



## **Irradiated Food Survey 2007**

**June 2008**

*The results presented in this report relate solely to the individual samples/batches tested and do not necessarily reflect the general status of the products listed.*

## **1. SUMMARY**

The Food Safety Authority of Ireland (FSAI) carried out a survey of noodle products and foods containing goji berry on sale on the Irish market to determine their compliance with EU food irradiation legislation. Noodles and accompanying sachets of seasonings had been the subject of a previous FSAI survey in 2005 in which a number of products (mainly sachet contents) were found to contain one or more irradiated ingredients that were not labelled accordingly.

A total of 50 samples were tested in the 2007 survey (32 noodle products and 18 goji berry products), with four of each (16%) identified as being positive for irradiation. Though these findings do not raise immediate safety concerns, the irradiated products were not labelled and therefore in breach of EU Directive 1999/2/EC of the European Parliament and Council. The FSAI contacted the producers of the irradiated goji berry products and the affected batches were voluntarily removed from sale. Where contact was made, the responses from the manufacturers or importers of the irradiated noodle products were unsatisfactory and the matter has been referred to the European Commission for further action.

## **2. Legislation Governing Food Irradiation**

The marketing and labelling of irradiated food within the EU is governed by the Framework Directive (1999/2/EC) and its implementing Directive (1999/3/EC), transposed into Irish legislation by S.I No 297 of 2000.

The Framework Directive covers the general and technical aspects of the irradiation process, labelling of irradiated foods and conditions for authorising food irradiation. Irradiation of a food is permitted only where there is a technological need and where it would benefit consumers. Irradiation may not be used as a substitute for good hygiene or manufacturing practices.

Dried aromatic herbs, spices and vegetable seasonings are the only ingredients currently authorised within the EU for treatment with ionising radiation. Until such time as the EU list of food authorised for irradiation is finalised, Member States may continue to irradiate foods that already had national authorisations prior to implementation of the Directive.

Irradiated food may be imported from a third country only when it has been irradiated in a facility approved to EU standards. Currently, irradiation facilities in South Africa, Turkey and Switzerland have such EU approval.

### **3. FSAI Irradiation Surveys**

EU Member States carry out routine sampling and testing of various foods and ingredients to determine the level of compliance with EU legislation governing irradiated food. Under *Article 7(3)* of Directive 1999/2/EC, Member States are required each year to forward the results of checks on irradiation facilities and products on the market to the Commission, from which is compiled an annual report on food irradiation that is published on the Commission website.

Since 2005, the FSAI has conducted additional targeted surveys on food supplements, strawberries and more recently in 2005, on 55 noodle products, of which 14 (25%) were found to be irradiated. Noodle products were once again included in the 2007 survey along with goji berry products which had come to the attention of a number of Member States as being irradiated but not labelled.

### **4. 2007 Survey**

In October 2007, 32 noodle and 18 goji berry products were purchased by the FSAI at a range of retail outlets including supermarkets and health food shops in Dublin. Where possible, the noodle brands that yielded positive results in the 2005 survey were sampled, while only a limited number of goji berry products were available. In regard to noodle samples, only the accompanying sachets containing ingredients such as vegetables, herbs, spices or sauces were analysed.

Samples were submitted to a commercial laboratory to analyse for evidence of irradiation. The testing methodology employed was the EU standardised method EN 1788, or thermoluminescence (TL) detection method, which relies on the presence of silicate minerals found in some foods. A minimum sample size of 100g is required to ensure sufficient mineral content for analysis. For this reason, sachets of ingredients such as vegetables, herbs, spices and sauces in the noodle products were combined. Notwithstanding this, some of the samples collected had insufficient levels of mineral content.

### **5. Results**

Four of the 32 noodle samples (13%) and four of the 18 goji berry samples (22%) tested were found to contain irradiated ingredients.

#### ***Goji berry products***

The manufacturers of the irradiated products containing goji berry ingredients were contacted and informed of the survey results. The batches of goji berry products that tested positive in the survey were subsequently withdrawn from the market voluntarily. The European Commission and other Member States were notified by the FSAI through the Rapid Alert System for Food and Feed about the negative

results and the response of the manufacturers (RASFF numbers 2008.0302 and 2008.0305).

### ***Noodle Products***

The irradiated ingredients within the sachets accompanying the noodle products were produced by two manufacturers located in China. Several attempts by FSAI to contact the manufacturers, or importers of these products were not successful with the result that the issue has been referred to the EU Commission for further action.

An additional three noodle samples were reported as inconclusive for irradiation and while no enforcement action was taken, the relevant food business operators were informed by FSAI of the results and of their obligations under EU food irradiation legislation.

***Table 1: Irradiated food products***

Brand	Product	BB date	Batch	Origin
Four Seas	Seaweed hot & spicy instant noodles Beef and mushroom flavour	04.2008	2007 06 16 A	China
Maitre Khan	Instant noodles Chicken & mushroom flavour	20/08/2008	691019	China
Maitre Khan	Instant noodles Chicken with mushroom flavour	11 07 2007	MAF 12 07 2006	China
Maitre Khan	Instant noodles Spring onion & beef flavour	18/07/2008	691018	China
Gillian McKeith's	Goji Berry Bar	03 MAY 2008	070807	UK
Gillian McKeith's	Goji Berry Bar	05 APR 2008	070706	UK
Linwoods	Organic Milled Flaxseed & Sun Dried Milled Goji Berries	JAN 08	03007	UK
Linwoods	Organic Milled Flaxseed, Goji Berries, Sunflower, Pumpkin & Sesame Seeds	FEB 08	06007	UK

**Table 3: Noodle products inconclusive for Irradiation**

Brand	Product	BB date	Batch	Origin
Baijia	Instant threads Pepper and hot flavour	09.2008	200707021360	China
A - One	Instant vegetarian noodles	05.11.08	B1	Vietnam
Maitre Khan	Beef and tomato flavour Instant noodles	02.2008	G2007062111 A1	China

**Table 2: Goji berry products not irradiated**

Brand	Product	BB date	Batch	Origin
Linwoods	Organic milled flaxseed & sun dried milled goji berries	AUG 08	22507	UK
Linwoods	Sun dried goji berries	AUG 08	22107	UK
Linwoods	Whole sun-dried goji berries	OCT 08	27407	China
Neal's Yard	Sun dried Tibetan goji berries	JUL 08	07 206 1610 4 31027	China
Neal's Yard	Sun dried Tibetan goji berries	AUG 08	07 241 1906 1 31349	China
Neal's Yard	Sun dried Tibetan goji berries	MAY 08	07 200 1254 4 30950	China
Linwoods	Organic milled flaxseed, goji berries, sunflower, pumpkin & sesame seeds	AUG 08	24207	UK
Linwoods	Sun dried goji berries	AUG 08	23507	UK
Linwoods	Organic milled flaxseed & sun dried milled goji berries	APR 08	10907	UK
Linwoods	Whole sun-dried goji berries	OCT 08	28407	China
Linwoods	Milled organic flaxseed & goji berries	OCT 08	28207	UK
Linwoods	Organic milled flaxseed & sun dried milled goji berries	JUL 08	16107	UK
Nature's Crop	Sun dried goji berries	20/MAY/08		China
Nature's Crop	Sun dried goji berries	26/MAY/08		China

**Table 3: Noodle products not irradiated**

Brand	Product	BB date	Batch	Origin
Knorr	Snack soup Chinese noodle	11/2008	L72401K 08	
Koka	Oriental style instant noodle Chicken flavour	30/01/2009	BZ7090423 GT2R	Singapore
Pot Noodle	Chicken and mushroom flavour	APR 08	L7192A3796	
Sanchi	Organic instant noodles with miso	07.05.2008	00553	Denmark
Blue Dragon	Chow mein instant noodles	18.01.2009		China
Aldi Snack Noodle	Chicken & mushroom flavour	OCT 08	L7274/4/2	
Nissin	Spicy seafood cup noodles	12/07/2008	0296ANC1	
Nissin	Satay flavour Instant noodle with soup base	08 JUL 13		Hong Kong
Samyang Foods	Kalgugsu Non frying noodle soup	16/08/08		Korea
Kim MakLong	Beef flavour instant noodles	12.2007		China
Maitre Kang	King bag! Instant noodles Shrimp and fish flavour	12.2007		China
Samyang Foods	Seafood flavour noodle Seafood party	16/08/08		Korea
Nissin	Tokyo Shoyu flavour Instant noodle with soup base	08 AL17		Hong Kong
MAMA	Pad Kee Mao Stir fried noodles	31 08 2008	75D G11	Thailand
Nong Shim	Seafood Ramyun Instant noodle soup	21. MAR. 2008	TK 07	Korea
Samyang Foods	Chacharoni noodle soup	06/AUG/2008		Korea
Koka	Oriental style instant noodle Beef flavour	30/03/2009	BZ7081708IT 2R	Singapore
Assi	Chajang Bumbuck instant noodles	2008. 03. 18	2A1	Korea
Assi	Instant snack noodle with soup base	2008.03.23	01 1 B 7	Korea
McDonnells	Southern fried chicken flavour Super Noodles	MAR 09	7276 WF 15 17	
Paldo	Gomtang noodles	19.03.2008		Korea
Tesco Value	Chicken flavour instant noodles	23 10 2008	4	China
Baijia	Original hot & sour flavour instant vermicelli	19 Feb. 2009		China
Koka	Spicy black pepper flavour non-fried noodles	30/11/2008	BZ7100807E T7R	Singapore
Koka	Spicy sesame chicken flavour non-fried noodles	30/11/2008	BZ7094207E T7R	Singapore

## 6. Conclusion

The 2007 survey identified a number of products that had been irradiated, although they did not carry the necessary labelling required under EU and Irish legislation. While the problem of unlabelled irradiated foods containing goji berries was satisfactorily dealt with by the manufacturers, all efforts made by the FSAI to address the same problem in relation to the irradiated noodle products was not as successful and in these instances the matter has been referred to the European Commission.

## 7. Further Information

**EU and Irish Irradiated food legislation:**

[http://www.fsai.ie/legislation/food/legislation\\_manufacturing.asp#2](http://www.fsai.ie/legislation/food/legislation_manufacturing.asp#2)

**Annual Reports of the European Commission on food irradiation:**

[http://ec.europa.eu/food/food/biosafety/irradiation/index\\_en.htm](http://ec.europa.eu/food/food/biosafety/irradiation/index_en.htm)

**FSAI Irradiated Food Leaflet:**

*Irradiated Food*

[http://www.fsai.ie/publications/leaflets/Irradiated\\_Food\\_Leaflet.pdf](http://www.fsai.ie/publications/leaflets/Irradiated_Food_Leaflet.pdf)

**Further information on this survey can be obtained from:**

Food Safety Information Centre,  
Food Safety Authority of Ireland,  
Abbey Court, Lower Abbey Street, Dublin 1  
Tel: 1890 336677 Fax: (01) 817 1301

**E-mail: [info@fsai.ie](mailto:info@fsai.ie). Website: [www.fsai.ie](http://www.fsai.ie)**