Britain’s fresh milk professionals
Case study: Water saving opportunities in dairy processing.
Content

• UK: water and food
• 2012 drought risk areas
• Water and dairy processing
• Water and RWD
• Technology
• Process
• Behaviours
• The future
UK: Water and food

• Perception UK ‘wet’

• Drought an increasingly important issue

• Implications for food production, producers and consumers
UK: Water and food

- Product quality
- Product availability
- Costs
- Regulatory
- Reputation
‘Water is a vital resource for the food and grocery industry. The combination of limited availability and high demand, including the expected impacts of climate change, mean food companies are subject to increasing water-related risks.’

IGD (01/03/12)
Drought risk in 2012 across England and Wales

Environment Agency 2012
2012 Drought Risk Areas

• RWD sites
  – Recently updated
  – Which are at risk…
  – Now…
  – The future…
Water and dairy processing

• 2007 Envirowise audit
  – 1.3 litre water per 1 litre milk (industry average)

• 2008 Dairy Roadmap
  – 20% water reduction by 2015

• Dairy UK Benchmarking
  – Year on year benchmarking
  – Industry average now 0.87 litre water per litre milk
Water and RWD
How will we achieve this?

Processes

Technology

Behaviours

Britain’s fresh milk professionals
Technology

• Review new technology
  – What does it do?
  – How much can it save (water / costs)?
  – How much does it cost?
  – Which sites does it apply to?

• 5 year Water Management Plan
  – Regular reviews of progress
Technology

- Effluent treatment with water recovery.
  - Bridgwater designed for 50%
  - Droitwich Spa designed for 60%

- Recycle drive through vehicle wash water
  - 95% recycling at Manchester

- Heat pumps
  - Eliminates use of cooling towers
Processes

• Best practices
  – Cleaning In Place (CIP)
  – Improved maintenance

• Continuous improvement/lean thinking
  – Process mapping
  – Water balance exercises
  – Minimise waste
Behaviours

• Environmental Excellence Roadmap

  – Behaviours (not targets)
  – Training & Awareness
  – Measuring, monitoring & trends
  – Site management review
  – Action Log
Behaviours

‘There is a high level of awareness of water efficiency continually reinforced through training and workshops’

‘All departments have identified opportunities to reduce water consumption’

‘All staff have been trained on the environmental and financial benefits of water efficiency’

‘Water usage is discussed at management meetings’

‘A culture has been created whereby all staff are empowered to identify and progress water reduction opportunities’

Level 1

Level 2

Level 3

Level 4

Level 5
The future...

- Growing demand for water in UK
- Dairy Roadmap target of 30% water reduction by 2020
- Robert Wiseman Dairies
  - Not complacent
  - Culture of striving to be the best
  - Beyond 2015 Sustainability Strategy target?
Thank you