

Food irradiation in Latin American countries

by J.G. van Kooij*

The global need to assure adequate food supplies warrants critical consideration of the use of radiation techniques to reduce post-harvest losses and various kinds of food spoilage, and to improve food hygiene by eliminating micro-organisms which are of public health concern. The World Health Organization and national public health authorities are giving considerable attention to the recognized potential of food irradiation processing to alleviate food-borne diseases, which cause serious threats to the health of people in many countries. A crucial step in the evaluation of the safety of irradiated foods was accomplished in November 1980, when a joint FAO/IAEA/WHO Expert Committee on the Wholesomeness of Irradiated Food (JECFI) concluded that foods irradiated at an overall average dose up to 10 kGy present no toxicological hazard, and recommended that they should be approved without further testing. This recommendation and other conclusions reached by JECFI prompted action, aimed at achieving international agreement on the standardization of food irradiation processing, through the Codex Alimentarius Commission**. The year 1983 was particularly noteworthy. The Codex Alimentarius Commission adopted in July 1983 the Codex General Standard for Irradiated Foods, which will be distributed to the Member States of the Commission for their acceptance. Presently available Codex provisions for the regulation of irradiated foods and information on the efficacy of applications of food irradiation processing offer competent national authorities the means to develop legislation or to revise existing rules on the use of irradiation for the preservation of foods.

It was against this background that in October 1983 the IAEA and FAO held a Seminar on Food Irradiation in Latin American countries at Lima, Peru. The seminar, which was attended by 78 scientists representing 16 countries and four organizations, served as a forum for

the exchange of information on the latest developments in technology, wholesomeness testing, legislation, applications and commercial aspects of food irradiation. The seminar devoted considerable attention to the technological and economic feasibility of using irradiation for inhibition of sprouting in potatoes and onions, extension of the shelf-life of avocados, disinfestation of fruits, and decontamination of spices and seasonings. Some Latin American countries have already cleared irradiation processing of a number of foods, which would permit market testing and commercial production of such commodities.

Significant effort is still required to strengthen national capabilities in the fields of training, research and technological development, transfer of irradiation technology, and rule making. The International Facility for Food Irradiation Technology (IFFIT) at Wageningen, The Netherlands, contributed to the training of food technologists by organizing a regional course on food irradiation prior to the seminar. The need for more deliberate use of IFFIT's training programme by scientists from countries in the region was emphasized. A good deal of interest was shown in Co-ordinated Research Programmes on Food Irradiation sponsored by the IAEA. Most countries of the region have irradiation facilities suitable for research purposes, but pilot and semi-industrial plants for food irradiation technology transfer are generally lacking. Attention was drawn to the Programme on Irradiation Technology being considered by the Andean Sub-Regional Group.

The FAO and IAEA are also trying to facilitate the practical introduction of food irradiation processing by providing regulations for the control of trade in irradiated food laid down in the Codex Standard. The Codex Co-ordinating Committee for Latin America could play a rôle in the harmonization and standardization of legislation on food irradiation in individual countries in the region.

The seminar was a focal point for discussion of the specific needs of the countries in the region with respect to the infrastructure required for food irradiation. The development of a regional project on food irradiation is of primary importance. It would contribute to a more efficient use of available resources and prevent unjustifiable duplication of research efforts in the region.

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** The Codex Alimentarius Commission was established to implement the Joint FAO/WHO Food Standards Programme. Standards, after acceptance by governments, are published in the Codex Alimentarius for use either regionally or world-wide.

