



MX9900110

INIS-MX-133

Regulations Related to Trading of Irradiated Food in Europe Countries

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Abstract

Only recently, the European Union has prepared a new draft of a Directive to harmonize the food laws of the 15 member states with regard to food irradiation. At present 3 members have not regulated food irradiation, 4 other members have a total ban, the remaining 8 members have widely varying clearances. Members of the European Economic Area (zone of associated European states) will have to adopt such a Directive once in force. It is expected that the European Parliament soon will pass the Directive which only provides for spices irradiated up to 10 kGy. However, for a transition period of five years it will allow members states to continue with national regulations. The European Single Market should provide for free trade in any item legally marketed in any member state and, hence, for marketing irradiated food to member states which have not yet a clearance or not for that particular food.

Other European countries, ie the former members of the COMECON, have widely varying clearances; some are still in the process of renewing their respective juridical systems, and food irradiation is not a priority. For such reasons, imports of irradiated food from such countries into the EU are difficult and diverse.

The main factor causing a lack of commercial application of food irradiation and of inter-EU trade is the low interest of food industry and food trade. Consumer acceptance is of second consideration. The European Directive will fulfill the most prominent demand of consumer organization, the labelling of irradiated food with no exception, even for the most minute ingredient.

There is no reliable information about quantities of irradiated food in Europe; for official statistics it is considered not different from other food.



Introduction

Radiation processing of food by ionizing radiation is not of commercial significance in Europe; only France and The Netherlands have industrial applications worth mentioning. In contrast, the number of clearances is considerable (see Table 1), however, there is no real exploitation. For these both reasons together, consumers believe that there is a considerable amount of irradiated food in the market which is unlabelled. All countries with clearances have also regulations on labelling; but minor ingredients which usually are not mentioned on the label are not to be listed only for the reason of radiation processing. The lack of harmonization is considered a barrier to international trade and the European Union has taken steps since 1988 without much success. The new international developments, namely the WTO-agreement and the associated TBT (Technical Barriers to Trade- and SPS (Sanitary and PhytoSanitary measures)-agreements and their effects are completely ignored. Only recently, the focus of public attention has shifted towards genetically modified food where now the same discussions take place as before on irradiated food.

Regulations of EU-member states

Eight of the 15 members of the European Union (Table 1) have clearances for radiation processing of food ranging from limited individual applications (e.g. only spices) to permissions for groups or classes of food and lists of individual items. Even where the same applications are permitted the regulated radiation doses are at variance between countries. All such regulations provide for imports in general if the radiation treatment abroad was executed in accordance with the respective national provisions; no bilateral agreements exist, within the EU no longer inspections at borders are permitted and the official control of any trade is difficult.

Table 1
Food Irradiation in Europe

European Union	
Clearances	Belgium ^l , Denmark ^{SpM} , Finland ^{SpM} , <u>France</u> ^{Gl} , Italy ^l , <u>The Netherlands</u> , Spain, United Kingdom ⁺
Ban	Austria, Germany, Luxembourg, Sweden
No regulation	Greece ⁺ , Ireland ⁻ , Portugal ⁻
other than European Union	
Clearances	Croatia ^l , Hungary ^l , Norway ^{SpH} , Russian Federation ^l , Switzerland ^l , Ukraine ^l , Yugoslavia ^l

LEGEND: Clearances by

C^{group}, ^lindividual, ^{Sp}ices, ^Herbs, sterile ^Meals

⁺ equals permission, ⁻ equals ban

underlined = commercial exploitation

Four members of the EU have an absolute ban of food irradiation, but of these only Germany takes effective measures to encounter imports of irradiated food. No regulation, i.e. not mentioning in the laws, implies a ban in Ireland and Portugal; but, in the contrary, it implies a general permission in Greece.



The granting of a clearance does not imply commercial utilization. In consequence, only radiation treatment of spices in order to reduce the microbial load is a common application. In many countries also, flexible multi-purpose irradiators are not available and only high-dose processing of spices is technically feasible.

Regulations in other european countries

Also countries other than members of the European Union have clearances for food irradiation and practical applications for limited amounts, mostly spices. However, no reliable information is available on kind and quantity. Formerly, in Odessa, UdSSR, now Ukraine, the world's largest application took place: about 400,000 t annually of grain were irradiated for insect disinfestation. Today it is assumed that this facility is no longer in use.

Factors affecting trade

Europe is not different from other areas, the factors hampering trade in irradiated food are everywhere the same (Table 2). Mainly it is the fact that there is not enough quantity irradiated in order to allow for significant trade. Furthermore, it is the lack of interest from the relevant industries which refer for excuse to a supposed consumer resistance to irradiated products. As a consequence, the irradiated food items already on the market are not easily visible to the consumers and the acceptance can not be tested under practical circumstances.

Table 2
Factors affecting trade and specific problems

<i>Trade factors</i>	<ul style="list-style-type: none"> - quantities available in market - diversity of regulations/labelling - lack of interest from industry - <i>presupposed consumer resistance</i>
<i>Import/export problems</i>	<ul style="list-style-type: none"> - within European Union (Single Market implies no-borders) - across common EU-borders (ie no-borders) - mutual inspection/control (harmonization of food control systems)

A very special situation prevails in the European Union where since 1993 a 'Single Market' exists. It implies that there are no longer any borders for trade within the EU. Even the problem of different rates of value-added-tax in member states has already been overcome by administrative measures. Any goods legally marketed in one member state must have free access to all other member states. Imports from third party countries should comply with the regulations of the importing EU-member state. A harmonized regulation (see below) is not yet in force. These unresolved issues make also national food control and inspection difficult. Mutual agreements on this topic are not yet planned and the national food control systems - going to be adapted to similar and common standards - are far from harmonization. This is also true for food irradiation.

Harmonization within the European Union

Already in 1988 the Commission of the EU drafted a first directive to harmonize food laws with regard to food irradiation in member states. This draft was modified after discussion by



the European Parliament and slightly amended in 1989. However, Germany and Luxembourg of the at that time still 12 members, used their blocking minority. Only in May 1997 a new draft was adopted by the now 15 members (Table 3). It consists of a general part which is not under dispute and a 'positive list' which now provides only for spices. The intention of the anti-members like Germany is that any application other than spices shall finally become banned within all the EU. Of course, this is not acceptable to progressive countries like France and The Netherlands. For this reason a transition-period of 5 years shall be used to develop finally a 'positive list' binding all 15 member states. The general part of the draft demands a labelling of irradiated food without exception, as also regulated in the Codes Alimentarius Standard on labelling. This implies that even the most minute ingredient if processed by ionizing radiation would have to be mentioned on the label. In Europe the analytical methods for the detection of irradiated components in complex food are highly refined and with corresponding high effort and costs an enforcement of such regulations seems to become possible.

Regardless of the solution which might be found for harmonization within the EU it can be foreseen that the new draft and its associated 'positive list' are not in line with WTO-, TBT- and SPS-agreements. However, such disputes must first be brought before the WTO (cf. 'hormone meat').

Table 3
New Harmonization-Directive

(EU Council of Ministers, 21 May 1997)	
Draft consisting of	- general regulation
	- 'positive list' (only spices, 10 kGy)
	- transition period of 5 years
(national laws/regulations remain valid)	- final 'positive list' (superseding any national regulation)
	- labelling without exception

A special case in Germany

The 'Single Market' of the European Union without a harmonization of the respective food laws of the member state is in contradiction to some specific provisions. For example, Germany still can maintain the national ban on food irradiation and on marketing of food irradiated in Germany. As soon as such item is legally marketed in another EU-member state, however, the transfer (no longer borders = no import) of such irradiated items to Germany can not be prohibited. In a 'General Decree' (Table 4) Germany had to invalidate some legal provisions partially. This lead to the ridiculous situation that only spices irradiated in France may be marketed in Germany. Food inspection now has not only to detect the fact of a previous ionizing processing but also to identify the place where this took place.



Table 4
German speciality

'General Decree' 10 March 1997 (exemption according to §47a Federal Food Law)
- spices (list of items)
- only if irradiated in France
- marketed in EU or EEA member state
- intended for further commercial use
- labelling (not yet regulated) (to make clear the deviation from 'usual consumer expectations' in Germany)

Summary

As elsewhere, the legal and practical situation of processing food by ionizing radiation is diverse and diffuse in Europe. The European Union has taken the initiative to harmonize the laws of the member states with regard to food irradiation.

References

- (1) anon., *Clearance of item by country/by name, Food Irr. Newsletter 20(1996) no.2, supplement 1 & 2*
- (2) *Ehlermann, D.A.E., Current status of food irradiation in Europe, in: Thorne, S. (ed.), Food Irradiation, Elsevier Applied Science, London, 1991*