ACONBURY SPROUTS

LIVING FOODS • ORGANICALLY GROWN

# The European response to the 2011 STEC outbreaks

Jim Hardy

# May 2011: major outbreak of STEC O104 in Germany

3000 people with bloody diarrhoea

Many with Haemolytic Uremic Syndrome (kidney failure)

Over 40 died

O104 not previously considered of public health concern

# Food Standards Agency advice

June 2011

All sprouts should be cooked thoroughly

July 2012

Sprouts can be eaten raw if labelled 'ready to eat'

FSA Guidance 2004

FSA/FPC guidance 2011/12

# November 2011

EFSA scientific opinion on the risk posed by STEC and othe pathogenic bacteria in seeds and sprouted seeds

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Preventing initial contamination of seeds of foremost importance

Food safety management in sprout production chain: HACCP, GHP, GAP, GMP

All stakeholders including home sprouters should be aware of risks.

Sprouts are ready-to-eat foods

EU food safety hygiene rules should apply
from seed production
to sprout production

Preventing initial contamination of seeds
particularly important

No current methods eliminate all pathogens from
all types of seeds.

# Mitigation Options: seed

Identifying seed crops intended for sprout production before planting

Safe use of fertilizers and irrigation water

Minimising soil contamination and mechanical damage

Workers' hygiene

Hygienic transport, processing and storage

Removing damaged seed

Improving traceability and minimising mixing of lots

# Mitigation Options: sprouts

Washing seeds before germination

Potable water

Decontamination

Chill chain

# Microbiological criteria

Not currently possible to evaluate

More data needed

Difficulties of sampling and testing

Pathogenic E. coli to be added to Salmonella and L. monocytogenes

# EU Commission proposals

Traceability

Certification

Approval of establishments

Guidance

Micro criteria and sampling

# Traceability requirements

Seeds and sprouts

Currently 'one step back, one step forward'

High public health risk and widespread trade requires rapid tracing

1. Scope:
Sprouts and 'seeds intended for the production of sprouts'

2. Definitions:
(a) Sprouts
(b) Batch

3. Requirements:
(a) Description
(b) Quantity
(c) Supplier
(d) Customer
(e) Reference
(f) Date

Record keeping

# 4. Certificate

1. To accompany import
2. To be retained by importer
3. To be passed down the line to sprout producer/ retail packager

# Certification requirements

1. Scope

Does not apply to seeds where label says not for sprouting

2. Definitions:
(a) Sprouts
(b) Consignment

# 3. Requirements

I, the undersigned, hereby declare that I am aware of the relevant provisions of Regulation (EC) No 852/2004 and certify that:

- the seeds described above were produced under conditions which comply with Regulation (EC) N°852/2004 and in particular with the general hygiene provisions for primary production and associated operations set out in Part A of Annex I thereto;
- the sprouts were produced in establishments approved in accordance with the requirements laid down in Article 2 of Regulation (EU) No…./… [SANCO/**13009**/2011].
- the sprouts were produced under conditions which comply with the traceability requirements laid down in Regulation (EU) No…./… [SANCO/**10030**/2012 *traceability*] –

# Approval of establishments by competent authority

GHP

# Amendment to the Guidance document on the implementation of certain provisions of Regulation (EC) No 852/2004 on the hygiene of foodstuffs

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Protection of seeds  from contamination in store

Washing of seeds before germination

Irrigate with potable water

Refrigeration

Personal health and hygiene

Hygienic transport

# Microbiological criteria

In its opinion EFSA considers that it is currently not possible to evaluate the extent of public health protection provided by specific microbiological criteria for seeds and sprouted seeds. This highlights the need for data collection to conduct quantitative risk assessment. Therefore this criterion should be reviewed taking into account progress in science, technology and methodology, emerging pathogenic microorganisms in foodstuffs and information from risk assessment.

| Food category | Micro-organisms | n | c | Limits | Analytical reference method | |
|---|---|---|---|---|---|---|
| Sprouts | Shiga toxin producing E. coli (STEC) O157, O26, O111, O103, O145 O104:H4 | 5 | 0 | Absence in 25 grams | CEN ISO 13136 | Products placed on the market during their shelf-life |
| n = number of units comprising the sample<br>c = number of units over limit | | | | | | |

# Sampling rules

*A. General rules for sampling and testing*

1. Preliminary testing of the batch of seeds

Food business operators producing sprouts shall carry out a preliminary testing of a representative sample of all batches of seeds. A representative sample shall include at least 0.5% of the weight of the batch of seeds in sub samples of 50g or be selected based on a structured statistically equivalent sampling strategy verified by the competent authority.

For the purposes of performing the preliminary testing, the food business operator must sprout the seeds in the representative sample under the same conditions as the rest of the batch of seeds is to be sprouted.

## 2. Sampling and testing of the sprouts and the spent irrigation water

Food business operators producing sprouts shall take samples for microbiological testing at the stage where the probability of finding Shiga toxin producing *E. coli* (STEC) and *Salmonella* spp is the highest, in any case not before 48 hours after the start of the sprouting process.

However, if a food business operator producing sprouts has a sampling plan, including sampling procedures and sampling points of the spent irrigation water, they may replace the sampling requirement with the analysis of 5 samples of 200 ml of the water that was used for the irrigation of the sprouts.

## 3. Sampling frequency

Food business operators producing sprouts shall take samples for microbiological analysis at least once a month at the stage where the probability of finding Shiga toxin producing *E. coli* (STEC) and *Salmonella* spp is the highest, in any case not before 48 hours after the start of the sprouting process.