

TABLE 1.—PRODUCTION OF SELECTED VEGETABLES IN HAWAII

	Year			
	1995	1996	1997	1998
Bell Peppers				
Volume (fresh weight in lbs.)	2,400,000	2,600,000	2,000,000	3,000,000
Value	\$1,392,000	\$1,248,000	\$980,000	\$1,500,000
Eggplant				
Volume (fresh weight in lbs.)	1,200,000	1,300,000	1,500,000	1,300,000
Value	\$984,000	\$949,000	\$1,185,000	\$1,053,000
Pineapples (other than smooth Cayenne)				
Volume (fresh weight in lbs.)	760,594,590	765,003,834	714,297,528	731,934,504
Value	\$87,360,000	\$95,914,000	\$91,721,000	\$92,776,000
Italian Squash				
Volume (fresh weight in lbs.)	620,000	700,000	1,400,000	1,500,000
Value	\$316,000	\$336,000	\$700,000	\$735,000
Tomatoes				
Volume (fresh weight in lbs.)	6,000,000	7,000,000	10,200,000	10,200,000
Value	\$2,910,000	\$3,710,000	\$5,508,000	\$5,610,000

TABLE 2.—CHANGE IN PRODUCTION OF SELECTED VEGETABLES IN HAWAII BETWEEN 1995 AND 1998

	Volume (percent)	Value (percent)
Bell peppers	-4	+6
Eggplant	+70	+93
Pineapples (other than smooth Cayenne)	+25	+8
Italian squash	+8	+7
Tomatoes	+142	+96

According to the Hawaii Agricultural Census, there were 27 farms growing pineapples for commercial sale in 1997. Twenty-two (or 82 percent) of those farms harvested between 1 and 14 acres of pineapple. During the same year, 74 farms produced tomatoes for commercial sale (a total of 388 acres harvested). There are no official data with respect to the number of farms in Hawaii producing bell peppers, eggplant, and Italian squash during the

same year. However, considering that in 1997 there were 657 farms in Hawaii that harvested fruits and vegetables for sale (90 percent of which had less than 14 acres of crops planted), we believe that the majority of farms producing bell peppers, eggplant, and Italian squash for sale were small according to Small Business Administration (SBA) criteria. It is also likely that the majority of firms shipping bell peppers, eggplant, and

Italian squash interstate from Hawaii are small according to SBA criteria.

Regardless of their size, Hawaii's fruit and vegetable producers and shippers who move fruits and vegetables interstate from Hawaii will benefit from the availability of an additional treatment alternative, especially since this treatment is less time-consuming than the presently available vapor heat treatment (*see* Table 3).

TABLE 3.—COMPARISON OF IRRADIATION AND VAPOR HEAT TREATMENTS

	Irradiation	Vapor heat
Cost	\$0.22 to \$0.33/kg (treatment cost)	\$0.20 to \$0.50/kg
Treatment Time	40 minutes	1.5 to 7 hours

Effects on Treatment Facilities

The irradiation treatments for bell peppers, eggplants, mangoes, pineapples (other than smooth Cayenne), Italian squash, and tomatoes will take place mostly at a new facility that was recently built in Hawaii. However, it is possible that some of

these fruits and vegetables could be shipped to the mainland United States and treated with irradiation at facilities in Illinois or New Jersey. At present, various other tropical fruits, such as papaya, litchi, rambutan, carambola, and atemoya are shipped from Hawaii to a facility in Illinois for cobalt irradiation treatment.

On August 1, 2000, a new x-ray irradiation facility in Hawaii began treating papayas, which, after their x-ray treatment, are commercially shipped to the mainland United States. This facility treats between 500 to 1,000 boxes of papayas per day, 4 days per week.

This facility will be the primary irradiation facility to treat Hawaii-grown