

# **Animal By-Products /** **Resource Disposal & Minimisation**

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**[www.chilledfood.org](http://www.chilledfood.org)**

## **EC Regulation 1774/2002**

**bans landfilling of ABP-containing waste  
derived from industry**

**after 31/12/05**

# Programme

- **Chilled food characteristics & products**
- **ABPR**
  - Key points
  - Key issues for the sector
  - Developing routes to compliance
- **Next steps**

# **Chilled Food Characteristics**

- **£6bn+ UK retail market**
  - CFA represents manufacturers comprising ~85% market
  - ~Half of estimated value of total European chilled prepared food market
- **Wide variety of products**
  - 9,000 SKUs made by CFA members at any one time
- **Multiproduct factories**
  - Short runs made to order – forecasting, JIT
  - Generally 30-40 lines each day - changeovers
- **Multicomponent products**
  - Animal derivatives: 0-100%, but large proportion of products 5%-25% and 50-70% moisture
  - Remainder = carbohydrate, e.g. bread, pasta, and produce

# **Chilled Food Characteristics**

- **Complex ingredients streams → heterogeneous food waste**
- **Potential for re-working generally low**
- **Short shelf life products**
  - Perishable waste requires efficient disposal routes
- **Chilled foods are largely ready to eat/ready to (re)heat**
  - RTE previously not covered by Animal By Products Orders

# Chilled Prepared Foods

- **Ready meals** and side dishes
- **Dressed salads (with/out protein)**
- Dry salads (e.g. mixed leaf)
- Prepared vegetables & stir fry mixes
- **Pizzas**
- Fresh pasta (plain and **filled**)
- **Soups, Sauces, Dressings and Dips**
- **Sushi**
- **Sandwiches and sandwich fillings**
- **Delicatessen products**
- Prepared fruit
- **Desserts**

# ABPR – Key Points

- **EC Reg 1774/2002 bans landfilling ABP-containing waste derived from industry after 31/12/05**
- **ABP categories defined - determine disposal routes:**
  - Cat 1: High risk e.g. body parts, SRM
  - Cat 2: Med risk e.g. gut contents
  - **Cat 3: Lower risk e.g. ‘former foodstuffs’**
    - "former foodstuffs of animal origin, or former foodstuffs containing products of animal origin, other than catering waste, which are **no longer intended for human consumption** for commercial reasons or due to problems of manufacturing, or packaging defects or other defects which do not present any risk to humans or animals."

# **ABPR – Key Issues**

- **Animal/human health basis theoretically – TSEs, FMD**
- **Lacks logic in scope**
  - Excludes catering and domestic waste
  - Covers heat processed animal protein although not a significant risk
  - Resultant lack of clarity of requirements
- **Industry working party with DEFRA 2003 to clarify**
  - Outline guidance
- **Some legal details unresolved**
  - Work ongoing in EC (e.g. dairy products, approved processes)
- **The clock is ticking!**



# **ABPR – Ongoing Problems**

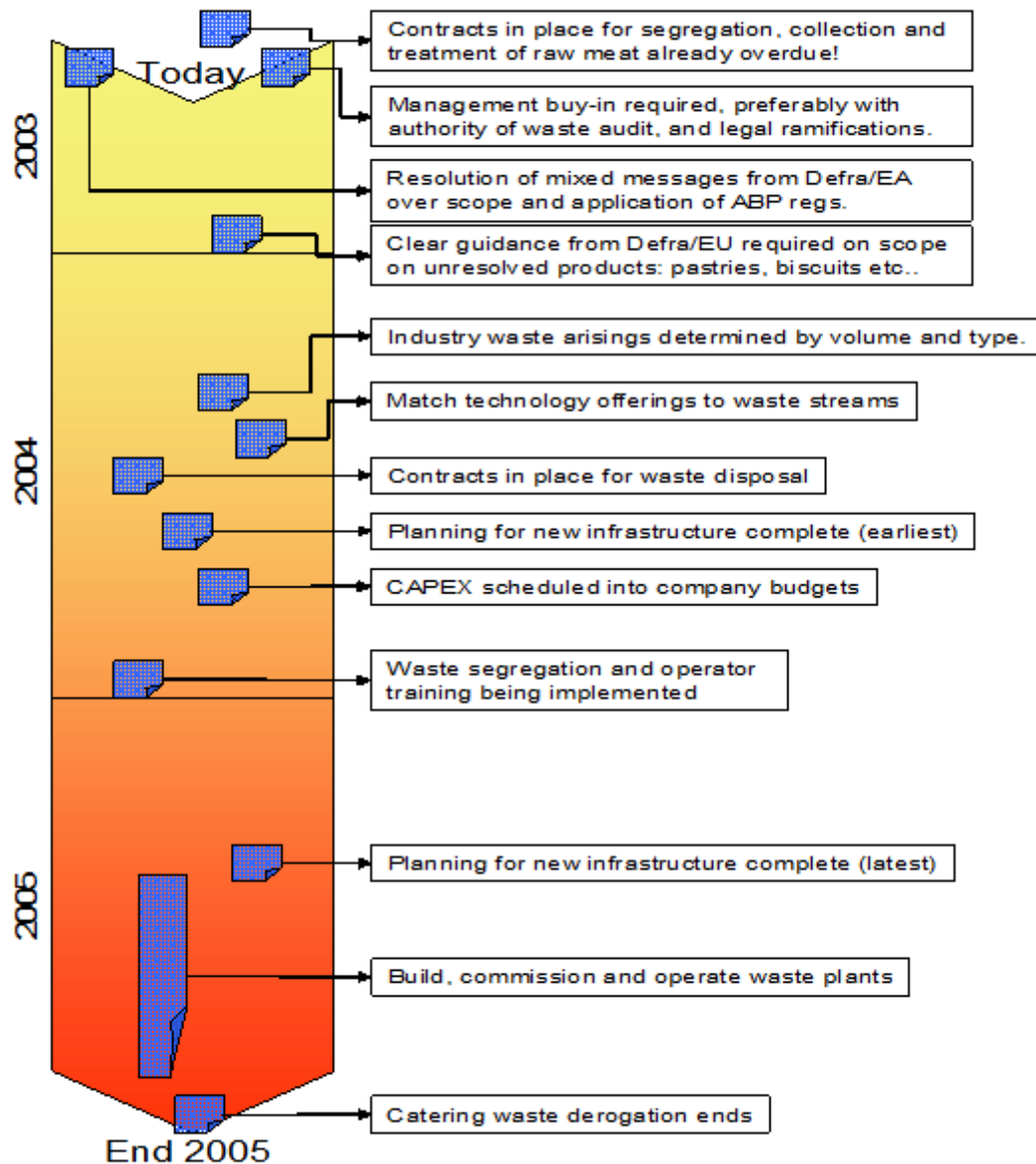
- **Paucity of sustainable, low waste miles solutions**
  - Obtained delay in implementation (June 2003-Jan 2006) to enable disposal infrastructure to be developed
- **Significant timescale and complexity of approval of treatment processes and premises**
  - **Numerous agencies' responsibilities**
    - SVS, LAs - ABPR enforcement
    - EA - Waste Framework Directive, Landfill Directive and PPC
  - **Multiple layers of legislation – animal/public health, waste**
    - Relationship between various legislation still subject to clarification
      - Discussions continuing – EC (DGs Sanco & Environment) and Member States
    - Municipal systems need to be approved to take Cat 3 waste

# **ABPR - Compliance**

- **Manufacturers want to remain so, not become waste disposal companies**
- **CFA route to solutions:**
  - Obtained delay in implementation (June 2003-Jan 2006) to enable disposal infrastructure to be developed
  - **CFA/DEFRA Workshop Sept 2003 → Compliance routemap**
  - **CFA/DEFRA Waste Technologies Workshop May 2004:**
    - Resource/Waste mapping data
    - Technical solutions options

# ABPR Compliance Routemap (9/03)

## Former Foodstuffs Treatment Milestones Timeline



← **NOW**

# **CFA ABP/Resource Mapping**

- **‘Waste’ = ‘resource’, i.e. raw material for e.g. energy**
- **Quantified and located biodegradable (packaging and Category 3) resource produced by the sector**
- **Aimed to assist industry in identifying investment requirements**
  - Appropriate disposal systems
  - Locations
- **Identified resource minimisation potential**

# Mapping Data

- **Three parameters collected:**
  - Daily tonnage total biodegradable resource, of which
    - % Biodegradable packaging, and
    - % Category 3
- **Sample = 85 sites:**
  - CFA Members (69 sites)
  - Estimates for non-members (16 sites)
  - **Sites may have more than one factory**
- **Data sorted by town, county and EA region**

# Mapping – Main Findings

- **~172,000 tonnes p.a. (470 t/day) biodegradable packaging & Cat 3 resource**, of which
  - 91% - 155,000 tonnes (426 t/day) is Cat 3 food waste
- Estimate plus 10% for small plants → **Total ~190,000t p.a.**
- Biodegradable packaging content range: 0-45%
- Resource composition dependent on products produced at each site
- Identified county and regional resource hotspots

# County Resource Hotspots

• <b>Lincs:</b>	<b>19% (89 t/day)</b>	<b>16 sites</b>
• <b>Cambs:</b>	<b>14% (64 t/day)</b>	<b>5 sites</b>
• Lancs:	9% (43 t/day)	5 sites
• Yorks:	8% (37 t/day)	9 sites
• Notts:	8% (36 t/day)	4 sites
• London:	6% (29 t/day)	2 sites
• Derbyshire:	5% (22 t/day)	3 sites
• Northants:	4% (17 t/day)	3 sites
• Dorset:	3% (15 t/day)	1 site
• Other:	24% (118 t/day)	37 sites

# **County Resource Coldspots**

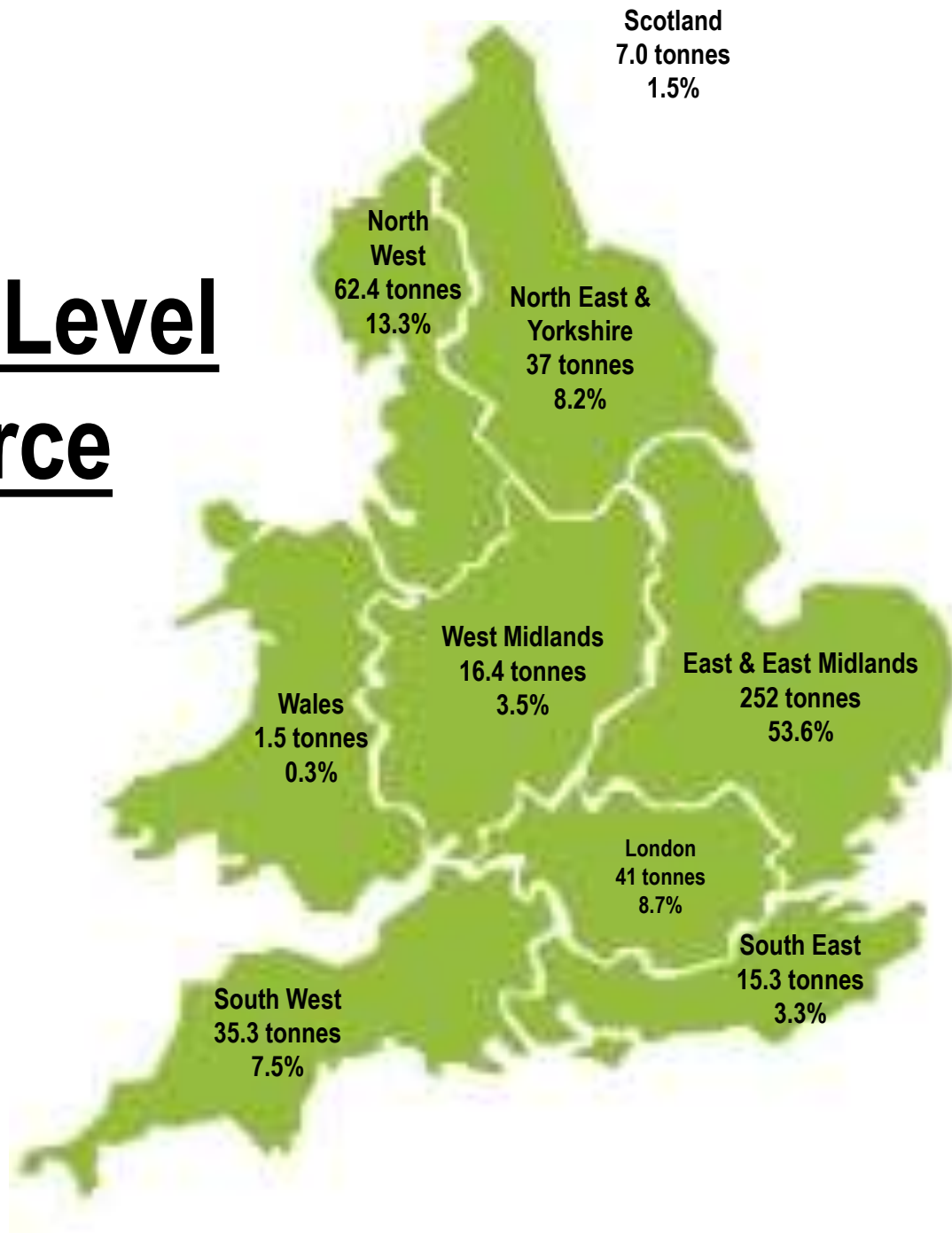
- Argyll & Bute, Sussex, Tyneside, Worcs: all 0.1%
- Hants: 0.2%
- Gwent: 0.3%
- Avon: 0.5%
- Warwks: 0.9%
- Gloucs, West Lothian: both 1.1%
- Bucks: 1.5%



# Regional Resource

• <b>East Midlands:</b>	<b>35% (165 t/day)</b>	<b>28 sites</b>
• <b>East:</b>	<b>18% (87 t/day)</b>	<b>8 sites</b>
• <b>North West:</b>	<b>13% (62 t/day)</b>	<b>7 sites</b>
• London:	9% (41 t/day)	4 sites
• Yorks:	8% (37 t/day)	9 sites
• South West:	8% (36 t/day)	9 sites
• West Midlands:	4% (16 t/day)	6 sites
• South East:	3% (15 t/day)	7 sites
• Scotland:	1.5% (7t/day)	3 sites
• North East:	0.4% (2 t/day)	3 sites
• Wales:	0.3% (1.5 t/day)	1 site

# Regional Level Resource



# Resource Breakdown (Towns)

Town	EA Region	Total daily tonnage food (cat 3) & biodegrad pack waste	% Biodegrad packaging	% cat 3 food waste	Region Total	Total daily tonnage biodegrad waste by region	% total by region
Peterborough	East	10.5	5	95	East	86.6	18.4
Biggleswade	East	5	10	90			
Wisbech	East Midlands	52.5	6	94			
Luton	East	6	5	95			
St Neots	East	0.5	2	98			
Methwold	East	12.5	7	93			
Barton	East Midlands	13	1	99	East Mids	165.4	35.2
Bourne	East Midlands	9	1	99			
Gosberton	East Midlands	4	10	90			
Grimsby	East Midlands	16	3	97			
Holbeach St Marks	East Midlands	4	10	90			
Scunthorpe	East Midlands	1	1	99			
Sutton Bridge	East Midlands	6	7	93			
Spalding	East Midlands	33.6	18	82			
Worksop	East Midlands	29.2	5	95			
Chesterfield	East Midlands	0.7	20	80			
Melton Mowbray	East Midlands	1.2	5	95			
Newark	East Midlands	1.5	15	85			
Nottingham	East Midlands	4.7	1	99			
Grantham	East Midlands	2	1	99			
Corby	East Midlands	7	1	99			
Heaner	East Midlands	2	1	99			
Rogerstone	East Midlands	1.5	2	98			
Wellingborough	East Midlands	0.5	2	98			
Derby	East Midlands	19.5	38.5	61.5			
Northampton	East Midlands	9	15	85			

# Total Tonnages Determined

	Total daily tonnage food (Cat 3) & biodegrade pack resource	Total Cat 3 food resource
Total Daily Tonnages:	470	426
Total Annual Tonnages:	171,590	155,490

**Est £4.5K/tonne cost of raw materials, processing**

**→ >£750M**

# Next Steps

- **Final resolution of ABPR details by EC**
  - No great specific impact on chilled prepared food sector – waste must go somewhere other than landfill, soon!
- **ABPR implementation by [chilled] food companies requires**
  - Knowing site waste characteristics
  - Identifying viable disposal technologies and solution providers
  - Potential liaison with
    - Other local manufacturers to share solutions (volumes)
    - Local Authorities – piggy backing with local systems
  - Investing in compliance
  - **Doing all of this now**

# **Minimising Waste – Best Practice**

- **DEFRA-funded project for CFA members**
- **Focus on production processes and waste arisings in relation to:**
  - ready meals
  - pizzas
  - sandwiches
- **Aim to run 2004+ and generate generic minimisation guidance**

# **Sources of Further Information**

- **Presentations from CFA/DEFRA Waste Technologies Workshop (May 2004)**
  - <http://www.chilledfood.org/Content/Presentations.asp>
- **CFA resource mapping data**
  - By town and county  
[http://www.chilledfood.org/Attachments/665\\_101CMS.pdf](http://www.chilledfood.org/Attachments/665_101CMS.pdf)
  - By town and EA region  
[http://www.chilledfood.org/Attachments/666\\_101CMS.pdf](http://www.chilledfood.org/Attachments/666_101CMS.pdf)
- **DEFRA**
  - <http://www.defra.gov.uk/animalh/by-prods/>



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