Report from the Commission on food irradiation for the year 2007

(2009/C 242/02)

1. LEGAL BASIS AND BACKGROUND

Article 7(3) of Directive 1999/2/EC of the European Parliament and of the Council of 22 February 1999 on the approximation of the laws of the Member States concerning foods and food ingredients treated with ionising radiation [1] requires the Member States to forward to the Commission every year:

— the results of checks carried out in irradiation facilities, in particular regarding the categories and quantities of food and food ingredients treated and the doses administered,

and

— the results of checks carried out at the product marketing stage and the methods used to detect treatment with ionising radiation.

Article 7(4) of the same Directive imposes on the Commission to publish in the *Official Journal of the European Communities*:

— the details of the approved irradiation facilities in the Member States as well as any changes in their status,

— a report on the information provided by the national supervisory authorities.

The current report covers the period from 1 January 2007 to 31 December 2007. It contains a compilation of the information forwarded to the Commission by 25 Member States.

Information on general aspects of food irradiation is available on the website of the European Commission's Directorate-General for Health and Consumer [2].

1.1. Irradiation facilities

According to Article 3(2) of Directive 1999/2/EC, food and food ingredients may be irradiated only in approved irradiation facilities. For facilities in the EU, approval is given by the competent authorities of the Member States. The Member States have to inform the Commission of their approved irradiation facilities (Article 7(1)).

Irradiation of food and food ingredients may only be carried out by means of the following sources:

— Gamma rays from radionuclides ^{60}Co or ^{137}Cs,

— X-rays generated from machine sources operated at or below a nominal energy (maximum quantum energy) level of 5 MeV,

— Electrons generated from machine sources operated at or below a nominal energy (maximum quantum energy) level of 10 MeV.

The list of approved irradiation facilities in the Member States has been published by the Commission [3] in the *Official Journal of the European Union* and can be found at http://ec.europa.eu/food/food/biosafety/irradiation/approved_facilities_en.pdf

[1] OJ L 66, 13.3.1999, p. 16.
[2] http://ec.europa.eu/food/food/biosafety/irradiation/index_en.htm
[3] OJ C 187, 7.8.2003, p. 13.

1.2. **Irradiated food and food ingredients**

The irradiation of dried aromatic herbs, spices and vegetable seasonings is authorised in the EU at Community level (Directive 1999/3/EC of the European Parliament and of the Council of 22 February 1999 on the establishment of a Community list of food and food ingredients treated with ionising radiation ([1])).

In addition, seven Member States have notified that they maintain national authorisations for certain food and food ingredients in accordance with Article 4(4) of Directive 1999/2/EC. The list of national authorisations has been published by the Commission ([2]).

Any irradiated foodstuff and foodstuff or compound food containing one or more irradiated food ingredient must be labelled with the words 'irradiated' or 'treated with ionising radiation'. In the case of products sold in bulk, these words shall appear together with the name of the product on a display or notice above or beside the container in which the products are placed.

To enforce correct labelling or to detect non-authorised products, several analytical methods have been standardised by the European Committee for Standardisation (CEN), following a mandate given by the European Commission.

2. **RESULTS OF CHECKS CARRIED OUT IN IRRADIATION FACILITIES**

This section of the report deals with the results of the checks carried out in irradiation facilities, in particular regarding the categories and quantities of products treated and the doses administered.

The Member States submitted the following information on approved facilities and checks carried out in those facilities.

2.1. **Belgium**

Inspections by the competent authorities in 2007 confirmed the compliance of the irradiation facility Sterigenics SA with the requirements of Directive 1999/2/EC.

The following table shows the categories and quantities of products irradiated in this facility in 2007.

Category of products	Treated quantity (t)	Average absorbed dose (kGy)
Frog legs	1 521	5
Meat	445	6-8
Poultry	282	5
Fish and shellfish	258	3-5
Herbs and spices	139	6-9
Dehydrated blood	16	6-9
Vegetables	12	6
Starch	11	3
Eggs powder	7	3
Others	108	0-10
Total	2 799	

([1]) OJ L 66, 13.3.1999, p. 24.
([2]) OJ C 112, 12.5.2006, p. 6.

2.2. **Bulgaria**

No information has been forwarded by Bulgaria.

2.3. **Czech Republic**

Inspections by the competent authorities in 2007 confirmed the compliance of the irradiation facility Artim Spol SRO with the requirements of Directive 1999/2/EC.

The following table shows the categories and quantities of products irradiated in this facility in 2007.

Category of products	Treated quantity (t)	Average absorbed dose (kGy)
Dried aromatic herbs, spices and vegetable seasonings	55	1-10
Total	55	

2.4. **Germany**

During the reporting period, there were four approved irradiation facilities in Germany. Inspections by the competent authorities in 2007 confirmed the compliance of the irradiation facilities with the requirements of Directive 1999/2/EC.

The following tables show the categories and quantities of products irradiated in 2007 for each facility. In total 331 tonnes of products were treated in three irradiation facilities in Germany in 2007.

(a) *Gamma Service Produktbestrahlung GmbH, Radeberg*

Category of products	Treated quantity (t)	Average absorbed dose (kGy)
Spices and herbs	206	< 10
Dried vegetables	24	< 10
Total	230	

121 ton of the irradiated products were exported to third countries.

(b) *BGS/Beta-Gamma Service GmbH & Co. KG, Wiehl*

Category of products	Treated quantity (t)	Average absorbed dose (kGy)
Spices and herbs	21	10-13
Dried vegetables	18	10-32
Total	39	

All irradiated products were exported to third countries.

(c) *Isotron Deutschland GmbH, Allershausen*

Category of products	Treated quantity (t)	Average absorbed dose (kGy)
Vegetables	61	5-10
Spices and herbs	1	5-10
Total	62	

All irradiated products were exported to third countries.

(d) *Beta-Gamma-Service Gmbh & Co. KG, Bruchsal*

No products were irradiated in this facility in 2007.

2.5. **Spain**

In Spain, there are two facilities approved for the irradiation of food and food ingredients. Inspections by the competent authorities in 2007 confirmed the compliance of the irradiation facilities with the requirements of Directive 1999/2/EC.

(a) *Ionmed Esterilización, SA*

The following table shows the categories and quantities of products irradiated in this facility in 2007.

Category of products	Treated quantity (t)	Average absorbed dose (kGy)
Dried aromatic herbs, spices and vegetable seasonings	216	< 10
Total	216	

(b) *Aragogamma, SA*

No products were irradiated in this facility in 2007.

2.6. **France**

In France, six facilities are approved for the irradiation of foods. Inspections by the competent authorities in 2007 confirmed the compliance of five irradiation facilities with the requirements of Directive 1999/2/EC. One facility was given comments concerning the control of the irradiation doses and the status of the products before and after treatment.

The facility of Ionisos SA, Domaine de Corbeville, 91400 Orsay, (reference 91471 F) did not irradiate food and food ingredients during 2007. This facility has been closed.

The following table shows the categories and quantities of products irradiated in the facilities in 2007.

Category of products	Treated quantity (t)	Average absorbed dose (kGy)
Poultry	1 239	5
Frozen frog legs	687	5
Gum arabic	131	3
Herbs, spices and dried vegetables	60	10
Casein	22	6
Total	2 139	

2.7. **Hungary**

In Hungary, there is one facility approved for the irradiation of foods. According to the official inspection made by the competent authority (Hungarian Agricultural Office) in 2007 the irradiation facility AGROSTER Besugárzó Rt. (Budapest, Jászberényi út 5.) was in compliance with the requirements of Directive 1999/2/EC.

The following table shows the categories and quantities of foods irradiated in this facility in 2007.

Category of products	Treated quantity (t)	Average absorbed dose (kGy)
Spices, spice peppers	5,9	4-6
Dehydrated products	0,5	3-4
Herbs	14,5	3-6
Total	20,9	

2.8. **Italy**

The only approved irradiation facility in Italy, Gammarad Italia Spa, was inspected with favourable outcome. During 2007, no food and food ingredients have been irradiated in this irradiation facility.

2.9. **The Netherlands**

The competent authorities confirmed the compliance of the irradiation facilities with the requirements of Directive 1999/2/EC in 2007.

From 1 January 2007 until 31 December 2007, Isotron NL treated a total of 2 323 tonnes of food and food ingredients in their two facilities in the cities of Ede and Etten-Leur. The following tables show the categories and quantities of products irradiated in these two facilities in 2007.

(a) *Isotron NL — irradiation facility in Ede*

Category of products	Treated quantity (t)	Average absorbed dose (kGy)
Spices/Herbs	753	NI
Frog legs	197	NI
Poultry meat (frozen)	154	NI
Dehydrated vegetables	88	NI
Egg white	70	NI
Shrimps (frozen)	45	NI
Food Samples	10	NI
Total	1 317	

(NI: no information forwarded on this point).

(b) *Isotron NL — irradiation facility in Etten-Leur*

Category of products	Treated quantity (t)	Average absorbed dose (kGy)
Dried vegetables	791	NI
Frog legs	146	NI
Spices/Herbs	48	NI
Poultry meat (frozen)	21	NI
Total	1 006	

(NI: no information forwarded on this point).

2.10. **Poland**

In Poland, there are two approved irradiation facilities. The following table show the category and quantity of foods irradiated in 2007 in one facility.

(a) *Institute of Nuclear Chemistry and Technology, Warsaw*

Category of products	Treated quantity (t)	Average absorbed dose (kGy)
Dry spices, dried flavoured herbs, vegetable spices	269	7-10
Total	269	

(b) *Institute of Applied Radiation Chemistry, Technical University of Lodz*

No information has been forwarded regarding this irradiation facility.

2.11. **Portugal**

No information has been forwarded by Portugal.

2.12. **Romania**

In Romania there is only one approved irradiation facility which is IRASM Center from Horia Hulubei National Institute of Physics and Nuclear Engineering. The source of ionising radiation is Gamma rays ^{60}Co. The facility is authorised by National Commission for Nuclear Activities. The IRASM facility did not irradiate any food/food ingredient during 2007.

2.13. **The United Kingdom**

In the United Kingdom, there is one facility approved for the irradiation of foods. The facility did not irradiate any food under the terms of its licence in 2007.

2.14. **Summarising table for the EU**

The following table summarises the quantities of foodstuffs (in tonnes) treated by ionising radiation in approved irradiation facilities within the European Union.

Category of products	BE	CZ	DE	ES	FR	HU	NL	PL	Total	%
Casein	0	0	0	0	22	0	0	0	22	*0,27*
Dehydrated blood	16	0	0	0	0	0	0	0	16	*0,20*
Egg powder	7	0	0	0	0	0	0	0	7	*0,09*
Egg white	0	0	0	0	0	0	70	0	70	*0,86*
Fish & Shellfish	258	0	0	0	0	0	45	0	303	*3,72*
Food Samples	0	0	0	0	0	0	10	0	10	*0,12*
Frog legs/parts	1 521	0	0	0	687	0	343	0	2 551	*31,29*
Gum arabic	0	0	0	0	131	0	0	0	131	*1,61*
Herbs, Spices	139	55	228	216	60	21	801	269	1 789	*21,94*
Meat	445	0	0	0	0	0	0	0	445	*5,46*
Poultry	282	0	0	0	1 239	0	175	0	1 696	*20,80*
Starch	11	0	0	0	0	0	0	0	11	*0,13*
Vegetables	12	0	103	0	0	0	879	0	994	*12,19*
Other	108	0	0	0	0	1	0	0	109	*1,34*
Total	2 799	55	331	216	2 139	22	2 323	269	8 154	
% of total	*34,33*	*0,67*	*4,06*	*2,65*	*26,23*	*0,27*	*28,49*	*3,30*	*100,00*	

3. RESULTS OF CHECKS CARRIED OUT AT THE PRODUCT MARKETING STAGE AND THE METHODS USED TO DETECT TREATMENT WITH IONISING RADIATION

Regarding the results of the checks carried out at the product marketing stage and the methods used to detect treatment with ionising radiation, the Member States submitted the following information.

3.1. **Austria**

In total, 115 samples were analysed. In none of these samples treatment with ionising radiation could be demonstrated.

Food analysed	Number of samples: 115			CEN method used
	Compliant	Inconclusive	Non-compliant	
Herbs & Spices	39	0	0	EN 1788, EN 13751
Herbal teas	38	0	0	EN 1788, EN 13751
Poultry	38	0	0	EN 1786
Total	115	0	0	
Total in % of analysed samples	100,00 %	00,00 %	00,00 %	

3.2. **Belgium**

In total, 89 samples were analysed. One sample was found to be irradiated.

Food analysed	Number of samples: 89			CEN method used
	Compliant	Inconclusive	Non-compliant	
Instant noodles	21	0	1	EN 1788 (*)
Crustaceans and molluscs	15	0	0	
Frozen herbs	15	0	0	
Shrimps	15	0	0	
Dried vegetables	11	0	0	
Fruit	11	0	0	
Total	88	0	1	
Total in % of analysed samples	98,88 %	00,00 %	1,12 %	

(*) Thermoluminescence derived from EN 1788 is used to detect irradiation.

3.3. **Bulgaria**

No information on checks regarding food irradiation has been forwarded by Bulgaria for 2007.

3.4. **Cyprus**

No analytical checks regarding food irradiation were performed in 2007.

3.5. **Czech Republic**

In total, 60 samples were analysed. Two samples were found to be non-compliant (positive for irradiation and incorrectly labelled).

Food analysed	Number of samples: 60			CEN method used
	Compliant	Inconclusive	Non-compliant	
Fresh fruits	15	0	0	EN 1788/EN 1785
Spices	12	0	0	EN 1788
Food supplements	8	0	1	EN 1788

Food analysed	Number of samples: 60			CEN method used
	Compliant	Inconclusive	Non-compliant	
Fish and shellfish	7	0	0	EN 1785
Herbal tea products	5	0	0	EN 1788
Instant noodles	3	0	1	EN 1788/EN 1785
Poultry	6	0	0	EN 1785
Shrimps	2	0	0	EN 1785
Total	58	0	2	
Total in % of analysed samples	96,67 %	00,00 %	3,33 %	

3.6. **Germany**

In total 3 744 food samples were examined of which 77 were irradiated. Two samples were irradiated and compliant with the EU Directives: one sample belonging to the category 'Spices and herbs' and one sample belonging to the category 'Soups, sauces, instant noodles'. The remaining 75 irradiated samples were non-compliant:

— twenty-one samples belong to categories for which irradiation is authorised but showed non-compliant labelling,

— thirty-four samples belong to categories for which irradiation is not authorised,

— twenty samples (mostly noodles and dried soups) were irradiated, however it could not be determined which of the ingredients in these compound foods were irradiated in order to find out if the irradiation is authorised.

The categories with the highest percentages of non-compliant samples were food supplements, (16 %) and soups and sauces (11 %).

Food analysed	Number of samples: 3744			CEN method used
	Compliant	Inconclusive	Non-compliant	
Spices and herbs	1 022	0	2	EN 1787, EN 1788, EN 13751
Teas, tea-like products	328	3	0	EN 1787, EN 1788, EN 13751
Seasoning	288	0	2	EN 1787, EN 1788, EN 13751
Soups, sauces, instant noodles	239	12	17	EN 1787, EN 1788, EN 13751
Crustaceans, shellfish, other aquatic animals including their products	180	1	2	EN 1786, EN 1788, EN 13751 (*)
Fresh fruits	174	0	2	EN 1784, EN 1787, EN 1788, EN 13751
Pulses, nuts & oil seeds	162	0	0	EN 1784, EN 1787, EN 1788, EN 13751
Mushrooms, dried or mushroom products	149	0	5	EN 1787, EN 1788, EN 13751
Food supplements	147	4	23	EN 1786, EN 1787, EN 1788, EN 13751
Dried fruits or fruit products	134	0	0	EN 1788, EN 13708 (*)
Fish & fisheries products	130	0	0	EN 1786, EN 1788

Food analysed	Number of samples: 3744			CEN method used
	Compliant	Inconclusive	Non-compliant	
Cereals and cereal products	93	0	0	EN 1787, EN 1788, EN 13751
Dried vegetables, vegetable products	88	0	0	EN 1787, EN 1788, EN 13751 (*)
Poultry	75	0	0	EN 1784, EN 1786, EN 1788
Ready-to-serve meals	72	0	1	EN 1786, EN 1788, EN 13751
Sausages	67	0	0	EN 1784, EN 1786, EN 1787, EN 1788
Fresh vegetables	52	0	0	EN 1787, EN 1788, EN 13751
Mushrooms, fresh	47	0	0	EN 1787, EN 1788, EN 13751
Cheese with herbs	46	0	0	EN 1787, EN 1788
Potatoes, parts of plants with high content of starch	42	0	0	EN 1787, EN 1788, EN 13751
Meat products (ex. sausages)	41	0	0	EN 1784, EN 1786
Meat (except poultry, game)	15	0	1	EN 1786
Cheese without herbs	12	0	0	(*)
Butter with herbs	10	0	0	EN 1787, EN 1788
Cacao	10	0	0	EN 1787
Eggs & egg products	9	0	0	EN 1784, EN 1785
Milk/milk products	8	0	0	EN 1787
Coffee	1	0	0	EN 13751
Other	28	0	0	EN 1787, EN 1788
Total	3 669	20	55	
Total in % of analysed samples	98,00%	0,53 %	1,47 %	

(*) Other methods (e.g. electron paramagnetic resonance) are also used to detect irradiation.

3.7. **Denmark**

In 2007 no analytical controls were carried out regarding food irradiation at the marketing stage.

Danish undertakings are, however, obliged to carry out own-checks to ensure that the rules are complied with. The Danish Veterinary and Food Administration have verified these self-monitoring activities through documentary checks.

3.8. **Estonia**

No analytical checks regarding food irradiation were performed in 2007.

In 2007 no analytical controls were carried out regarding food irradiation at the marketing stage in Estonia.

3.9. **Greece**

In total, 92 samples were analysed, none of which tested positive for irradiation.

Food analysed	Number of samples: 92			CEN method used
	Compliant	Inconclusive	Non-compliant	
Herbs and spices	81	0	0	EN 13751 (PPSL)
Cacao	8	0	0	EN 13751 (PPSL)
Cereals	2	0	0	EN 13751 (PPSL)
Dried soup	1	0	0	EN 13751 (PPSL)
Total	92	0	0	
Total in % of analysed samples	100,00 %	00,00 %	00,00 %	

3.10. **Spain**

In total, 130 samples were analysed, tree of which tested positive for irradiation. All non-compliant samples were frog legs.

Food analysed	Number of samples: 130			CEN method used
	Compliant	Inconclusive	Non-compliant	
Herbs and spices	88	0	0	EN 1787, EN 1788
Dried fruits	25	0	0	EN 1786, EN 13708
Fish, crustaceans and other aquatic animals	9	0	3	EN 1786
Vegetables	5	0	0	EN 1787, EN 1788
Total	127	0	3	
Total in % of analysed samples	97,70 %	00,00 %	2,30 %	

3.11. **Finland**

Altogether 94 samples were analysed. Five samples tested positive and were not labelled.

None positive samples were adequately labelled and the irradiation facilities had no EU approval.

Food analysed	Number of samples: 94			CEN method used
	Compliant	Inconclusive	Non-compliant	
Dried spices and herbs	73	0	1	EN 1788, EN 13751
Food supplements	17	0	4	EN 1788, EN 13751
Berries	4	0	0	EN 1788
Total	89	0	5	
Total in % of analysed samples	94,68 %	00,00 %	5,32 %	

3.12. **France**

In total, 117 samples of food were analysed and six samples tested positive for irradiation and were not correctly labelled.

Food analysed	Number of samples: 117			CEN method used
	Compliant	Inconclusive	Non-compliant	
Dried fruits	19	0	0	EN 1788
Potatoes	12	0	0	EN 1788
Dehydrated soups and sauces	11	0	0	EN 1788
Vegetables	10	0	0	EN 1788
Instant noodles	9	0	3	EN 1788
Nuts	9	0	0	EN 1788
Shellfish	7	0	1	EN 1788
Chestnuts	6	0	0	EN 1788
Mechanically recovered poultry meat	6	0	0	EN 1788
Frozen frog legs	5	0	2	EN 1788
Tea	5	0	0	EN 1788
Cereal flakes for dairy products	4	0	0	EN 1788
Ginger	4	0	0	EN 1788
Dried fish	2	0	0	EN 1788
Spices	2	0	0	EN 1788
Total	111	0	6	
Total in % of analysed samples	94,87 %	00,00 %	5,13 %	

3.13. **Hungary**

In total, 139 samples were analysed and one sample tested positive for irradiation.

Food analysed	Number of samples: 139			CEN method used
	Compliant	Inconclusive	Non-compliant	
Spices	49	10	0	EN 1788
Tea	43	2	1 (*)	
Food supplements	26	8	0	
Total	118	20	1	
Total in % of analysed samples	84,89 %	14,39 %	0,72 %	

(*) The sample of tea positive for irradiation was labelled as such, however irradiation of tea is not authorised in Hungary.

3.14. **Ireland**

Analysis of 580 food samples in 2007 identified 21 foods that had been irradiated but were not carrying the required labelling.

Food analysed	Number of samples: 580			CEN method used
	Compliant	Inconclusive	Non-compliant	
Herbs & spices	217	0	5	EN 13751 (screening), EN 1788 (confirmation)
Coffees & teas	115	0	0	
Noodles	66	0	4	
Fruit & vegetables	42	0	2	
Sauces & soups	25	0	0	
Seasonings & Stocks	22	0	2	
Goji berry products	14	0	4	
Seeds	13	0	0	
Food supplements	12	0	1	
Cereals & bakery products	7	0	1	
Miscellaneous	26	0	2	
Total	559	0	21	
Total in % of analysed samples	96,38 %	00,00 %	3,62 %	

3.15. **Italy**

105 samples were analysed. None of these samples were found to be irradiated. The results were inconclusive in 11 cases.

Food analysed	Number of samples: 105			CEN method used
	Compliant	Inconclusive	Non-compliant	
Spices, aromatic herbs & vegetable extracts	79	11	0	EN 13783, EN 1788
Bulb vegetables	7	0	0	EN 13783
Dried fruits	2	0	0	EN 13783
Miscellaneous fruits	2	0	0	EN 13783
Mixtures of herbs	2	0	0	EN 13783
Nuts	2	0	0	EN 13783
Total	94	11	0	
Total in % of analysed samples	89,52 %	10,48 %	0,00 %	

3.16. **Latvia**

Two samples have been taken; both samples were found compliant with EU legislation.

Food analysed	Number of samples: 2			CEN method used
	Compliant	Inconclusive	Non-compliant	
Dry soup for fast preparation	1	0	0	EN 1788
Herbal tea	1	0	0	
Total	2	0	0	
Total in % of analysed samples	100,00 %	0,00 %	0,00 %	

3.17. **Lithuania**

89 samples were tested, all samples were compliant.

Food analysed	Number of samples: 89			CEN method used
	Compliant	Inconclusive	Non-compliant	
Dry aromatic herbs, samples of tea, samples of spices	89	0	0	EN 13783:2004
Total	89	0	0	
Total in % of analysed samples	100,00 %	00,00 %	00,00 %	

3.18. **Luxembourg**

In total, 20 samples of food supplements were analysed. Six samples were found to be irradiated. The results were inconclusive in six cases.

Food analysed	Number of samples: 20			CEN method used
	Compliant	Inconclusive	Non-compliant	
Food supplements	8	6	6	EN 1788
Total	8	6	6	
Total in % of analysed samples	40,00 %	30,00 %	30,00 %	

3.19. **Malta**

In total, 25 samples of herbs and spices were analysed. Twenty-one samples were found to be irradiated but were not labelled as such.

Food analysed	Number of samples: 25			CEN method used
	Compliant	Inconclusive	Non-compliant	
Herbs & Spices	4	0	21	EN 13751
Total	4	0	21	
Total in % of analysed samples	16,00 %	0,00 %	84,00 %	

3.20. **The Netherlands**

In 2007, 416 samples were taken and analysed. 33 samples proved to be irradiated. Three of the irradiated samples, all dietary supplements, were correctly labelled as such.

Food analysed	Number of samples: 416			CEN method used
	Compliant	Inconclusive	Non-compliant	
Food supplements	201	0	29	EN 1788, EN 13751
Herbs and spices	185	0	1	EN 1788, EN 13751
Total	386	0	30	
Total in % of analysed samples	92,79 %	00,00 %	7,21 %	

3.21. **Poland**

In total, 150 samples were analysed and one of these tested positive for irradiation and was not correctly labelled.

Food analysed	Number of samples: 150			CEN method used
	Compliant	Inconclusive	Non-compliant	
Dried herbs, spices and vegetable seasonings	66	0	0	EN 1786, EN 1787, EN 1788, EN 13751
Nuts including peanuts	25	0	0	EN 1786, EN 1787, EN 1788
Vegetables	20	0	1	EN 1786, EN 1787, EN 1788
Fruits	19	0	0	EN 1786, EN 1787, EN 1788
Fish and shellfish	13	0	0	EN 1786, EN 1787, EN 1788
Poultry and poultry products, egg and egg products	7	0	0	EN 1786, EN 1787, EN 1788
Total	149	0	1	
Total in % of analysed samples	99,33 %	00,00 %	0,67 %	

3.22. **Portugal**

No information has been forwarded by Portugal.

3.23. **Romania**

In 2007 documentary checks (including labelling) of foodstuffs (dried aromatic herbs, spices and vegetable seasonings) were performed in 2014 retail shops. All controlled foodstuffs were not labelled as irradiated. No analytical checks regarding food irradiation were performed in 2007.

3.24. **Sweden**

During the year 2007, a total six samples were analysed: meat from bison, ptarmigan, frog, crocodile, and two different kind of cheese. The method used to analyse irradiated food is according to EN 1784. None of the samples were irradiated.

Food analysed	Number of samples: 6			CEN method used
	Compliant	Inconclusive	Non-compliant	
Meat	4	0	0	EN 1784
Cheese	2	0	0	EN 1784
Total	6	0	0	
Total in % of analysed samples	100,00 %	00,00 %	00,00 %	

3.25. **Slovak Republic**

In total, 41 samples were analysed during 2007 in the Slovak republic, none of which tested positive for irradiation.

Food analysed	Number of samples: 41			CEN method used
	Compliant	Inconclusive	Non-compliant	
Peanuts & other nuts	25	0	0	EN 1784
Cheese	12	0	0	EN 1784
Meat (chicken, duck)	3	0	0	EN 1784

Food analysed	Number of samples: 41			CEN method used
	Compliant	Inconclusive	Non-compliant	
Poppy seed	1	0	0	EN 1784
Total	41	0	0	
Total in % of analysed samples	100,00 %	00,00 %	00,00 %	

3.26. **Slovenia**

Twenty samples were checked for ionising radiation treatment. None of the samples were irradiated.

Food analysed	Number of samples: 20			CEN method used
	Compliant	Inconclusive	Non-compliant	
Spices	10	0	0	EN 13751
Food supplements	10	0	0	EN 1788, EN 13751
Total	20	0	0	
Total in % of analysed samples	100,00 %	00,00 %	00,00 %	

3.27. **The United Kingdom**

In 2007, 407 products were sampled. A number of these products were analysed as separate components (e.g. noodles and their accompanying seasoning sachet) and each part treated as an individual sample. Therefore, a total of 429 samples were analysed, of which 48 were found to be irradiated. The samples reported as 'inconclusive' were identified as intermediate using CEN method EN 13751:2002 and were not analysed further; or were samples of 'low sensitivity' such that the mineral grain fraction of the samples was insufficient to carry out accurate analysis.

Food analysed	Number of products sampled: 407 Number of analysed samples: 429			CEN method used
	Compliant	Inconclusive	Non-compliant	
Dried herbs, spices and vegetable seasonings	163	18	6	EN 13751, EN 1778
Food supplements	83	7	31	EN 13751, EN 1778
Noodles and dehydrated Asian meals	30	2	4	EN 13751, EN 1778
Fresh and preserved (other than dried) herbs and spices	27	0	0	EN 13751, EN 1778
Fruit (including fresh and dried)	23	0	1	EN 13751, EN 1778
Teas	14	0	3	EN 13751, EN 1778
Mushrooms	7	0	0	EN 13751
Fish/seafood (dried shrimps)	2	0	0	EN 13751
Sauces (liquid/frozen)	2	0	0	EN 13751
Dried meat	1	0	0	EN 13751
Honey and other bee products	1	0	3	EN 13751, EN 1778
Vegetables (dried onions)	1	0	0	EN 13751
Total	354	27	48	
Total in % of analysed samples	82,52 %	6,29 %	11,19 %	

3.28. **Summary for the EU**

The following table summarises the samples analysed and the results obtained for the EU as a whole:

Member State	Compliant samples	Inconclusive	Non-compliant samples	Total samples	% versus EU total samples
AT	115	0	0	115	1,78
BE	88	0	1	89	1,38
BG	NI	NI	NI	NI	NI
CY	NAC	NAC	NAC	NAC	NAC
CZ	58	0	2	60	0,93
DE	3 669	20	55	3 744	57,93
DK	NAC	NAC	NAC	NAC	NAC
EE	NAC	NAC	NAC	NAC	NAC
EL	92	0	0	92	1,42
ES	127	0	3	130	2,01
FI	89	0	5	94	1,45
FR	111	0	6	117	1,81
HU	118	20	1	139	2,15
IE	559	0	21	580	8,97
IT	94	11	0	105	1,62
LV	2	0	0	2	0,03
LT	89	0	0	89	1,38
LU	8	6	6	20	0,31
MT	4	0	21	25	0,39
NL	383	0	33	416	6,44
PL	149	0	1	150	2,32
PT	NI	NI	NI	NI	NI
RO	NAC	NAC	NAC	NAC	NAC
SE	6	0	0	6	0,09
SK	41	0	0	41	0,63
SI	20	0	0	20	0,31
UK	354	27	48	429	6,64
TOTAL EU	6 176	84	203	6 463	
IN %	95,56	1,30	3,14		

NI: No information has been forwarded by the Member State.
NAC: No analytical checks were performed in 2007.

4. SUMMARY

The current report covers the period from 1 January 2007 to 31 December 2007. It contains a compilation of the information forwarded to the Commission by 25 Member States.

Based on the information received, 22 approved irradiation facilities were operational in 11 Member States in accordance with Article 7(2) of Directive 1999/2/EC. One approved irradiation facility has been closed. No new irradiation facilities were approved during 2007, but one irradiation facility was added to the list due to the accession of Romania and Bulgaria. Six irradiation facilities did not irradiate any food or food ingredients during 2007; information on one irradiation facility was not forwarded.

During 2007, a total quantity of 8 154 tonnes of products was treated with ionising irradiation in 16 approved irradiation facilities in eight Member States. 89,29 % were irradiated in three Member States: Belgium (34,33 %), the Netherlands (28,49 %) and France (26,23 %). The three biggest fractions within the irradiated categories were frog legs (31,29 %), herbs & spices (21,94 %) and poultry (20,80 %).

Regarding the checks carried out at the product marketing stage, 25 out of 27 Member States submitted information. Four Member States performed no analytical checks in official control and inspection. One of these Member States signalled that under its national legislation food business operator should carry out own checks to ensure that rules on food irradiation are complied with.

A total of 6 463 samples were taken by 21 Member States. 6 176 samples (95,56 %) were compliant with the provisions of the Directives. 203 samples (3,14 %) were non-compliant. Reasons for non-compliance most often related to incorrect labelling and irradiation of categories for which this is not authorised. Eighty-four samples (1,30 %) gave inconclusive results. This mainly occurred in mixtures of ingredients where it sometimes impossible to determine which of the ingredients were irradiated in order to find out if the irradiation was authorised.