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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 years 2018-2019

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SUMMARY

According to Article 7(3) of Directive 1999/2/EC of the European Parliament and of the Council of 22 February 1999¹ on the approximation of the laws of the Member States concerning foods and food ingredients treated with ionising radiation, the Member States shall forward to the Commission every year:

- the results of checks carried out in ionising irradiation facilities, including the categories and quantities of foodstuff treated with ionising radiation and the doses administered, and
- the results of checks carried out at product marketing stage.

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 every year by the national supervisory authorities.

This report covers the period from 1 January 2018 to 31 December 2019. It contains a compilation of the information sent to the Commission by 28 Member States and one EFTA country (Norway) in 2018, and 27 Member States and no EFTA country in 2019. One Member State (Latvia) did not submit any data for the year 2019.

Period:	1/1/2018 – 31/12/2019
Countries concerned:	EU Member States and EFTA countries
Source:	28 Member States and Norway

Irradiation facilities:

- Number of countries equipped: 14 Member States & Norway
- Number of approved facilities: 24
- Number of closed facilities: 0
- Number of countries irradiating: 10 Member States

Treatment data:

- Quantity of products treated: 7 832 tonnes (-23.3% compared to 2016-2017)
- Main commodities treated: ‘Frog legs’ (65.1%), ‘Poultry’ (20.6%) and ‘Dried aromatic herbs, spices and vegetables seasoning’ (14.0%)
- Main place of irradiation: Belgium (81.4%)

Checks at marketing stage:

- Number of samples analysed: 9 808
- Number of non compliant samples: 83 (1%)
- Main commodities analysed: ‘Herbs and spices’ (39%) and ‘Cereals, seed, vegetables, fruits and their products’ (24%)

¹ 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 (OJ L 066 13.3.1999, p. 16).

1 BACKGROUND

Food irradiation is the treatment of foodstuffs by a certain type of radiant energy known as ionising radiation. Radiant energy has differing wavelengths and degrees of power and disappears when the energy source is removed. Irradiation is used for sanitary and phytosanitary purposes to kill bacteria (such as Salmonella, Campylobacter and E. coli) that can cause food poisoning and to eliminate organisms harmful to plant or plant products such as insects and other pests. It is also used to delay fruit ripening, to stop vegetables (such as onions and potatoes) from sprouting or germination, and ultimately to extend the shelf life of foods. Irradiation of food cannot replace proper food handling. Irradiated foods still require appropriate refrigeration and cooking prior to consumption when necessary.

The EU regulatory framework for irradiation of food ('food irradiation directives') consists of:

- Directive 1999/2/EC (framework Directive) 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. It lays down specific provisions for the manufacturing, marketing and importation of treated foods and food ingredients.
- Directive 1999/3/EC (implementing Directive) of the European Parliament and of the Council of 22 February 1999 on the establishment of a Community list of foods and food ingredients treated with ionising radiation². This list currently includes one category of food: dried aromatic herbs, spices and vegetable seasonings. The list of national authorisations of food and food ingredients which may be treated with ionising radiation is published by the Commission in the Official Journal of the European Union.

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) of Directive 1999/2/EC requires Member States to inform the Commission of the list of their approved irradiation facilities.

The list of approved irradiation facilities in Member States is published by the Commission in the Official Journal of the European Union.

Under Article 6 of Directive 1999/2/EC, any irradiated food or any irradiated food ingredient of a compound food must be labelled with the words 'irradiated' or 'treated with ionising radiation'.

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 APPROVED IRRADIATION FACILITIES

At the end of the report period (31 December 2019), there were 24 approved irradiation facilities in the EU, which were located in 14 Member States: France (5), Germany (4), Bulgaria (2), the Netherlands (2), Spain (2), Belgium (1), Czech Republic (1), Croatia (1), Estonia (1), Italy (1), Hungary (1), Poland (1), Romania (1), and United Kingdom (1).

Of those 14 Member States equipped with irradiation facilities, four did not irradiate any foodstuffs over the 2018-2019 period: Bulgaria, Italy, Romania and the United Kingdom.

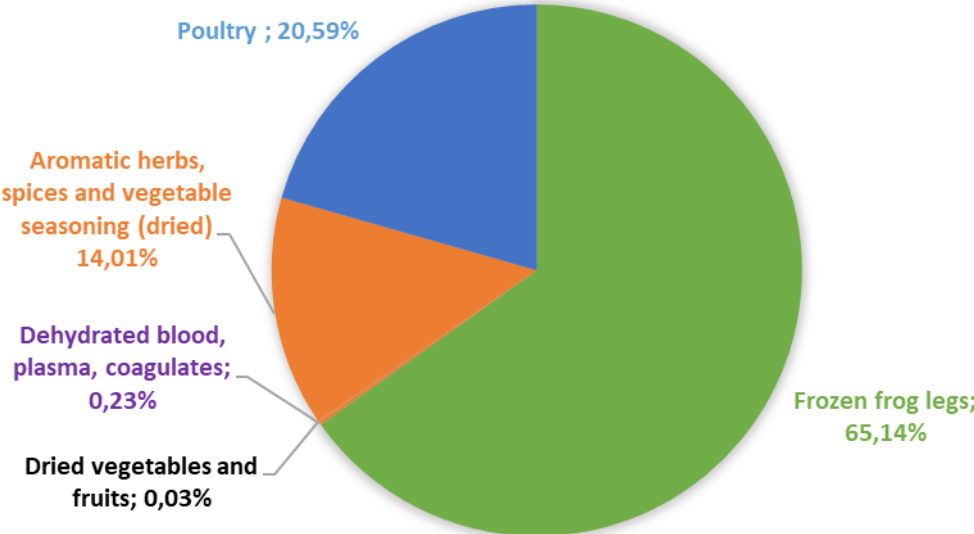
² OJ L 66, 13.3.1999, p. 24.

3 RESULTS OF CHECKS CARRIED OUT IN IRRADIATION FACILITIES IN 2018-2019

A total quantity of 7 832 tonnes of products were treated with ionising irradiation in EU Member States during the years 2018 and 2019. The treatment took place mainly in Belgium, which treated 81.4% of the irradiated food of the EU.

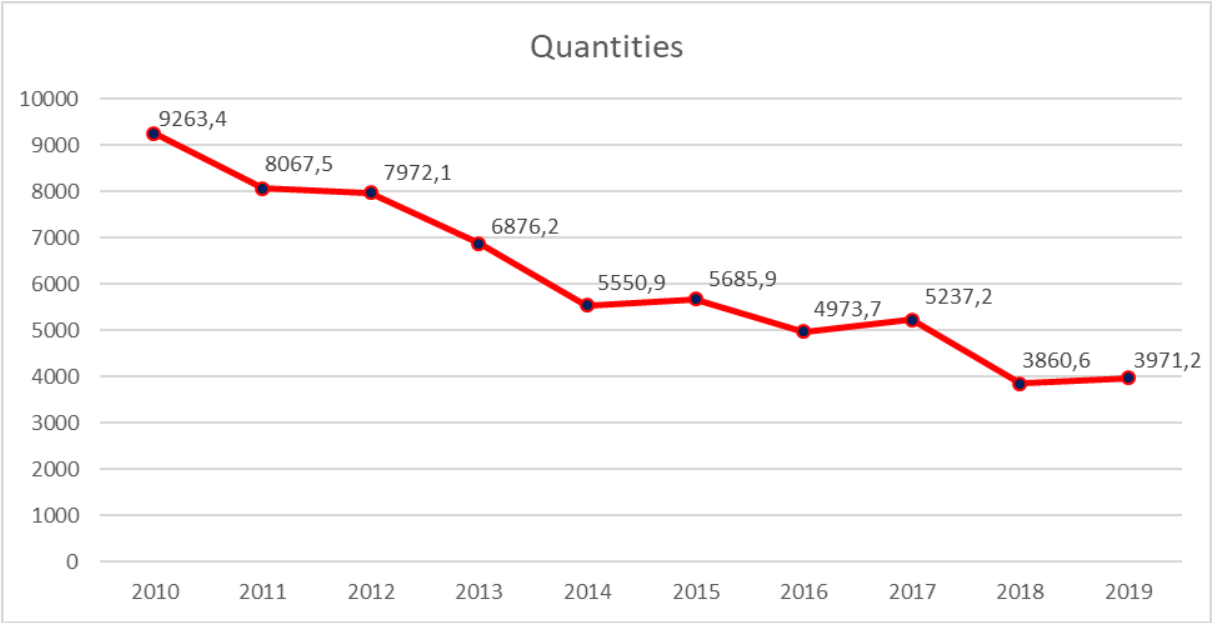
The three main commodities irradiated in the EU are frog legs (65.1%), poultry (20.6%) and dried aromatic herbs, spices and vegetables seasoning (14.0%). Figure 1 shows the distribution of products irradiated in approved facilities in the Union Member States in 2018 and 2019.

Figure 1 – Distribution by category of irradiated foodstuffs in the EU in 2018-2019



The quantities of foodstuffs (in tonnes) treated by ionising radiation in the EU are decreasing since 2010 as shown in Figure 2.

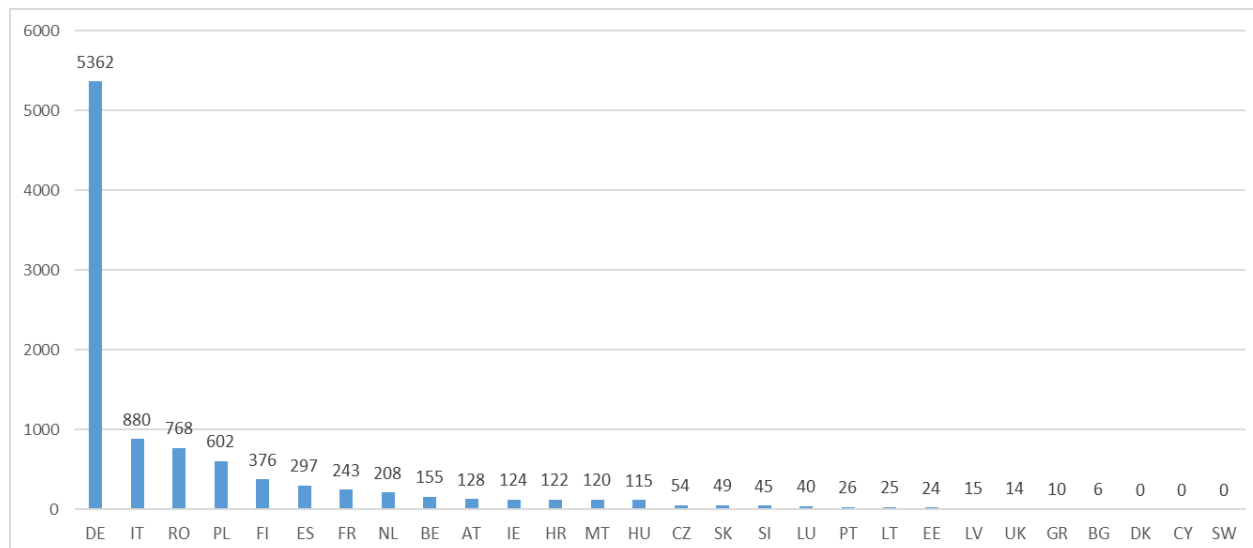
Figure 2 – Quantities of foodstuffs treated by ionising radiation in approved irradiation establishments within the European Union since 2010



4 RESULTS OF CHECKS AT PRODUCT MARKETING STAGE

For the period 2018-2019, 9 808 samples were analysed by 25 Member States, i.e. overall 12.1% less in average than in 2016-2017. The data for each Member State are available in Annex II and summarised in Figure 3.

Figure 3 – Samples analysed at product marketing stage within each Member State in 2018-2019



Three Member States and Norway did not perform any analytical checks at product marketing stage in 2018-2019 due to budgetary restrictions (Denmark and Norway), lack of laboratory capacity (Cyprus) or other control priorities (Sweden).

From the total of 9 808 samples, 83 were not compliant (1%) and 88 (1%) gave inconclusive results. The non-compliance observed were mainly incorrect labelling and forbidden irradiation. The percentage of non compliance (1%) was slightly higher than in the previous report (0.8%).

At marketing stage, as illustrated in Figure 4, the majority of the products analysed were 'herbs and spices' (39%) and 'cereals, seed, vegetables, fruit and their products' (24%). Under category 'other' (foods supplements and soup and sauces) the percentage was 20%.

Figure 4 – Foodstuffs category analysed at product marketing stage within the European Union in 2018-2019

