

Food Irradiation in the US

The US has the most advanced commercial food irradiation program in the world and information on the current status of this practice can be obtained from the [Food Irradiation Update](#) Newsletter. Food products irradiated in 2010 included 80,000 tons of spices, 15,000 tons of fruits and vegetables, and 8,000 tons of meat and poultry; thus, the total was 103,000 tons

Compared with 2005 the quantity of fruits and vegetables irradiated for disinfection increased by 100 tons in 2010, and the levels for other items were identical. The irradiation of spices for disinfection is the main food irradiation practice in the US and levels for spice irradiation have remained steady.

Phytosanitary irradiation of fruits and vegetables has been increasing both in the US and globally. In 2010, figures for phytosanitary irradiation (mainly fruits) were 5,734 tons (US), 493 tons (Australia), 10 tons (India), 951 tons (Thailand), 850 tons (Vietnam), and 10,318 tons (Mexico). This accounted to a total 18,446 tons. A significant amount of the total (17,953 tons, 97%) was exported to the US; this included transport from Hawaii to the US mainland. Australia was the only country that did not export to the US.

The commercial use of phytosanitary irradiation in Hawaii began in 1995 and an X-ray facility was built in Hawaii in 2000. Pa'ina Hawaii opened an irradiation facility in 2013. This allowed economical large-scale irradiation. Initially, the main product irradiated in Hawaii was papaya; however, papaya irradiation in Hawaii decreased from 1,040 tons in 2005 to 12 tons in 2010. Conversely, sweet potato irradiation increased from 1,780 tons (57%) in 2005 to 5,370 tons (94%) in 2010.

Exports of irradiated fruits from Asia to the US were initiated by India in 2007 with Thailand and Vietnam following suit. Thailand started to export irradiated fruits (longan and mango) to the US in 2007 and four kinds of irradiated fruit (mangosteen, 30 tons; longan, 595 tons; litchi, 18 tons; and rambutan, 8 tons) were exported in 2010.

Vietnam started shipping irradiated dragon fruit to the US in 2008 and the shipping of rambutan was started in 2011. These countries expect to expand their range of items and quantity of phytosanitary irradiation, while other countries such as Malaysia, Pakistan, and the Philippines are also expected to export irradiated fruits to the US in the future. Mexico also started shipment of irradiated guava to the US in 2008. Total exports were 257 tons in 2008 and 3,521 tons in 2009. In 2010, these exports increased markedly to 10,318 tons and comprised guava (9,121 tons) as well as sweet lime (60 tons), mango (239 tons), grapefruit (101 tons) and manzano pepper (257 tons). Mexico is now the largest exporter of irradiated agricultural products to the US because they provide cost advantage and rapid land transport between the two countries.

Source: [Food Irradiation in Asia, the European Union, and the United States: A Status Update](#);

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