



## Monitoring of Fusarium-toxins in cereals and cereal products intended for animal feeding

Health and Consumer Protection Directorate-General  
Unit D3: Chemicals, Contaminants and Pesticides

Brussels, 20 July 2006

John Williams, Chairman FEDIAF Safety Systems Group



## FEDIAF - What we are

- ⇒ Established in 1970
- ⇒ 20 national pet food industry associations
- ⇒ Representative for around 450 pet food companies in Europe, equivalent to over 95% of the European industry
- ⇒ Expansion to CEEC is on ongoing
- ⇒ Three permanent staff at Brussels headquarters

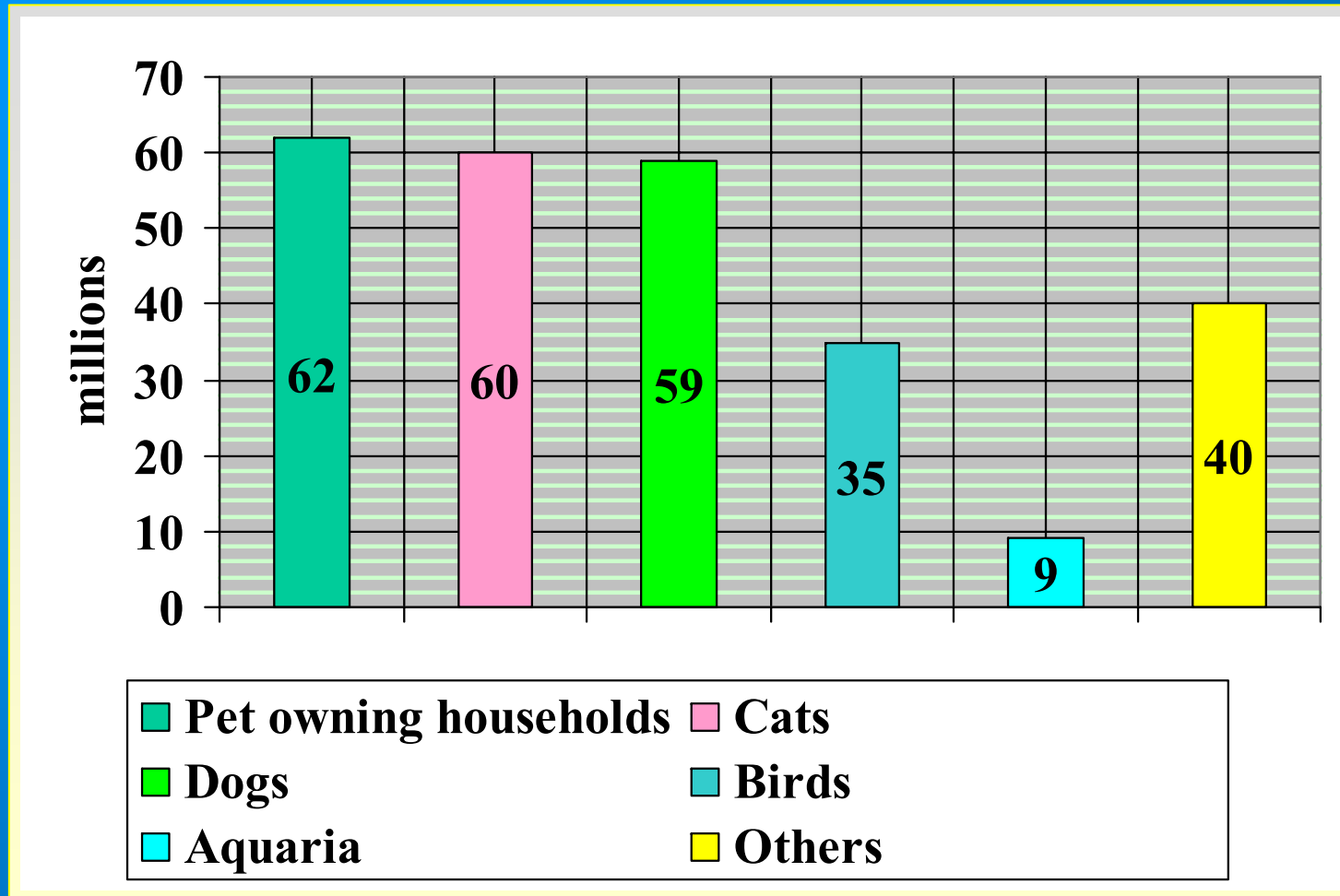


## FEDIAF - What we are

- ⇒ 450 pet food companies
- ⇒ Annual sales in volume : 5.000.000 tons of pet food
- ⇒ Annual sales in value : EURO 8.5 billion
- ⇒ Growth rate (value) over last three years : 3 %
- ⇒ Direct employment : 21.000, indirect employment : 30.000
- ⇒ Agricultural by-products purchased in the EU : 2.750.000 tons
- ⇒ Number of pet owning households : 62.000.000



# FEDIAF - Pet population



**HACCP**

**Heavy metals**

**Avian influenza**

**BSE**

**BIOHAZ**

**No dilution**

**CONTAM**

**Acrylamide**

**Traceability**

**DG Sanco**

**Dioxin**

**RASFF**

**Mycotoxins**

**Controls**

**FEEDAP**

**Codes of Good Practice**

**Pesticide residues**

**EFSA**

**Foot & mouth disease**

**H5N1 - 70°C**



## Mould growth



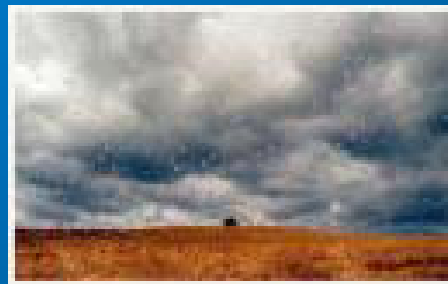
- Food source for the organism
- Temperature between 12 and 31°C
- "stress factors" (temperature/rain/draught...)
- Oxygen and moisture





## Mould prevention on farm Feed Hygiene Regulation 183/2005/EC

- Nitrogen (N) and potassium (K) in farming soil
- Hybrid selection
- Crop rotation
- Monitoring leaf diseases
- Optimum harvest timing

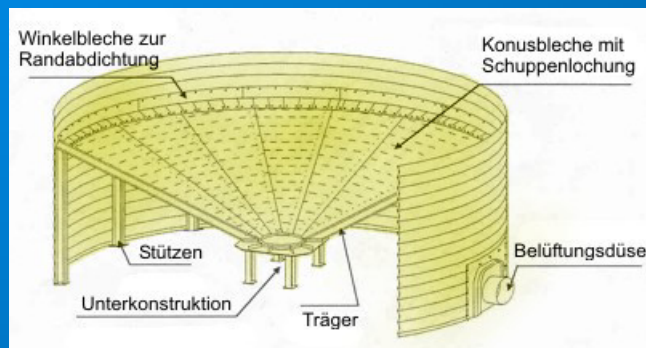




## Mould prevention at storage Feed Hygiene Regulation 1831/2005/EC



- Reduce kernel damage
- Control moisture level at storage
- Control ratio moisture-temperature for  $A_w$  value
- Aeration/cooling
- Cleaning of bins/silos







## Mould prevention at transport To pet food factory or at factory ?



- Negligible risk
- Just in time delivery
- No long storage period at factory





## Feed Hygiene Regulation 1831/2003/EC HACCP

- Feed business operators from farm to factory
- Farmers' and suppliers' prime responsibility to
  - Apply HACCP
  - Apply GMP
  - Control and test
  - Provide safe raw materials
- Manufacturers' responsibility to
  - Apply HACCP/GMP
  - Verification
  - Keep records

Version 2005



# F.E.D.I.A.F.

## CODE OF PRACTICE FOR THE MANUFACTURE OF SAFE PET FOODS

**DECEMBER 2001**

(REVISION 1 – OCTOBER 2003)  
(REVISION 2 – FEBRUARY 2004)  
(REVISION 3 – DECEMBER 2004)  
(REVISION 4 – MAY 2005)  
(REVISION 5 – JUNE 2005)  
(REVISION 6 – SEPTEMBER 2005)

CODE OF PRACTICE MEANS GUIDE TO GOOD PRACTICE IN ACCORDANCE WITH THE EU FEED HYGIENE REGULATION 1831/2003/EC

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DG Sanco, 20/7/2006



## Testing by the pet food industry

- OTA, Fumonisin B1/B2, DON, ZEA, Aflatoxin, HT-2, T-2
- 1010 controls (finished product/cereals)
- Testing period from 2003 to 2006
- Reassuring results



## Testing by the pet food industry OTA (no guidance level none for pet food)

Finished products n = 72

< 0.005 ppm => 62

> 0.005 ppm but < 0.25 ppm => 10

Cereals

No testing



## Testing by the pet food industry Fumonisin B1 / B2 (guidance level pet food 5 ppm)

Finished products n = 129

< 0.005 ppm => 66

> 0.005 ppm but < 0.3 ppm => 52

> 0.3 ppm but < 5 ppm => 9

> 5 ppm => 2



## Testing by the pet food industry Fumonisin B1 + B2 (guidance level maize 60 ppm)

Maize n = 113

< 15 ppm => 87

> 15 ppm but < 60 ppm => 26



## Testing by the pet food industry DON (guidance level 8 ppm)

Finished products n = 90

< 0.2 ppm => 66

> 0.2 ppm but < 5 ppm => 24

Cereals n = 161

< 8 ppm => 155

> 8 ppm => 6

But inclusion level in pet food are low and  
food rejection (dogs) at 4.5 ppm





## Testing by the pet food industry ZEA (guidance level for cereals 2 ppm)

Finished products n = 97

< 0.05 ppm => 75

> 0.05 ppm but < 2 ppm => 22

Cereals n = 129

< 2 ppm => 16

< 0.6 ppm => 113



## Testing by the pet food industry Aflatoxin (guidance level for maize 0.2 ppm)

Maize n = 112

< 0.01 => 105

> 0.01 ppm and < 0.2 ppm => 7



## Testing by the pet food industry HT-2 and T-2 (No guidance level)

Cereals n = 51

< below detection level => 51

**THE EUROPEAN PET FOOD INDUSTRY**

**fedialf**

**PETS IN SOCIETY**

Introduction

Social Role and Quality of Life

Reasons for ownership

As we learn...

The Members of FEDIAF

Safety of Pet Food

Trends

Facts and Figures

Legislation

Industry and the Environment

the role of the Industry

Different Foods for different Pets

Prepared Pet Food

**W - New - New : Code of Practice for the Manufacture of Safe Pet Food**

**[click here](#)**