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REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

ON FOOD AND FOOD INGREDIENTS TREATED WITH IONISING RADIATION FOR THE YEAR 2011

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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 radiation¹, requires 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 Directive requires the Commission to publish in the *Official Journal of the European Union*

- 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 2011 to 31 December 2011. It contains a compilation of the information forwarded to the Commission by 25 Member States. Bulgaria and Malta did not submit any data.

Information on general aspects of food irradiation is available on the website of the European Commission's Directorate-General for Health and Consumer².

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. Article 7(3) requires Member States to inform the Commission on their approved irradiation facilities.

OJ L 66, 13.3.1999, p. 16.

1

2

http://ec.europa.eu/food/food/biosafety/irradiation/index_en.htm

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

- Gamma rays from radionuclides ⁶⁰Co or ¹³⁷Cs;
- 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 Commission³.

1.2. Irradiated food and food ingredients

The irradiation of dried aromatic herbs, spices and vegetable seasonings is authorised at EU level by 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 radiation⁴. In addition, 7 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 Commission⁵.

Any irradiated foodstuff containing one or more irradiated food ingredient must be labelled with the words "irradiated" or "treated with ionising radiation". If an irradiated product is used as an ingredient in a compound food, the same words shall accompany its designation in the list of ingredients. 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. According to the information submitted by the Member States, the controls carried out by the competent authorities confirmed the compliance of the approved irradiation facilities with the requirements of Directive 1999/2/EC.

³ OJ C 265, 1.9.2012, p. 3.

⁴ OJ L 66, 13.3.1999, p. 24.

⁵ OJ C 283, 24.11.2009, p. 5.

The following tables show the categories and quantities of products irradiated in approved facilities in the EU Member States in 2011.

2.1. Belgium

| Category of products | Treated quantity (t) | Average absorbed dose (kGy) |
|---|-------------------------|--------------------------------|
| Dried aromatic herbs, spices and vegetable seasonings | 238,129 | 6 - 9 |
| Frozen frog legs | 3050,944 | 5 |
| Poultry | 1378,752 | 5 |
| Fish, shellfish & molluscs | 153,122 | 3 - 5 |
| Dehydrated blood, plasma and coagulates | 84,1 | 6 – 9 |
| Vegetables | 4,86 | 3-5 |
| Rice meal | 44,25 | 3 |
| Egg white | 32,805 | 3 |
| Gum arabic | 2,1 | 3 |
| Colostrum (for veterinary research only) | 41,887 | 0 - 10 |
| Total | 5030,949 | |

There is one facility approved.

2.2. Bulgaria

There are two facilities approved. No data was submitted for 2011.

2.3. Czech Republic

There is one facility approved.

| Category of products | Treated quantity (t) | Average absorbed dose (kGy) | | |
|---|-------------------------|--------------------------------|--|--|
| Dried aromatic herbs, spices and vegetable seasonings | 24,2 | 4-10 | | |
| Total | 24,2 | | | |

2.4. Germany

There are four facilities approved. No food was irradiated in two of these facilities.

| Category of products | Treated quantity (t) | Average absorbed dose (kGy) | | |
|---|-------------------------|--------------------------------|--|--|
| Dried aromatic herbs, spices and vegetable seasonings | 152 | <10 | | |
| Total | 152 | | | |

2.5. Spain

There are two facilities approved. No food was irradiated in one of these facilities.

| Category of products | Treated quantity (t) | Average absorbed dose (kGy) |
|---|-------------------------|--------------------------------|
| Dried aromatic herbs, spices and vegetable seasonings | 307,546 | <10 |
| Total | 307,546 | |

2.6. Estonia

There is one facility approved.

| Category of products | Treated quantity (t) | Average absorbed dose (kGy) |
|---|-------------------------|--------------------------------|
| Dried aromatic herbs, spices and vegetable seasonings | 19,2 | 10 |
| Total | 19,2 | |

2.7. France

There are five facilities approved.

| Category of products | Treated quantity (t) | Average absorbed dose (kGy) |
|---|-------------------------|--------------------------------|
| Poultry | 114,418 | 5 |
| Gum Arabic | 69,198 | 3 |
| Dried aromatic herbs, spices and vegetable seasonings | 0,66 | 10 |
| Frozen frog legs | 510,625 | 5 |
| Total | 694,901 | |

2.8. Hungary

There is one facility approved.

| Category of products | Treated quantity (t) | Average absorbed dose (kGy) |
|---|-------------------------|-----------------------------|
| Dried aromatic herbs, spices and vegetable seasonings | 142 | 3-8 |
| Total | 142 | |

2.9. Italy

There is one facility approved. No food was irradiated in 2011.

2.10. The Netherlands

There are two facilities approved.

| Category of products | 0. | |
|---|----------|---------|
| Dried aromatic herbs, spices and vegetable seasonings | 199,585 | 6.4-7.3 |
| Frog parts | 352,611 | 4 |
| Poultry meat | 111,955 | 5 |
| Dehydrated vegetables | 446,802 | 2-4 |
| Egg white | 421,982 | 1.3 |
| Shrimps (frozen) | 38,478 | 3 |
| Total | 1572,878 | |

2.11. Poland

There are two approved facilities.

| Category of products | Treated quantity (t) | Average absorbed dose (kGy) |
|---|-------------------------|-----------------------------|
| Dried aromatic herbs, spices and vegetable seasonings | 105,8 | 5-10 |
| Total | 105,8 | |

2.12. Romania

There is one approved facility.

| Category of products | Treated quantity (t) | Average absorbed dose (kGy) |
|---|-------------------------|-----------------------------|
| Dried aromatic herbs, spices and vegetable seasonings | 20 | 8 |
| Total | 20 | |

2.13. The United Kingdom

There is one approved facility. No food was irradiated in 2011.

2.14. Other Member States

There are no approved facilities in the other Member States (Austria, Cyprus, Denmark, Finland, Greece, Ireland, Luxembourg, Lithuania, Latvia, Malta, Portugal, Sweden, Slovenia, Slovakia).

2.15. Summary 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 in 2011:

| Category of products | BE | CZ | DE | EE | ES | FR | HU | NL | PL | RO | Total | % |
|--------------------------------|--------|------|------|------|-------|-------|------|--------|-------|------|--------|--------------|
| Dehydrated blood | 84,1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84,1 | 1,04 |
| Egg white | 32,8 | 0 | 0 | 0 | 0 | 0 | 0 | 422 | 0 | 0 | 454,8 | 5,64 |
| Fish, Shellfish, Shrimps | 153,1 | 0 | 0 | 0 | 0 | 0 | 0 | 38,5 | 0 | 0 | 191,6 | 2,37 |
| Frog legs | 3050,9 | 0 | 0 | 0 | 0 | 510,6 | 0 | 352,6 | 0 | 0 | 3914,1 | 48,52 |
| Gum arabic | 2,1 | 0 | 0 | 0 | 0 | 69,2 | 0 | 0 | 0 | 0 | 71,3 | 0,88 |
| Herbs and spices | 238,1 | 24,2 | 152 | 19,2 | 307,5 | 0,6 | 142 | 199,6 | 105,8 | 20 | 1208,9 | <i>14,98</i> |
| Poultry | 1378,7 | 0 | 0 | 0 | 0 | 114,4 | 0 | 111,9 | 0 | 0 | 1605,0 | 19,89 |
| Rice meal | 44,2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44,2 | 0,55 |
| Vegetables | 4,8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,8 | 0,06 |
| Dehydrated products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 446,8 | 0 | 0 | 446,8 | 5,54 |
| Other | 41,9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41,9 | 0,52 |
| Total | 5030,7 | 24,2 | 152 | 19,2 | 307,5 | 694,8 | 142 | 1571,4 | 105,8 | 20 | 8067,5 | 100 |
| % of total | 62,36 | 0,30 | 1,88 | 0,24 | 3,81 | 8,61 | 1,76 | 19,48 | 1,31 | 0,25 | 100 | |

3. RESULTS OF CHECKS CARRIED OUT AT THE PRODUCT MARKETING STAGE AND THE METHODS USED TO DETECT IRRADIATED FOODS

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

| | Nu | mber of samples: | | |
|--------------------------------|-----------|------------------------|----|-------------------|
| Food analysed | Compliant | Compliant Inconclusive | | CEN method used |
| Herbs and spices | 44 | 0 | 0 | EN 1788, EN 13751 |
| Herbal teas | 39 | 0 | 0 | EN 1788, EN 13751 |
| Poultry meat | 43 | 0 | 0 | EN 1786 |
| Total | 126 | 0 | 0 | |
| Total in % of analysed samples | 100 % | 0% | 0% | |

3.1. Austria

3.2. Belgium

| | Nu | Number of samples: 123 | | |
|--------------------------------|-----------|------------------------|-------------------|-----------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Fruit | 8 | 0 | 0 | EN 1788 |
| Food supplements | 19 | 0 | 2* | |
| Noodles | 26 | 0 | 0 | |
| Vegetables | 12 | 0 | 0 | |
| Herbs | 13 | 0 | 0 | |
| Crustaceans | 21 | 0 | 0 | |
| Molluscs | 22 | | | |
| Total | 121 | 0 | 2 | |
| Total in % of analysed samples | 98,4 % | 0 % | 1,6 % | |

* irradiation not allowed

3.3. Bulgaria

No data was submitted for 2011.

3.4. Cyprus

| | N | CEN method used | | |
|------------------------------------|-----------|-----------------|-------------------|----------|
| Food analysed | Compliant | Inconclusive | Non- compliant | |
| Dried vegetables, herbs and spices | 6 | 0 | 0 | EN 13751 |
| Total | 6 | 0 | 0 | |
| Total in % of analysed samples | 100 % | 0 % | 0 % | |

3.5. Czech Republic

| Food analysed | Ni | umber of samples: | 40 | |
|--------------------------------|-----------|-------------------|-------------------|------------------|
| | Compliant | Inconclusive | Non- compliant | CEN method used |
| Fish and shellfish | 1 | 1 | 0 | EN 1785 |
| Herbal tea products | 11 | 0 | 0 | EN 1788 |
| Spices | 8 | 4 | 0 | EN 1788 |
| Dietary supplements | 1 | 0 | 0 | EN 1788 |
| Instant noodle soups | 3 | 0 | 0 | EN 1788 |
| Poultry | 3 | 0 | 0 | EN 1785 |
| Fresh fruit | 3 | 2 | 0 | EN 1788, EN 1785 |
| Dried mushrooms | 3 | 0 | 0 | EN 1788 |
| Total | 33 | 7 | 0 | |
| Total in % of analysed samples | 82,5 % | 17,5 % | 0% | |

3.6. Germany

| | Nur | nber of samples: | 2.912 | |
|--|-----------|------------------|-------------------|---|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Cheese, cheese preparations with herbs and spices | 37 | 0 | 0 | EN 1787, EN 1788, ASU§64 LFGB, L00.00- 39 |
| Cheese, cheese preparations without herbs and spices | 33 | 0 | 0 | EN 1788, EN 1784, ASU§64 LFGB, L00.00- 39 |
| Seasoned butter | 5 | 0 | 0 | EN 1787 |
| Eggs and egg products | 4 | 0 | 0 | EN 1784 |
| Meat (excl. poultry and game) | 4 | 0 | 0 | EN 1786 |
| Poultry | 92 | 0 | 0 | EN 1784, EN 1786 |
| Meat products (excl. Saussage products) | 46 | 0 | 0 | EN 1786, EN 1784, EN 1788 |
| Sausage products | 47 | 0 | 0 | EN 1786, EN 1784 |
| Fish and fish products | 44 | 0 | 4* | EN 1786, EN 1788, EN 1789 |

| Total in % of analysed samples | 97,83% | 0,58% | 1,58% | |
|---|--------|-------|-----------|--|
| Total | 2.849 | 17 | 46 | |
| Enzymes | 4 | 0 | 0 | EN 1788, EN 13751 |
| Others | 98 | 1 | 0 | EN 1788, EN 13751, EN 13708 |
| Dried herbs and spices | 1084 | 10 | 7** | EN 1788, EN 1787, EN 13751, Thermoluminescence |
| Seasonings and condiments | 183 | 1 | 3** | EN 1788, EN 13751, EN 1787, Thermoluminescence |
| Food supplements | 121 | 0 | 12* | EN 1788, EN 1787, EN 13751, Thermoluminescence |
| Ready meals and dishes | 9 | 0 | 0 | EN 1788, EN 1786, EN 13751 |
| Tea, tea-like products | 211 | 0 | 0 | EN 1788, EN 13751, EN 1787 |
| Coffee | 2 | 0 | 0 | EN 1788, EN 13751 |
| Dried fruit and fruit products | 49 | 0 | 0 | EN 1787, EN 1788, EN 13708 |
| Fresh fruit | 65 | 0 | 0 | EN 1784, EN 1788, EN 1787, EN 13751, EN 1385 |
| Dried mushrooms or mushrooms products | 142 | 0 | 6* | EN 1788, EN 13751, EN 1787 |
| Fresh mushrooms | 11 | 0 | 0 | EN 1788 |
| Dried vegetables | 40 | 0 | 0 | EN 1788, EN 1787, EN 13751 |
| Fresh vegetables | 17 | 0 | 0 | EN 1788, EN 1787, EN 13751 |
| Potatoes, parts of starch-rich plants | 26 | 0 | 0 | EN 1788, EN 13751 |
| Pulses, oil seeds, nuts | 44 | 0 | 0 | EN 1787, EN 1788, EN 13751 |
| Cereals and ceral products | 44 | 0 | 3** | EN 1787, EN 1788, EN 13751 |
| Soups, sauces, including instant soups and meals | 239 | 5 | 2* 5** | EN 1787, EN 1788, EN 13751 |
| Crustaceans, shellfish, mussels and other aquatic animals including their products | 148 | 0 | 2* 2** | EN 1788, EN 1786, EN 1787, EN 1384, EN 13751, ASU§64 LFGB,L12.01-1, |

* irradiation not allowed; ** not correctly labelled

3.7. Denmark

| | N | umber of samples | | |
|--------------------------------|-----------|------------------|-------------------|-------------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Dietary supplements | 23 | 0 | 3* | EN 13751, EN 1788 |
| Herbs and spices | 42 | 0 | 0 | EN 13751, EN 1788 |
| Herbal tea | 3 | 0 | 0 | EN 13751, EN 1788 |
| Dried instant noodles | 16 | 0 | 3* | EN 13751, EN 1788 |
| Soups and sauces | 8 | 0 | 0 | EN 13751, EN 1788 |
| Total | 92 | 0 | 6 | |
| Total in % of analysed samples | 94 % | 0 % | 6 % | |

* irradiation not allowed

3.8. Estonia

In 2011 no checks were carried out at the product marketing stage. There is no laboratory in Estonia carrying out analyses for ionising radiation. Due to the limited financial resources, samples were not sent abroad for analysis.

3.9. Greece

| | N | | | |
|--------------------------------|-----------|--------------|-------------------|-----------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Spices | 9 | 0 | 0 | EN 13751 |
| Tea | 9 | 0 | 0 | EN 13751 |
| Herbs | 2 | 0 | 0 | EN 13751 |
| Total | 20 | 0 | 0 | |
| Total in % of analysed samples | 100% | 0% | 0% | |

3.10. Spain

| | Nu | mber of samples: | | |
|--------------------------------|-----------|------------------|-------------------|-------------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Herbs and spices | 156 | 5 | 1** | EN 1787, EN 13751 |
| Infusions | 18 | 0 | 0 | EN 13751 |
| Dried fruits | 13 | 0 | 0 | EN 13708, EN 1787 |
| Molluscs | 8 | 0 | 0 | EN 1786 |
| Meat | 7 | 0 | 0 | EN 1786 |
| Total | 202 | 5 | 1 | |
| Total in % of analysed samples | 97,12 % | 2,4 % | 0,48 % | |

** not correctly labelled

3.11. Finland

| | Nu | mber of samples: | | |
|---|-----------|------------------|-------------------|-------------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Dried spices and herbs | 95 | 0 | 2 | EN 13751, EN 1788 |
| Food supplements, foods for special dietary use | 35 | 0 | 3 | EN 13751, EN 1788 |
| Fruit, berries, vegetables | 11 | 0 | 0 | EN 13751, EN 1788 |
| Tea and herbal preparations | 20 | 0 | 1 | EN 13751, EN 1788 |
| Other preparations | 24 | 0 | 2 | |
| Total | 185 | 0 | 8** | |
| Total in % of analysed samples | 95,8 % | 0 % | 4,2 % | |

** not correctly labelled or from facilities without EU approval

3.12. France

| | Nu | mber of samples: | les: 112 | | |
|--|-----------|------------------|-------------------|------------------|--|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used | |
| Herbs and spices | 18 | 1 | 0 | EN 1784, EN 1788 | |
| Frozen crustaceans or molluscs | 13 | 0 | 0 | EN 1784, EN 1788 | |
| Dehydrated soups and sauces | 9 | 0 | 3** | EN 1784, EN 1788 | |
| Food supplements | 10 | 4 | 2* | EN 1784, EN 1788 | |
| Frogg legs | 4 | 0 | 0 | EN 1784, EN 1788 | |
| Lamb | 3 | 0 | 0 | EN 1784, EN 1788 | |
| Poultry | 11 | 0 | 0 | EN 1784, EN 1788 | |
| Pre-cooked noodles | 1 | 1 | 0 | EN 1784, EN 1788 | |
| Tea | 13 | 0 | 0 | EN 1784, EN 1788 | |
| Dehydrated fruit, vegetables, mushrooms | 18 | 1 | 0 | EN 1784, EN 1788 | |
| Total | 100 | 7 | 5 | | |
| Total in % of analysed samples | 89,3% | 6,2% | 4,5% | | |

* irradiation not allowed; ** not correctly labelled

3.13. Hungary

| | N | umber of samples | | |
|--------------------------------|-----------|------------------|-------------------|-----------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Spices | 60 | 0 | 0 | EN 1788 |
| Tea | 18 | 0 | 0 | EN 1788 |
| Total | 78 | 0 | 0 | |
| Total in % of analysed samples | 100% | 0 % | 0 % | |

3.14. Ireland

| | Nu | mber of samples | | |
|--------------------------------|-----------|-----------------|-------------------|------------------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Spices | 13 | 0 | 0 | EN 13751 (screening), |
| Herbs and spices | 26 | 0 | 0 | EN 1788 (confirmation) |
| Seasonings | 6 | 0 | 0 | |
| Seeds | 8 | 0 | 0 | |
| Pasta | 2 | 0 | 0 | |
| Noodles | 7 | 0 | 0 | |
| Teas | 48 | 0 | 0 | |
| Total | 110 | 0 | 0 | |
| Total in % of analysed samples | 100% | 0 % | 0 % | |

3.15. Italy

| | Nu | umber of samples: | | |
|--------------------------------|-----------|-------------------|-------------------|---|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Fish, molluscs, crostaceans | 144 | 0 | 10 | EN 13784, EN 1786, EN 1788, EN 13751 |
| Herbs and spices | 90 | 0 | 1 | EN 13783, EN13751, EN 1787, EN 1788 |
| Meat | 67 | 0 | 0 | EN 1786, EN 13784, EN 13751 |
| Garlic and onions | 27 | 0 | 0 | EN 1788, EN 13751, EN 1787, EN 13783 |
| Potatoes | 19 | 0 | 0 | EN 1788, EN 13751, EN 1787, EN 13783 |
| Dried mushrooms | 11 | 0 | 0 | EN 13708, EN13751 |
| Vegetable seasonings | 9 | 0 | 0 | EN 1787, EN 13783 |
| Nuts | 8 | 0 | 0 | EN 1787, EN 13708 |
| Dried fruit | 8 | 0 | 0 | EN 1787, EN 13708 |
| Frog legs | 7 | 0 | 5 | EN 1786, EN 1785 |
| Fresh fruit | 6 | 0 | 0 | EN 1787, EN 1788, EN 13708 |
| Vegetable extracts | 4 | 0 | 0 | EN 13751 |
| Food supplements | 3 | 0 | 0 | EN 13751 |
| Wheat | 1 | 0 | 0 | EN 1787 |
| Vegetables | 1 | 0 | 0 | EN 1788 |
| Green tea | 1 | 0 | 0 | EN 13751 |
| Bakery products | 1 | 0 | 0 | EN 1787 |
| Total | 407 | 0 | 16** | |
| Total in % of analysed samples | 98,95 % | 0 % | 1,05 % | |

** not correctly labelled

3.16. Latvia

| | Ν | umber of samples | : 42 | |
|--------------------------------|-----------|------------------|-------------------|------------------------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| | | | | MI 2143-91 VNIIMS |
| Mushrooms (salted, frozen) | 13 | 0 | 0 | SDP 5.4.4R.01:2010 |
| | 10 | | U U | SSI- Rapport 93-11(Sr 90) |
| Food supplements | 2 | 0 | 5* | EN 1788 |
| Dried herbs and spices | 4 | 0 | 0 | EN 1788 |
| Fish and crustaceans | 10 | 0 | 0 | MI 2143-91 VNIIMS |
| Fish and crustaceans | | | | SDP 5.4.4R.01:2010 |
| Garlic | 1 | 0 | 0 | EN 1788 |
| Soy sauce | 2 | 0 | 0 | MI 2143-91 VNIIMS |
| Pomello | 1 | 0 | 0 | MI 2143-91 VNIIMS |
| | | | | MI 2143-91 VNIIMS |
| Mineral water | 3 | 0 | 0 | SSI- Rapport 93-11(Sr 90) |
| Total | 37 | 0 | 5 | |
| Total in % of analysed samples | 88 % | 0 % | 12 % | |

* irradiation not allowed

3.17. Lithuania

| | N | umber of samples | | |
|--------------------------------|-----------|------------------|-------------------|-----------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Food supplements | 23 | 0 | 0 | EN 13783 |
| Herbs and spices | 16 | 0 | 0 | EN 13783 |
| Tea | 34 | 0 | 0 | EN 1378 |
| Dried vegetables | 17 | 0 | 0 | EN 1378 |
| Total | 90 | 0 | 0 | |
| Total in % of analysed samples | 100% | 0 % | 0 % | |

3.18. Luxembourg

| | N | umber of samples | | |
|--------------------------------|-----------|------------------|-------------------|-----------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Food supplements | 5 | 0 | 5* | EN 1788 |
| Noodles | 10 | 0 | 0 | EN 1788 |
| Total | 15 | 0 | 5 | |
| Total in % of analysed samples | 75% | 0% | 25% | |

* irradiation not allowed

3.19. Malta

No data was submitted for 2011.

3.20. The Netherlands

| | Number of samples: 303 | | | |
|---|------------------------|--------------|-------------------|-----------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Cereal products | 26 | 2 | 0 | EN 13751 |
| Dried vegetables and vegetable products | 28 | 0 | 0 | EN 13751 |
| Dried fruit and fruit products | 40 | 0 | 0 | EN 13751 |
| Nuts and seeds | 40 | 0 | 0 | EN 13751 |
| Fish and fish products | 26 | 0 | 0 | EN 13751 |
| Salads, pasta and soup | 31 | 3 | 0 | EN 13751 |
| Spices/flavours | 98 | 9 | 0 | EN 13751 |
| Total | 289 | 14 | 0 | |
| Total in % of analysed samples | 95,4% | 4,6 % | 0% | |

3.21. Poland

| | N | umber of samples: | 229 | |
|---|-----------|-------------------|-------------------|-------------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Dried herbs and spices | 75 | 0 | 1 | EN 13751, EN 1788 |
| Nuts | 21 | 0 | 0 | EN 1787 |
| Vegetables (including pulses) | 14 | 0 | 0 | EN 1788 |
| Fruits | 20 | 0 | 0 | EN 1784, EN 1787 |
| Fish and sea food | 22 | 0 | 0 | EN 1786, EN 1788 |
| Teas | 9 | 0 | 0 | EN 13751 |
| Ripened cheeses, cottage cheeses, other cheeses containing spices/herbs | 10 | 0 | 0 | EN 1788 |
| Pre-prepared meals | 15 | 0 | 1 | EN 1788 |
| Meat, offal, meat products | 16 | 0 | 0 | EN 1786, EN 1784 |
| Food supplements | 12 | 0 | 2 | EN 13751, EN 1788 |
| Food for particular nutritional uses | 6 | 0 | 0 | EN 1788 |
| Total | 225 | 0 | 4** | |
| Total in % of analysed samples | 98,25 % | 0 % | 1,75 % | |

** not correctly labelled

3.22. Portugal

| | Number of samples: 12 | | | |
|--------------------------------------|-----------------------|--------------|-------------------|--|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Herbs, spices and vegetable extracts | 12 | 0 | 0 | PSL technique (Photostimulated Luminescence) |
| Total | 12 | 0 | 0 | |
| Total in % of analysed samples | 100% | 0 % | 0 % | |

3.23. Romania

| | Number of samples: 79 | | | |
|--|-----------------------|--------------|-------------------|-------------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Dried aromatic herbs, spices and vegatable seasonings | 78 | 0 | 1*** | EN 1787, EN 13751 |
| Total | 78 | 0 | 1 | |
| Total in % of analysed samples | 98,7 % | 0 % | 1,3% | |

*** irradiated in a facility without EU approval

3.24. Sweden

| | Ň | umber of samples | | |
|-------------------------------------|-----------|------------------|-------------------|-----------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Poultry meat (from different birds) | 5 | 0 | 0 | EN 1784 |
| Total | 5 | 0 | 0 | |
| Total in % of analysed samples | 100% | 0 % | 0 % | |

3.25. Slovak Republic

| | Ni | | | |
|--------------------------------|-----------|--------------|-------------------|-----------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Nuts | 10 | 0 | 0 | EN 1784 |
| Oil seeds | 3 | 0 | 0 | EN 1784 |
| Tuna in oil, crushed | 1 | 0 | 0 | EN 1784 |
| Biscuits and cereal bars | 3 | 0 | 0 | EN 1788 |
| Meat product | 1 | 0 | 0 | EN 1784 |
| Total | 18 | 0 | 0 | |
| Total in % of analysed samples | 100% | 0 % | 0 % | |

3.26. Slovenia

| | Nu | umber of samples: 2 | | |
|--------------------------------|-----------|---------------------|-------------------|-------------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Spices | 8 | 0 | 0 | EN 13751, EN 1788 |
| Food supplements | 4 | 1 | 0 | EN 13751, EN 1788 |
| Garlic | 4 | 0 | 0 | EN 13751, EN 1788 |
| Rice | 1 | 2 | 0 | EN 13751, EN 1788 |
| Total | 17 | 3 | 0 | |
| Total in % of analysed samples | 85 % | 15 % | 0 % | |

3.27. United Kingdom

| | Nu | mber of samples: 1 | 30 | |
|---|-----------|--------------------|-------------------|------------------|
| Food analysed | Compliant | Inconclusive | Non- compliant | CEN method used |
| Dried herbs, spices and vegetable seasonings | 51 | 2 | 2 | EN13751, EN 1788 |
| Fresh and preserved (other than dried) herbs and spices | 14 | 0 | 0 | EN13751, EN 1788 |
| Miscellaneous | 5 | 0 | 0 | EN13751, EN 1788 |
| Noodles and dehydrated Asian meals | 10 | 2 | 2 | EN13751, EN 1788 |
| Vegetables | 1 | 0 | 0 | EN13751, EN 1788 |
| Soups and sauces | 11 | 1 | 1 | EN13751, EN 1788 |
| Food supplements | 17 | 2 | 1 | EN13751, EN 1788 |
| Dried fish and seafood | 8 | 0 | 0 | EN13751, EN 1788 |
| Total | 117 | 7 | 6** | |
| Total in % of analysed samples | 90,00 % | 5,4 % | 4,6 % | |

** not correctly labelled and no evidence provided as to irradiation carried out in an approved facility

3.28. Summary for the EU

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

| Member State | COMPLIANT SAMPLES | Inconclusive | NON COMPLIANT SAMPLES | TOTAL SAMPLES | % versus EU Total samples |
|-----------------|----------------------|--------------|-----------------------------|------------------|---------------------------------|
| AT | 126 | 0 | 0 | 126 | 2,3% |
| BE | 121 | 0 | 2 | 123 | 2,2% |
| BG | NDS | NDS | NDS | NDS | |
| CY | 6 | 0 | 0 | 6 | 0,1% |
| CZ | 33 | 7 | 0 | 40 | 0,7% |
| DE | 2849 | 17 | 46 | 2912 | 54,0% |
| DK | 92 | 0 | 6 | 98 | 1,8% |
| EE | NAC | NAC | NAC | NAC | |
| EL | 20 | 0 | 0 | 20 | 0,4% |
| ES | 202 | 5 | 1 | 208 | 3,8% |
| FI | 185 | 0 | 8 | 193 | 3,5% |
| FR | 100 | 7 | 5 | 112 | 2,0% |
| HU | 78 | 0 | 0 | 78 | 1,4% |
| IE | 110 | 0 | 0 | 110 | 2,0% |
| IT | 407 | 0 | 16 | 423 | 7,8% |
| LV | 37 | 0 | 5 | 42 | 0,8% |
| LT | 90 | 0 | 0 | 90 | 1,7% |
| LU | 15 | 0 | 5 | 20 | 0,4% |
| MT | NDS | NDS | NDS | NDS | |
| NL | 289 | 14 | 0 | 303 | 5,6% |
| PL | 225 | 0 | 4 | 229 | 4,2% |
| РТ | 12 | 0 | 0 | 12 | 0,2% |
| RO | 78 | 0 | 1 | 79 | 1,5% |
| SE | 5 | 0 | 0 | 5 | 0,1% |
| SK | 18 | 0 | 0 | 18 | 0,3% |
| SI | 17 | 3 | 0 | 20 | 0,4% |
| UK | 117 | 7 | 6 | 130 | 2,4% |
| TOTAL EU | 5232 | 60 | 105 | 5397 | 100% |
| | 97% | 1% | 2% | 100% | |

NDS: No data submitted NAC: No analysis carried out

4. SUMMARY

The current report covers the period from 1 January 2011 to 31 December 2011. It contains a compilation of the information forwarded to the Commission by 25 Member States. Bulgaria and Malta did not submit any data.

In 2011, 24 approved irradiation facilities were operational in 13 Member States in accordance with Article 7(2) of Directive 1999/2/EC. No new irradiation facilities have been approved. No approved irradiation facilities have been closed. Five irradiation facilities did not irradiate any food during 2011 (no data was submitted for the two facilities in Bulgaria).

A total quantity of 8.067,5 tonnes of products were treated with ionising irradiation in the Member States, 90,45 % of which were irradiated in three Member States: Belgium (62,36%), the Netherlands (19,48%) and France (8,61%). The three biggest fractions within the irradiated categories are frog legs (48,52%), poultry (19,89%) and dried aromatic herbs and spices (14,98%).

There has been a slight decrease in the total quantity of products irradiated in the EU compared to 2010 (9.263,4 tonnes). In France, there was a significant reduction in the quantity of dried aromatic herbs, spices and vegetable seasonings as well as in the quantity of poultry meat treated with ionising radiation: 65% and 75% respectively. In the Netherlands, there was a 2,85% increase in the total quantity of products treated with ionising radiation, mainly due to a sharp increase of the quantity of egg whites irradiated in 2011.

25 Member States submitted information regarding the checks carried out at the product marketing stage. One Member State did not perform any analytical checks in official control and inspection due to the fact that it does not have laboratories to carry out the analysis and that sending samples to be analysed abroad would be too expensive.

A total of 5.397 samples have been analysed by 24 Member States, three Member States accounted for 67,4% of the samples (Germany 54%, Italy 7,8%, and the Netherlands 5,6%). 5.232 samples (97%) were compliant with the provisions of the Directives, 105 samples (2%) were non-compliant, 60 samples (1%) gave inconclusive results. Reasons for inconclusive results are most often related to non-confirmation after positive results from screening tests and/or to the difficulty to determine which of the ingredients were irradiated, even if they are labelled, in composed foodstuffs. The two main reasons for non-compliance of tested samples are incorrect labelling and forbidden irradiation; non-compliance is also due to irradiation in facilities not approved by the EU. Reasons for non-compliance are given in each table reporting the tests carried out in each Member State.