Treating food with Gamma rays

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With focus on quality, safe food products and the stringent measures imposed on exports by the US and European countries, the Telangana-based Gamma Agro Medical Processing (GAMP) has its hands full.

This is the only unit in Telangana and Andhra Pradesh that takes up food irradiation process with Gamma rays. Located in the export industrial promotion park, the unit treats food products by removing harmful germination inside fruits such as mango through irradiation process.

The industry procured 95 kilo curie ‘Cobalt 60 Isotope’ from Board of Radiation and Isotope Technology, a commercial wing of Baba Atomic Research Centre (BARC), Mumbai, and established it in a six-foot thick concrete chamber. Though the industry was established in 2008 with huge investment and a capacity to treat 40 tonnes of spices and food products and 10 tonnes of medical products it was unable to run to its full capacity as there was not much demand.

However, the strict norms imposed by US and European countries have changed the perspective of some of the industries that are exporting their products to these countries. The industry was promoted under Agri-Business Incubation (ABI) programme by International Crops Research institute for Semi-Arid Tropics (ICRISAT).

“The high penetration characteristics of gamma rays allow for sterilisation of a great variety of products in any size packages. The irradiator can be customised for large product volumes and speciality precision processing. The business is encouraging for the past three months. Having customers such as Priya Foods, Aurobindo, Dr. Reddy’s and Bharat Biotech among others, we are contemplating to add the source capacity from the existing 95 kilo curie to another 100 kilo curie.

The chamber that holds the isotope will have 140 slots each with a capacity 15 kilo curie maximum,” said Parameswar B. Kaginalli, promoter of the industry.

“With an increase in awareness and utility of this technology, we are supporting GAMP set up four mega plants in Hyderabad and extend its irradiation services to pulses, cereals, fruits and vegetables, meat and poultry, marine, medical and healthcare industry among others,” said, Dr. Kiran Sharma, CEO, AIP-ICRISAT.