

**STATUS OF IRRADIATION PRACTICES FOR
FOOD SAFETY IN EMR-WHO**

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Almost all the Member States in the Eastern Mediterranean Region (EMR)* of WHO, spend enormous amounts of scarce foreign exchange, annually, on food imports to supplement production shortages brought about by crop failures, erratic weather patterns and unacceptable levels of post-harvest losses. The region also experiences a heavy morbidity burden from foodborne diseases. The above situation means there is great potential in the Region for the use of food irradiation in the reduction of foodborne diseases and tackling problems with food shortages.

There is presently, however, very little information on the levels and use of ionizing irradiation of food in the EMR. Available information indicate that by 1995, five countries in the region were members of the International Consultative Group on Food Irradiation, and that some limited research and commercial use of irradiated food has been going on in the Region since the second half of the 1990s. Towards the end of 1997, EMRO/CEHA initiated efforts to collect and collate information on food irradiation in the Region to enable a region wide evaluation and the development of strategies. Preliminary results of the survey is presented below.

*Afghanistan, Bahrain, Cyprus, Djibouti, Egypt, I. R. Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Pakistan, Palestine, Qatar, Somalia, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates, Yemen

Level of utilization of technology

The irradiation of food is still in its infancy in the region. Only six out of twenty three countries currently apply the technology either for

research and/or commercial purposes: Egypt, I. R. Iran, Pakistan, Morocco, Saudi Arabia and Syria. Of the six countries, three (Egypt, I.R. of Iran and Pakistan) apply food irradiation for both commercial and research purposes. Morocco, Saudi Arabia and Syria currently do so only for research purposes.

Even though Kuwait report of no irradiation of food within the country, it indicates that trial commercial marketing of irradiated food is being conducted.

Irradiation facilities used

All the six countries presently involved in food irradiation in the EMR, use gamma plants, with cobalt-60.

Legislation and regulation

The central government holds regulatory responsibility. Where commercial application is being done, governmental responsibility includes, the enforcement of food quality and safety standards, as well as workplace and process safety assurance.

In all of the six countries currently applying the technology, the irradiation facilities are either directly owned by State or para-statal organizations: that is either the ministries of energy, commerce or national atomic energy commissions/organizations. Additionally, all six countries report of existing legislation, regulations or code for food irradiation, and in all cases, ministerial approval must be received for the use of irradiation for food.

Six countries (Bahrain, Kuwait, Pakistan, Qatar, Saudi Arabia, Syria) report of established mechanisms to control the trade and marketing of irradiated food. Of the three countries presently irradiating food for commercial purposes (Egypt, I.R. of Iran and Pakistan), only Pakistan report of the existence of such a mechanism. Trade control mechanisms are being developed in I.R. of Iran. Most of the reporting countries (nine) have specifications and restrictions for imported food.

None of the countries currently use irradiation for quarantine purposes.

Seven out of the nine respondent countries report of existing general food inspection procedure which include packaging and labelling requirements specific to irradiation. There is, however, the need for assistance to strengthen inspection mechanisms, which should include

the development of regulations and codes for detailed product-specific labelling requirement, as it should enable effective product tracking.

Cost of irradiated foods

Irradiated food products cost between 5 to 10% more than non-irradiated products in the I.R. of Iran. This may probably be because of higher overhead costs due to the current limited market within the country.

Public reaction to irradiated foods

While the public acceptance of irradiated food in the EMR has not been subjected to extensive scientific studies, there are indications that a generalized public apprehension exists in the Region. Egypt, I.R. of Iran and Jordan use 'negative', 'unenthusiastic' and 'non-acceptance', respectively, in describing public attitude to irradiated foods. There are no public education programmes on irradiated foods in these countries. Kuwait reports consumer acceptance to be the same as for non-irradiated foods, even though Kuwait does not undertake in-country irradiation of food, it is involved in commercial trial marketing.

Conclusion

The use of irradiation is still at the experimental and limited commercial stages in the EMR. It is imperative that Member States are encouraged to harness the great potential of the food irradiation technology, given the current problems with food security and foodborne disease burdens.