

# CFA and Fresh Produce

## 26/1/13 BHTA

**Kaarin Goodburn**

[cfa@chilledfood.org](mailto:cfa@chilledfood.org)

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





- **CFA aims, approach and members**
- **Key fresh produce issues**
- **CFA's fresh produce-related aims**
  - what do we want?
- **CFA's fresh produce-related activities**
  - what have we done?
- **Guidance available**



freshly made every day



# Chilled Food Association

- **What is our Mission?**

- To promote and defend the reputation, value and sustainability of the professional chilled food industry through the development and communication of standards of excellence in the production and distribution of chilled food

**Protect the market by protecting consumers**

- **Who are we?**

- Represent professional manufacturers supplying UK market



# Membership\*

## Full Members

- Hain Daniels 
- G's Fresh 
- Greencore plc 
- Kerry Foods Ltd 
- Samworth Brothers 
- Moy Park Ltd 
- Natures Way Foods 
- Northern Foods Ltd\*\* 
- Pasta Reale Ltd 
- Pork Farms Ltd 
- Rowan Foods 
- Soleco 
- S&A Foods Ltd 
- Vitacress Salads Ltd 
- Young's Seafoods Ltd (Findus Group) 

## Associate Members

- Dawn Fresh Foods
- Dearne Valley Foods
- WS Bentley Ltd

**CFA represents 75% of the UK's  
£10,306m retail chilled prepared food  
market**

\* At 22/1/13

\*\* Became part of 2 Sisters Food Group April 2011

# **Our Overall Strategy**

- **To promote our standards and sector to regulatory bodies, policymakers and other stakeholders**
- **For CFA Members to promote CFA standards throughout their supply base**
- **To catalyse action on issues broader than the chilled food sector alone**
- **To attract members who**
  - **Are professional chilled food manufacturers and chilled component/raw material suppliers – demonstrable competence**
    - **Meet CFA Guidelines standards**
    - **Are certificated to appropriate technical standards**
  - **Minimum £20m chilled turnover**



# Our Overarching Priorities

## 1. Lobbying for

- appropriate **risk-based regulation** and **Government policy**
- equitable **enforcement**
- wider uptake & recognition of **best practice** inc public procurement

## 2. Building knowledge

- providing **training** tools supporting common enforcement
- providing **support** to Members
- **research** funding, promotion, monitoring, reporting

## 3. Strengthening supply chain security

- up to the minute **alerts and intelligence**
- **incident** resolution and impact minimisation
- systems & trade issues feedback inc to HMG to minimise recurrence potential

# CFA Key Partnerships

## UK Government



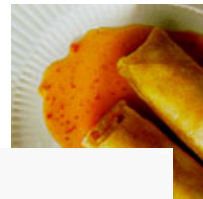
## Trade, Professions, Researchers



## International







What Are Chilled Foods?





# UK Chilled Prepared Food

- Dressed salads
- Leafy salads
- Prepared Vegetables
- Prepared fruit
- Stir fry kits
- Sandwiches
- Sandwich fillings
- Quiche/flans
- Pizza
- Recipe dishes/kits
- Meal Accompaniments
- Sushi
- Filled fresh Pasta
- Soups (some RTE)
- Sauces (some RTE)
- Dips
- Dressings
- Desserts

Items in green include ready to eat variants

# UK Chilled Food: The Most Dynamic Market?

Year	Market (£m)
1989	550
1999	4,550
2005	7,357
2011	9,755
2012	10,306

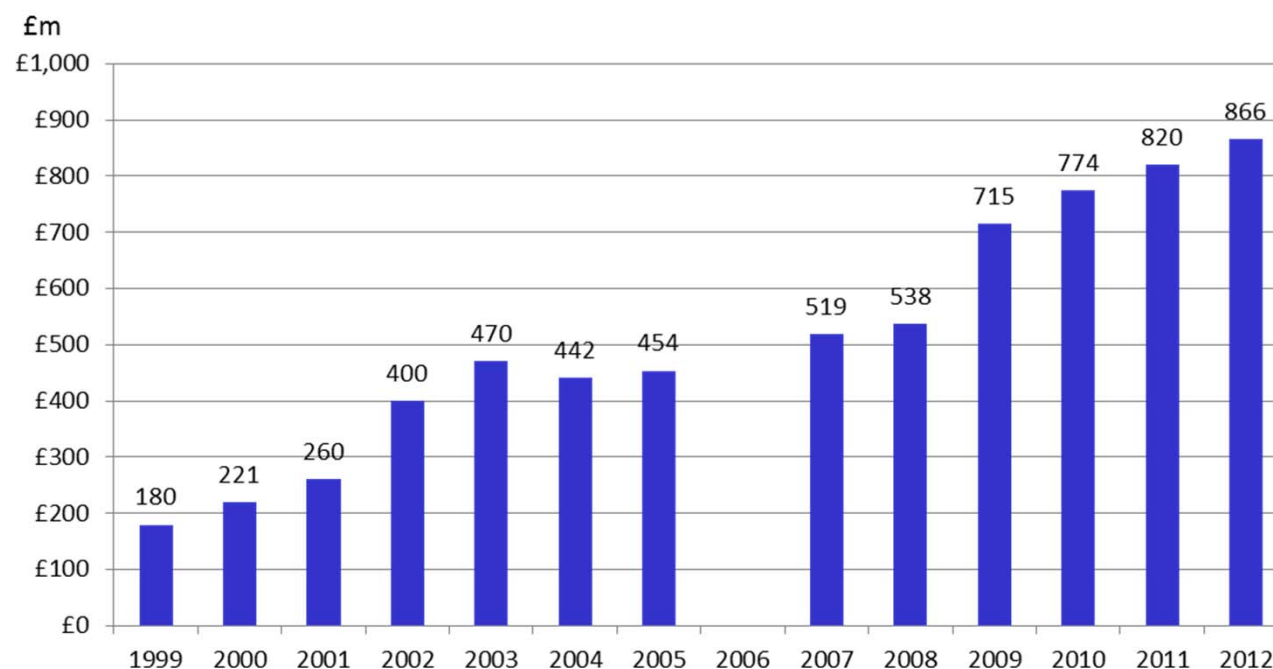
- ~19x market value growth since 1989 & growing 4.5% p.a.
- Unpreserved - hygiene and safety critical, assured by unrivalled standards and systems
- Seasonal raw materials: Pan-global sources, UK standards
- Integrated supply chains
- Short shelf life
- Significant NPD – 12,000 SKUs, 30-50% churn annually
- Retailer brands dominate - manufacturer brands more prevalent in prepared produce



Source: TNS/Kantar WorldPanel, CFA: [www.chilledfood.org/market](http://www.chilledfood.org/market)

# UK Chilled Prep Leafy Salads Market

Year	Value £m
1999	180
2000	221
2001	260
2002	400
2003	470
2004	442
2005	454
2007	519
2008	538
2009	715
2010	774
2011	820
2012	866



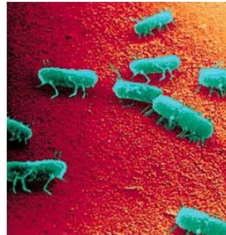
- 67% market value growth since 2007, 480% since 1999
- Still growing at >5% p.a.

**Protect the market by protecting consumers**



# Key Pathogens with respect to Fresh Produce

## **SALMONELLA**

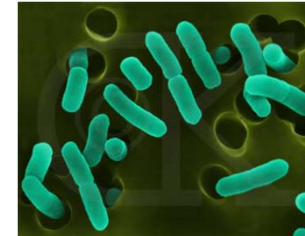


**Found in: raw foods, poultry, eggs...**

**Targets: all age groups, especially immunocompromised**

Symptoms	Fever, headache, vomiting, abdominal pain, diarrhoea
Onset time	12-48 hrs
Duration of illness	1-21 days
Destroyed	70°C for 2 mins
Long-term effects (sequelae)	Reactive arthritis, ulcerative colitis, aortic aneurism
Regulatory limit	Absence in 25g (pre-cut fruit & veg) (EC 2073/2005)

## **TOXIGENIC E. COLI (VTEC/STEC)**



**Highly infectious & pH tolerant. 4%**

**Mortality rate**

**Found in: sewage/manure, raw foods...**

**Targets: all age groups**

Symptoms	(Bloody) diarrhoea, abdominal pain, nausea
Onset time	12-24 hrs
Duration of illness	1-5 days
Destroyed	70°C for 2 mins
Sequelae	Kidney damage (HUS), ulcerative colitis
Regulatory limit	Absence in RTE foods (EC Gen Food Law 178/2002)





# Fresh Produce Issues

- International food safety incidents
  - 1996 fatal *E. coli* O157 outbreaks:
    - Red leaf lettuce (Illinois) – 27 affected
    - Radish sprouts (Japan) – 9,000 affected
- No CCPs for raw ready to eat (RTE) produce!

*“a step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level”*

- How to control?





# What makes produce ready to eat?

- **Manufacturer's/grower's risk assessment & food design: HACCP plan**
- **Appropriate field controls**
  - Minimise potential for contamination by zoonotic organisms
    - Control usage of organic waste in agriculture
      - No human-derived (sewage sludge)
      - Animal-derived (farmyard manures, abattoir waste) – no 'raw' FYM
    - Irrigation water quality: use low risk sources for high risk foods
    - Food handlers
  - CFA's Micro Guidance for Growers
- **Hygienic preparation and packing**
  - Prevent re-/cross-contamination
  - Washing - remove soil, exudate and associated organisms
  - CFA Best Practice Guidelines for the Production of Chilled Food
- **Limited shelf life**
  - Ensure peak quality and
  - Minimise opportunity for microbial growth
- **Chilled distribution and sale**
  - Minimise potential for microbial growth
- **Contracts and audits**
  - Commercial enforcement





# Fresh Produce Issues

- CFA drove ECFF VTEC & Agriculture study (1996-1999)
  - Identified the chain of contamination and control points
  - Presented to the EC in 1999 and SCF in 2000 => SCF risk assessment
  - Urged FSA to act
    - ⇒ FYM guidance... published 10 years later!
- CFA published science-based GAP standards (2002)
  - later taken up by UK major retailers
  - elements included in CODEX and FAO/WHO documents
- 11 years on... UK recalls/withdrawals mainly for Salmonella on imported herbs, seeds, leaf

**BUT no room for complacency...**



# UK-Reported Herb Issues



Year	Vehicle	Reported by	Origin	Pathogen	Notes
2013	Lemon thyme	UK	Morocco	Salmonella	RASFF week 3
2011	Rocket	UK	Italy	Salmonella	RASFF week 25
2009	Fresh hairy basil	UK	Thailand	Salmonella	RASFF week 23
2008	Various herbs	UK	Thailand	Salmonella	Sweet basil ( <i>Ocimum basilicum</i> ), water spinach ( <i>Pomoea aquatica</i> ), horopa leaf, peppermint ( <i>Mentha cordifolia</i> ) and Mexican coriander ( <i>Eryngium foetidum</i> ). RASFF week 46
2008	Various fresh herbs	UK	Viet Nam	Salmonella	RASFF week 39
2007	Coriander?	UK	?	E coli O157	12 cases. Associated by HPA with lemon and coriander chicken wraps <a href="http://www.hpa.org.uk/hpr/archives/2007/news2007/news3107.htm#ecoli">www.hpa.org.uk/hpr/archives/2007/news2007/news3107.htm#ecoli</a>
2007	Holy basil	UK	Thailand	Salmonella Brunei	
2007	Pre-packed fresh basil	UK, Denmark, Netherlands, (USA?)	Israel	Salmonella Senftenberg	>36 cases in England and Wales. Identified in survey and cases linked <a href="http://www.hpa.org.uk/hpr/archives/2007/news2007/news2207.htm#senftenberg">www.hpa.org.uk/hpr/archives/2007/news2007/news2207.htm#senftenberg</a>
1992	Coriander	UK	?	Salmonella typhimurium	



# Example Non-UK-Reported Herb Issues

Year	Vehicle	Reported by	Origin	Pathogen	Notes
2012	Lemon grass, Fresh coriander	Denmark	Thailand	Salmonella infantis	RASFF week 47, 46
2012	Laurel leaves, oregano, basil	Norway	Turkey	Salmonella Amersfoort	RASFF week 39
2012	chilled rucola	Slovenia	Italy	STEC	RASFF week 39
2012	Dried basil	Canada	Egypt	Salmonella	
2012	Cilantro (coriander)	USA	USA	Salmonella	
2012	Dried mint	Australia	Turkey	Salmonella	
2012	Basil leaves (numerous reports), cockscomb mint, houttuynia, green mint, coriander	Norway	Viet Nam	E coli, Salmonella Javiana, Salmonella Virchow	RASFF weeks 16-18, 20
2012	Fresh peppermint	Norway	Malaysia	E coli	RASFF weeks 16-17
2012	Oregano	Italy	Turkey	Salmonella Enterica	RASFF week 6
2012	Fresh coriander	France	Thailand	Salmonella Jerusalem	RASFF week 6
2011	Fresh rosemary	Denmark	Uganda	Salmonella Newport	RASFF week 49
2011	Peppermint, coriander	Netherlands	Thailand	Salmonella	RASFF week 49
2011	Mint leaves	Denmark	Thailand	Salmonella	RASFF week 47
2011	Rucola salad	Denmark	Italy	Campylobacter	RASFF week 47
	[7 more bacterial]				
2011	Fresh basil	Netherlands	Israel	Shigella sonnei	RASFF week 45
	[18 more bacterial]				
2010	Fresh herbs?	Sweden	Sweden	Cryptosporidium parvum	30 cases
	[7 more bacterial, 1 Cyclospora (USA)]				
2008	Fresh basil	Sweden	Sweden	Cryptosporidium	21 cases
	[11 more bacterial]				
2005	Fresh basil	Canada	Canada/Latin America?	Cyclospora cayetanensis	Cases: >40 Canada, ~300 USA
	[4 more – 2 protozoa, 2 bacterial]				



# Fresh Produce Issues

- **Most incidents due to breaches of basic hygiene controls in the field** (e.g. non-composted manure use, animals in crops/crop storage areas, contaminated irrigation water, food handlers)
  - **Identified by FSA Project B17007:** <http://preview.tinyurl.com/bexfqsd>
- HPA publicly stated (2007) that issues arising in the UK are **primarily linked to wholesale and imported produce**, which is **not subject to the growing and handling controls** implemented by the UK's retail prep produce supply chain
  - ⇒ **Need to protect UK plc by protecting consumers**
  - ⇒ **Requires full uptake of GAP by all growers of RTE crops**





# **CFA Fresh Produce-related Aims**

- **Strategic**
  - Wider uptake of science-based growing standards (Micro Guidance for Growers), highlighting sector differentiation
  - Resolve any terminology issues
  - Enhance Govt relationships & awareness of chilled sector's standards
  - Identify and engage with scientists researching into produce
- **Technical and regulatory**
  - Review key research reports & identify research partners
  - Track & influence research arising from strategic documents
  - Make input into development of non-/statutory requirements
- **Incidents**
  - Monitor & review causes, feed back into best practice, representation
- **Communications**
  - Make input into external communications on produce issues

# CFA Produce Activities



- 1996
  - *E coli* O157 fatalities linked to contaminated produce
  - European Chilled Food Federation (ECFF) VTEC WG formed
- 1997
  - CFA research priorities identified - VTEC and Cryptosporidium
- 1998
  - ADAS Safe Sludge Matrix (not yet in UK law?)
  - CODEX prepared produce and beansprouts codes begins
- 1999
  - CFA Water Quality Management Guidance published
  - ECFF VTEC & Agriculture Report presented to
    - EC (1999) & EC Scientific Committee for Food (2000)
    - EC SCF 2002 produce risk assessment





# CFA Produce Activities - WG



- 2000
  - CFA Produce WG established
  - FSA FYM guidance activity began
- 2002
  - CFA growing controls (MGG1) published
    - Field controls → AP (elements), retailers' protocols
  - CODEX leafy vegetables + sprouted seeds
- 2004
  - FSA sprouted seeds guidance meeting
  - Prepared produce site visits for senior FSA and HPA staff begin
- 2005
  - CFA chlorinated washwater protocol agreed
  - CFA/Defra/IFR pathogen attachment research (AFM234, 2005-8)
  - PSD site visit
  - CFA research priorities taken up by Defra
- 2006
  - Lobbying HPA & FSA begins for improved supply chain investigation in official outbreak/incident tracking



# CFA Produce WG



- 2007

- CFA Micro Guidance for Growers 2 (MGG2) published
- FSA FYM guidance published
- FSA reviews input: irrigation water and other hazards to produce
- UN FAO/WHO micro risk prioritisation of fresh produce published



- 2008

- CODEX code annex on leafy veg and herbs
- UN FAO/WHO Leafy Veg & Herbs Expert Group report inc CFA points
- Secured change in FSA's advice to consumers
  - no longer recommends re-washing of pre-washed leaf
  - FSA publicly recognised efficacy of the chilled prep produce sector's standards



- 2009

- CFA's MGG2 principles further incorporated into AP protocols
- Imperial College research – bacterial/plant traits & attachment
- Fresh produce terminology developed
- LACORS produce washing guidance
  - wash adjuncts not required to be labelled as additives by default





# CFA Produce WG

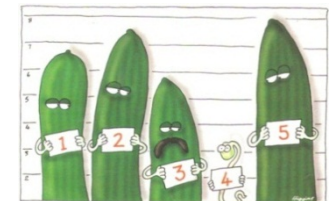
- 2010

- EFSA + ECDC recognise importance of GAP
- FSA roadshows promoting GAP for smaller growers
- CFA experimental attachment protocol developed
- CFA washing protocol published
- CFA decontamination efficacy assessment protocol published
- CFA RTE vs Ready to Wash rationale for produce agreed



- 2011

- CFA lobbied FSA to finalise stalled sprouting guidance (pre-O104 outbreak)
- *E coli* O104: 50 dead, 4000 ill, 900 HUS
- FSA project B17007: RTE fresh produce foodborne illness outbreaks and current UK fresh produce farming practices report published





# CFA Produce WG

- 2012

- CFA identified decontamination research partners
- Lobbied FSA on Forward Evidence Plan research needs
- FSA accepted CFA rationale for RTE produce
- WRAP promoting digestate in agriculture
  - ACMSF shares CFA's food safety concerns on RTE crops



- 2013

- FSA Virus Conference
  - Research priorities
- EU Veg-i-Trade project input
- EFSA Opinion on public health risk posed by pathogens that may contaminate food of non-animal origin
- CFA database: outbreaks/incidents potentially linked to produce
  - 1973 to date





# Guidance Available

- **Fields**
  - **CFA Microbiological Guidance for Growers**
    - English language (2007, 2002)
    - Spanish (2004)
    - Finnish (2005)
  - **CFA Pesticides Due Diligence guidance (2002)**
  - **Free web-based risk assessment tool** [www.safeproduce.eu](http://www.safeproduce.eu)
- **Factory**
  - CFA Best Practice Guidelines for Production of Chilled Food (4th ed, 2006)
  - CFA Pathogen attachment to produce protocol (laboratory) (2010)
  - CFA Produce wash decontamination efficacy assessment protocol (2010)
  - CFA Produce washing protocol (when using chlorine) (2010)
- **General**
  - 2<sup>nd</sup> ed CFA Water Quality Management Guidance (2005)
  - CFA Guidance on the use & interpretation of micro testing (2005)
  - CFA/BRC Guidance - Practical Implementation of EU Micro Criteria Regs (2005)
  - CFA/BRC/FSA Guidance - Shelf life of RTE food re: L. monocytogenes (2010)





***The centre of excellence for the chilled food industry***

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

freshly made every day

