Dioxin Contamination of Feed Products in Germany

Advisory Committee on Animal Feedingstuffs
2 March 2011
Overview - Incident

• A compound feed producer in Germany found dioxin contamination:

1.56 ng PCDD/F – WHO TEQ /kg

in compound feed, produced using feed fat from a manufacturer in Schleswig-Holstein on 21 December 2010
Overview – Cause - 1

The contamination was traced to the feed fat used in the manufacture of the compound feed.

Feed fat from the same source was found to contain technical fatty acids, this was contaminated at a level of 123 ng PCDD/F – WHO TEQ /kg (no PCB).

Both this and the compound feed had an unusual dioxin congener pattern – still not clear what the cause of the contamination was.
Overview - Cause - 2

• 8 deliveries of a total of 206 tonnes of ‘technical mixed fatty acids’ from 11 November 2010 to 16 December 2010 were supplied to the manufacturer by a biofuel company in the Netherlands and via a trader and used to make feed fats.

• It is not yet clear why this diversion into the feed chain occurred.
Overview – Feed fats

• A total of 2,256 tonnes of feed fat made with the contaminated mixed fatty acids. This was sent to 25 compound feed producers in Germany – last delivery was 23 December 2010

• No supply of feed fat to other Member States or to ‘third countries’
Overview - Compound feed - 1

- Compound feed with a 2-10% incorporation rate of contaminated feed fat went to 4,760 agricultural holdings in five German Länder.
- Compound feed for broilers, laying hens, pigs fattening, cattle (fattening and dairy) and rabbits was contaminated.
Overview - Compound feed - 2

- Two consignments of compound feed for breeder hens were sent to France. Calculations indicated that the dioxin content of both would be below the maximum limit.
- Two consignments of compound feed for breeder hens were sent to Denmark. Calculations indicated that the dioxin content of one consignment might exceed the maximum limit.
Findings - 1

Technical mixed fatty acids

Dioxin levels in retained samples from the feed fat plant:

2.01 – 150 ng PCDD/F – WHO TEQ /kg for 8 consignments received from 11 November 2010 – 7 December 2010

The four most recent deliveries all had lower levels (2 - 3 ng PCDD/F – WHO TEQ /kg)
Findings - 2

Feed fat

43 samples were found to contain dioxin:

‘Background’ - 62 ng PCDD/F – WHO TEQ /kg

As with the technical fatty acids, the more recent batches had lower levels of contamination.
Findings - 3

Compound feed

Subsequent analysis of 40 samples of compound feed (poultry, pigs, cattle and rabbits) made from the feed fat found that none exceeded the limit of 0.75 ng PCDD/F – WHO TEQ /kg
Findings - 4

Eggs
164 samples analysed, 31 were non-compliant

Laying hens
4 samples analysed, 2 were non-compliant
Findings - 5

Broilers
8 samples analysed, 0 were non-compliant

Turkeys
59 samples analysed, 0 were non-compliant
Findings - 6

**Pigs**
61 samples analysed, 1 was non-compliant

**Cattle**
1 sample analysed, 0 were non-compliant
Restrictions to farms

• On 19 January 2011 a total of 677 farms had restrictions placed where records and analytical data suggested that contaminated feed had been received.

• The authorities only lifted these once it could be shown that feed being used and that food produced were compliant.
German authorities’ response - 1

Ten-point action plan
1. Authorisation of feed fat producers
2. Physical separation from technical products
3. Expanded legal controls
4. All labs to report direct to authorities
5. Exclusive positive list of feed materials
German authorities’ response - 2

Ten-point action plan – continued

6. Product liability insurance
7. Review of penalties
8. Enhanced monitoring of dioxins
9. Improvement of controls/inspection
10. Transparency for consumers