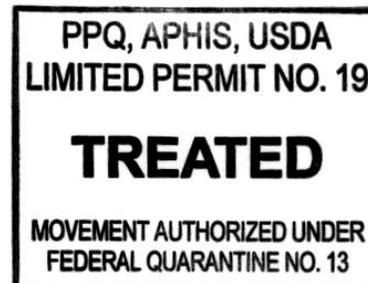
Federal regulations govern the movement of fruits and vegetables from Hawaii to the continental United States (7CFR 318.13) and provide packaging guidelines (7CFR 305.9) for irradiated shipments to ensure pest freedom and the integrity of pallet-loads of irradiated boxes. For more information concerning the radiation treatment and protocols, and for a list of pest-specific minimum absorbed doses, please see the [USDA treatment manual, section 3-8\(1-8\)](#).

Commodities treated at these irradiation facilities will be certified in the following two ways:

Limited Permit Stamp: This will be used on air cargo and maritime cargo bill of lading documents. The limited permit stamp is on each box of treated commodities either as or incorporated into the sealing tape itself or as a stamp impression across the tape. Please see examples below.



Pa'ina Hawai'i
Irradiation Facility Limited Permit
Stamp #200



Hawaii Pride LLC
Irradiation Facility Limited Permit
Stamp #19

Certificate of treatment by irradiation: Treatment certificates will accompany shipments of irradiated commodities entering California directly from Hawaii. Certificates may show the shipper and the consignee as the same and additional ports of entry and carrier identification listed as "Various". Only one certificate is issued for a treatment lot and copies can accompany multiple shipments destined to various consignees.



Each box that contains commodities treated via irradiation originating from Hawaii will have the following markings:

- **Tracking label (lot number)**

The lot number may be on a printed sticker, or hand-written and it will match the lot number on the irradiation certificate. The tracking number allows each box to be tracked by grower, treatment date, and processing control number (PCN).

- **Radura symbol stamp**

The international Radura symbol and the statement 'Treated by Irradiation' or 'Treated with Radiation' printed **OR** stamped on each box.



Phytopsanitary irradiation treatments of commodities work by exposing consignments to low levels of ionizing radiation, typically just over 400 Grays (Gy). These treatments offer a safe and reliable alternative to traditional treatments such as fumigation. The energy that the produce is exposed to during the treatment will break chemical bonds in some molecules necessary for growth and development of insects, such as DNA and enzymes. This molecular damage can cause lethal or sub-lethal effects to susceptible insects present in the produce. Although some insects may still be alive after treatments, they will not be able to complete their development or reproduce. Most fruit and vegetable commodities are better able to tolerate irradiation than insects are, and the quality of produce is not affected. It should be noted that produce exposed to these treatments do not become radioactive because only energy, and not radioactive particles, passes through the produce.

Inspectors in California should use the following California Department of Food and Agriculture policy for shipments of fruits and vegetables from Hawaii that are found infested with live pests:

- A. **Any** pest found inside the carton upon arrival can be assumed to have been irradiated.
- B. If polyethylene sheet wrap was used to wrap the cartons on a pallet, any **mobile** pest that is found outside the cartons but underneath the pallet wrapping can be assumed to have been irradiated **IF** there are no openings (cuts, tears, etc.) in the wrapping that would allow the entry of a mobile pest.
- C. If there are openings in the pallet wrapping, inspectors can assume with discretion that the mobile pests infested the shipment after irradiation and therefore were not subject to the treatment. Heavy infestations (inspector discretion) in such circumstances should result in rejection.

For questions regarding this advisory, please contact Erin Lovig at (916) 654-0312 or by e-mail at erin.lovig@cdfa.ca.gov.