



Feedback from the Panel on Gamma and Electron Irradiation into the Evaluation of the EU legal framework on food irradiation.

The Panel on Gamma and Electron Irradiation (www.irradiationpanel.org) is an international organization with a diverse membership who share a common interest in radiation processing. Its membership comprises both suppliers and users of irradiated products and radiation services, regulatory bodies and consultants.

The European Directives on irradiation of food and food ingredients, 1999/2/EC and 1999/3/EC came into effect in 1999, and were under development for many years prior to that. As a consequence they are out of date and do not reflect the current status and approaches to the international regulation of food irradiation. See for example the Codex Alimentarius *General Standard for Irradiated Foods* (CODEX STAN 106-1983, REV.1-2003)

The international and national scientific consensus from organizations around the world, including the WHO, the FAO and the IAEA, is that irradiated food is safe and poses no radiological, toxicological, microbiological or nutritional hazard. This process is not used as a substitute for hygiene and health practices or for good manufacturing or agricultural practice. The European Directives on irradiation of food and food ingredients with their limited and inconsistent approvals and technical constraints do not reflect this international scientific perspective.

There are particular technical and commercial concerns that are raised by the way in which the current European Directives are written which mitigate against the acceptance and adoption of food irradiation across the EU. Arguably, in their current state the Directives are ineffective, in practice they inhibit the delivery of potential benefits, and are becoming increasingly irrelevant as they fail to recognize changes in international regulations and commercial practice. The key shortcomings can be summarized as follows.

- The positive list of foods authorized for irradiation in 1999/3/EC has never been completed (as was originally intended) and as a consequence there is a limited harmonized interim positive list across Europe. As a further consequence there are extensive and highly variable national approvals that are translated into effective barriers to free trade.
- This incomplete list also has the effect of preventing the authorization of new foods that might be required by developing international relationships and agreements. As a consequence they have become a constraint on the adoption and application of food irradiation processes.
- The technologies that are approved for food irradiation within the Directives have not progressed in line with developments in radiation processing technology and as a consequence are restrictive. For example energies associated with X ray generation via electron beams do not reflect current machine efficiencies and a range of new low energy technologies is not referenced.
- The Directives require the calculation of a concept described as 'overall average dose' which is not recognized or capable of effective calculation in current radiation processing

environments. Specification of absorbed dose should be based on clear and recognized concepts.

- The developing interest and application of irradiation for phytosanitary treatments primarily concerns foods that are outside of the current harmonized list of approved foods and consequently not made available to the EU.
- The current requirement to label any food ingredient as 'irradiated' no matter how small the percentage of irradiated component in the finished product it might be, is clearly a barrier to uptake of the process. It is inconsistent with other 'de minimus' labelling approaches. It is also inconsistent in requiring the labelling of a process as opposed to a particular material.

The Panel on Gamma and Electron Irradiation believes that the current European Directives rather than facilitating trade, act as barriers to trade both within and without the EU via their restrictive technological approaches, inappropriate approaches to specifying absorbed dose, inadequate range of authorized foods and inability to reflect current developments in technology and science. Any review of the current Directives that might be undertaken should endeavour to address the issues identified in this note and to recognize the current status of food irradiation science.

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