

**GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA**

UNSTARRED QUESTION NO:1348
ANSWERED ON:22.08.2007
IRRADIATION TECHNOLOGY FOR FOOD PRESERVATION
Barman Shri Hiten

Will the Minister of ATOMIC ENERGY be pleased to state:

- [a] whether the Government has formulated any strategy for use of irradiation technology for food preservation;
- [b] if so, the details thereof;
- [c] whether the Government has conducted any research to ascertain the utility to be derived from irradiation in the field of food preservation;
- [d] if so, the results thereof;
- [e] the number of radiation processing plants set up both in Public and Private sector in the country during each of the last three years, State-wise; and
- [f] the steps taken to augment the use of this facility in the country?

Answer

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI PRITHVIRAJ CHAVAN)

[a] Yes, Sir.

[b] The Atomic Energy (Control of Irradiation of Food) Rules to enable radiation preservation of food have been issued. The Ministry of Health & Family Welfare have approved radiation processing of a wide range of spices, food products, Ayurvedic herbs and formulations under the Prevention of Food Adulteration (PFA) Act Rules. Irradiation has been included as a quarantine measure in the plant protection and quarantine order. The Department of Atomic Energy has set up two technology demonstration units, one for high dose irradiation at Vashi, Navi Mumbai, primarily for hygienization of spices, and another low dose irradiation facility, Krushak irradiator at Lasalgaon, near Nasik, for sprout control during storage in potato and onion and insect disinfestations of agricultural commodities. As a demonstration of the technology, 157 tons of mango were processed for export to USA following all requisite procedures. Government is encouraging private entrepreneurs and cooperatives to set up more such facilities.

[c] Yes, Sir.

[d] The research and development carried out by the Department of Atomic Energy has demonstrated a number of benefits that could be derived from irradiation in the field of food preservation. Some of these are:

- (1) Extension of shelf life of food products by killing microorganisms that cause spoilage
- (2) Enhancement of safety by killing food borne pathogens and parasites
- (3) Inhibiting sprouting in tubers, bulbs and rhizomes
- (4) Delaying ripening of fruits
- (5) Destroying insect pests in stored product and fruits

[e] During the last three years five radiation processing plants have been set up by the private sector as detailed below:

1.	Karnataka (1 Plant)	2006
2.	Haryana (1 Plant)	2005
3.	Gujarat (1 Plant)	2005
4.	Maharashtra (1 Plant)	2005
5.	West Bengal (1 Plant)	2004

[f] The Department of Atomic Energy is providing the requisite know-how and expertise for setting up of radiation processing plants in the country. Six plants are being constructed by private entrepreneurs - three each in Maharashtra and Andhra Pradesh. The Atomic Energy Regulatory Board (AERB) has given site clearance for setting up of six more plants (one each in Haryana, UP, West Bengal, Gujarat, Karnataka and Tamilnadu) by the private entrepreneurs. The department carries out and also participates in various programs conducted by organizations and bodies aimed to promote entrepreneur development and public awareness about the technology.