

# *Food Animal Initiative*

ENVIRONMENTS FIT FOR **ANIMALS** FIT FOR THEIR ENVIRONMENTS



‘Developing practical solutions for sustainable agriculture’

Management Practices Improving Animal Well-Being

*The Role Played by Retailers ....*

*... and other matters*



**Mike Gooding – Managing Director, FAI Farms Ltd**



## The FAI philosophy ...

**Values Lead  
Sound  
Independent  
Evidence Based Science**

At FAI we operate a range of fully integrated, commercially viable and animal welfare focused production systems. Animal welfare and more sustainable farming is at the heart of everything we do.



To find out more about our work go to [www.faifarms.co.uk](http://www.faifarms.co.uk)

**Values Lead  
Evidenced based science,  
research & technology**

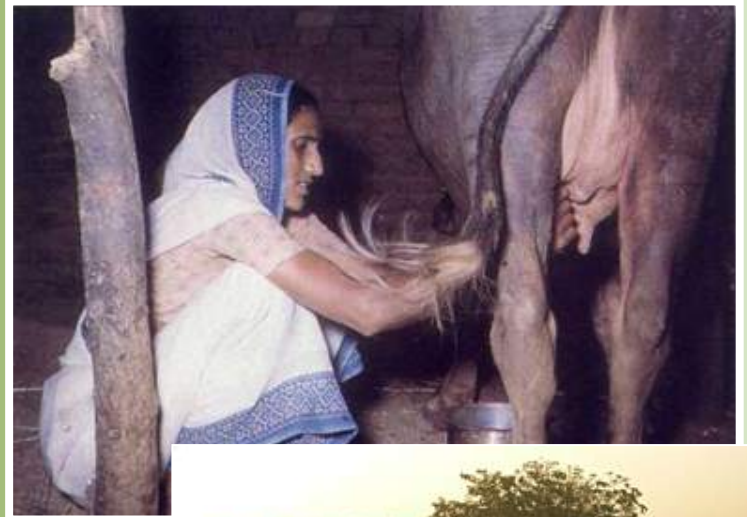


**.... a constant learning process**



## Livestock Farming ...

- Worldwide livestock farming employs **1.3 billion people**
- The livestock sector generates livelihoods for 1 billion of the **World's poorest** people
- Livestock products provide a 1/3 of humanity's **protein** intake
- But ... the dynamics are changing
  - Population growth
  - Diet preferences
  - Available resources



Livestock production is  
... **socially significant**





# Population

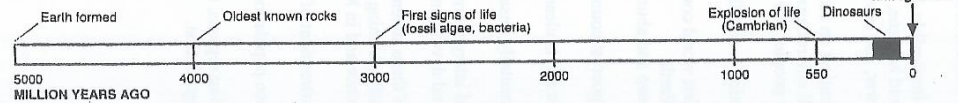
## WORLD POPULATION: FUTURE UNCERTAIN

NB: Total human environmental impact on Planet Earth = average impact per person x **number of people**

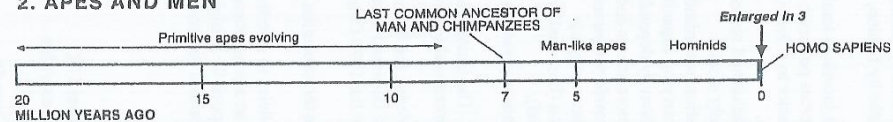
Natural resources (oil, water, soil etc) per person = total resources ÷ **number of people**

Current growth rates: 80 million extra people per year, 1.5 million per week, 10,000 per hour

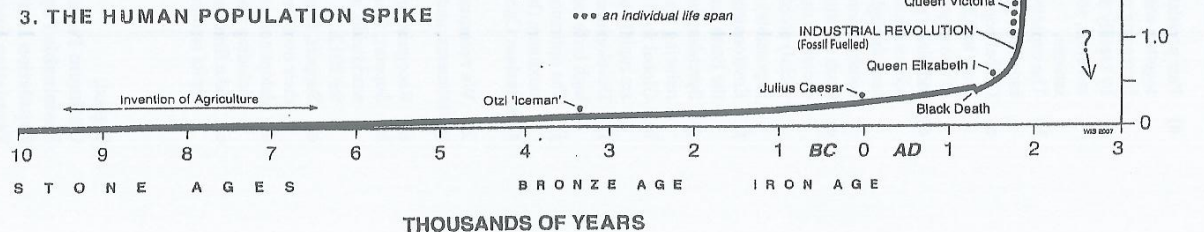
### 1. THE GEOLOGICAL RECORD



### 2. APES AND MEN



### 3. THE HUMAN POPULATION SPIKE







## Number of Animals used ...

- Pigs 24.5 million
- Cattle 5.6 million
- Sheep 16.3 million
- Chicken 896.6 million
- Poultry 57.2 million
- Other 0.6 million

In 2004 more than **52 billion**  
animals slaughtered Worldwide

*Source*

Food & Agriculture Organisation of the UN  
2004 data



Livestock consumption is  
**... a lot of animals**



# Ethics & Trust



*We need to be planning ahead to do the right thing rather than having to react to press . . . as we did with tuna fishing*

## Sustainability Made Easy



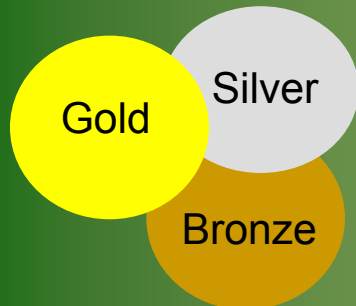
## Animal Welfare



## British Sourcing



## Labour Standards



## Traceability



## The British melon

From Garden of England, a sweet surprise

By Sean Poulter  
Consumer Affairs Editor

THEY'RE usually imported hundreds of miles from the sunny climes of France and Italy to bring a taste of the Continent to our dinner table. But thanks to warmer summers and improved farming techniques, British can now boast its own home-grown melons.

The Charentais variety will go on sale at Marks & Spencer for 11.99 from today.

They are being grown at farms in Kent and Hampshire in polytunnels and growing beds that were used to produce strawberries in the spring.

The melons are said to be superior in taste to the Brazilian melon – the only other variety of orange melon available at this time of year. The melons are among a number of crops, including asparagus and grapes, that previously would have been grown in warmer climates.

The better weather opens up the possibility of peaches, nectarines and apricots becoming a common sight on our shelves, as well as almonds, walnuts and pistachios which are normally grown in Mediterranean countries.

Assuredly, figs and olives, which rarely survive in the UK, are likely to perform better.

According to the Royal Horticultural Society it may even be possible to grow hardy varieties of the lemon and orange in future decades.

Warmer moist leaves, subterranean peppers, and roots will also become commonplace.

'Melons need heat to grow and the recent good summer' weather Britain has experienced has helped them to flourish in the UK.'

M&S fruit expert Bill Davies said producing home-grown melons had an environmental benefit as they no longer had to be flown in from countries hundreds of miles away. 'Those flights really are a bit of a carbon footprint,' he added.

The melons can be eaten as a refreshing dessert or as a light starter wrapped in Parma ham.

Mr Davies said: 'We know our customers like to buy British fruit and vegetables so this is a great way of bringing them a taste of their summer holidays in Europe with the added bonus that they are eating a delicious new fruit grown in the UK.'

[s.poulter@citygm.co.uk](mailto:s.poulter@citygm.co.uk)





We need to

Sustainability



Labour Star

Gold

Silver

Bronze

guardian.co.uk

## Quarter of meat sold in UK imported from nations weaker on animal welfare

Farmers and consumers demand greater import restrictions as a Guardian investigation reveals many bacon, pork and poultry products come from nations with lower animal welfare standards

Juliette Jowit

guardian.co.uk, Tuesday 16 February 2010 12.32 GMT

[A](#) [larger](#) | [smaller](#)



Chickens at a poultry farm in Brazil. Photograph: Orlando Kissner/AFP

At least one quarter of meat on sale in the UK comes from farms that do not have to meet national standards for animal welfare, a Guardian investigation has found.

All our organic food comes from selected organic farmers using natural methods that encourage local wildlife and minimise impact on the

sight 'on our shelves', as well as almonds, walnuts and pistachio nuts which are normally grown in Mediterranean countries. Similarly, flap and calves, which rarely survive in the UK, are likely to perform better. According to the Royal Horticultural Society it may even be possible to grow hardy varieties of the up and orange in future. Our salad leaves, asparagus, a pepper, and much more would be difficult to grow and the not good summer weather our food has experienced has helped to flourish in the UK. All that experts say is that during homegrown melons had not been in most countries of origin away. These are usually many of a 'win-win' he added. 'In melons can be eaten as a eating dessert or as a light for wrapped in Parma ham. 'Darnes said: 'We know our customers like to buy British fruit and rather on this is a great way of giving them a taste of their country. 'In Europe with the ed house that they are eating a course new fruit grown in the



aving to

Sourcing



## British melon



1 Society it may even be possible to grow hardy varieties of the up and orange in future. Our salad leaves, asparagus, a pepper, and much more would be difficult to grow and the not good summer weather our food has experienced has helped to flourish in the UK. All that experts say is that during homegrown melons had not been in most countries of origin away. These are usually many of a 'win-win' he added. 'In melons can be eaten as a eating dessert or as a light for wrapped in Parma ham. 'Darnes said: 'We know our customers like to buy British fruit and rather on this is a great way of giving them a taste of their country. 'In Europe with the ed house that they are eating a course new fruit grown in the

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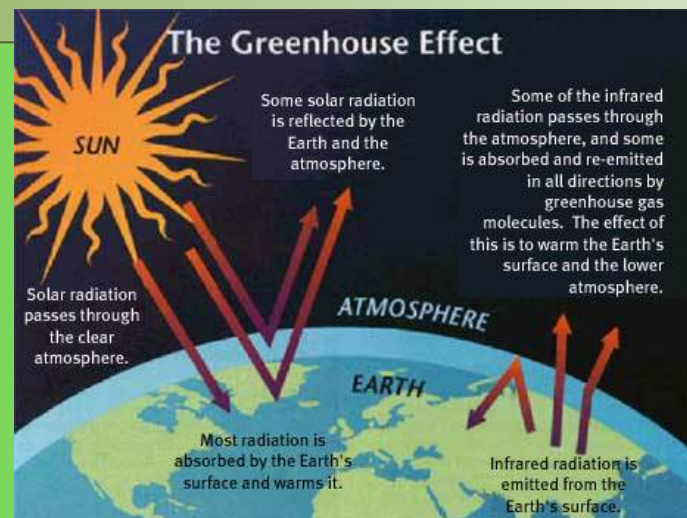


# Environmental Impact ...

The total global contribution of agriculture to climate change is estimated to be equivalent to between:

**8.5 -16.5 billion tonnes of CO<sub>2</sub>**  
or between  
**17- 32% of all human-induced greenhouse gas emissions**

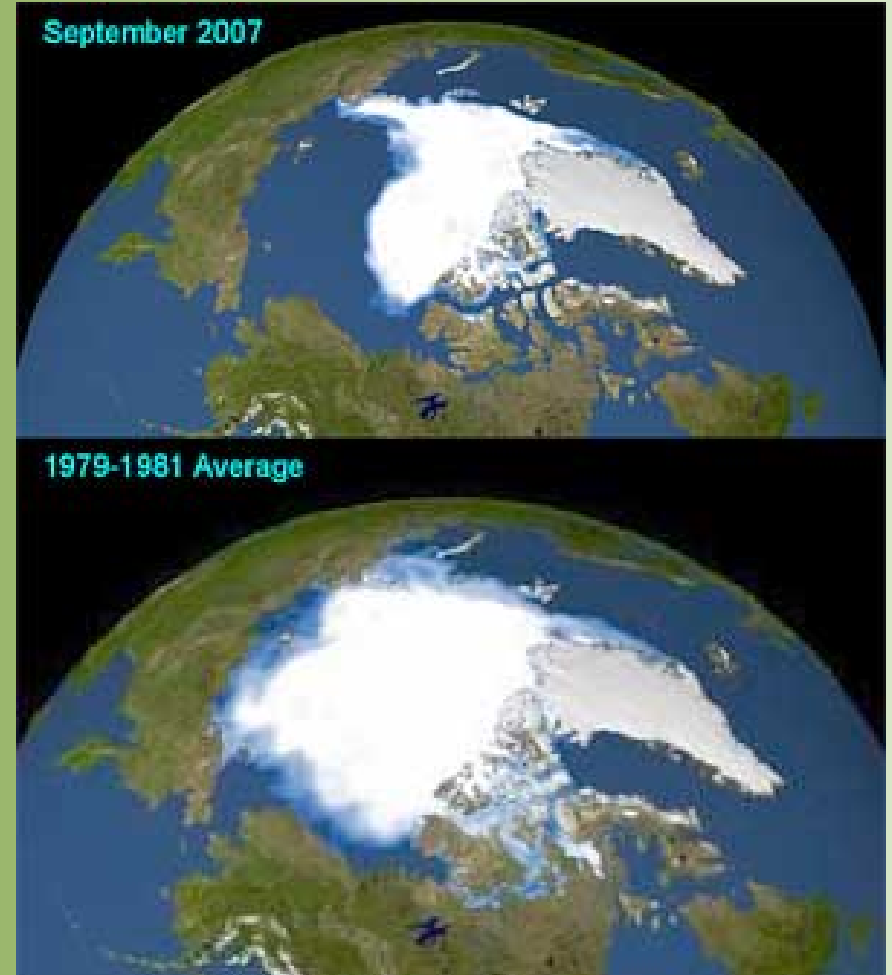
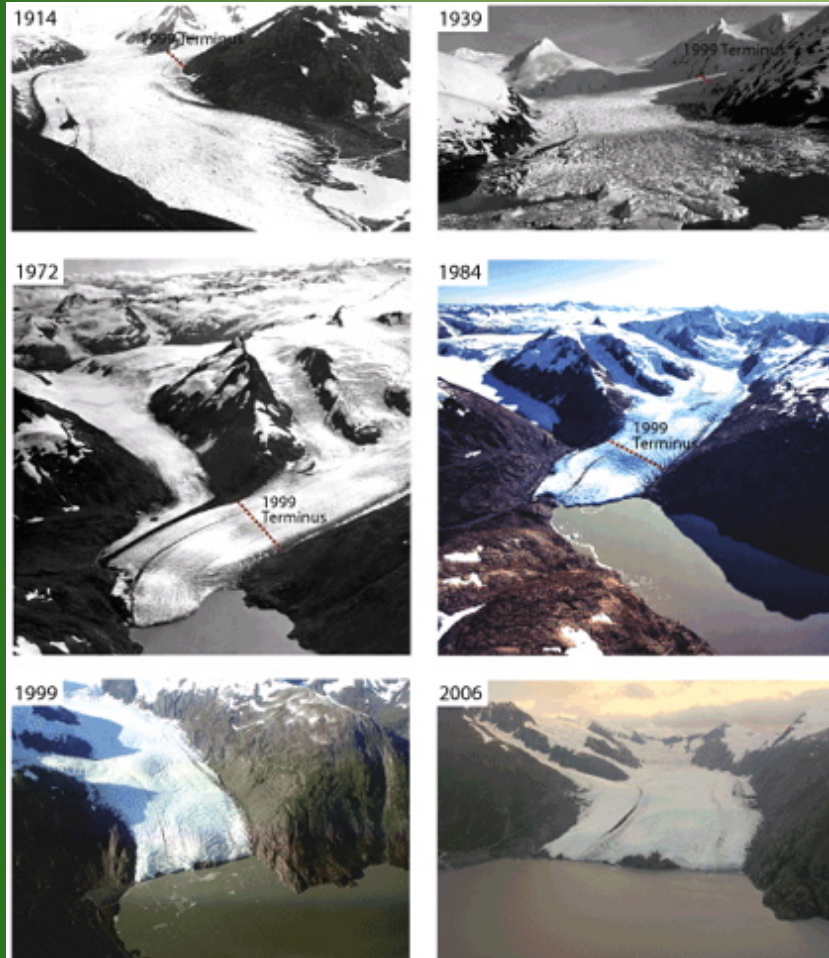
- \*deforestation
- \*methane
- \*fertilizer use
- \*water use
- \*biodiversity loss



Livestock production has both  
... impacts & benefits



# Climate Change – fact or fiction





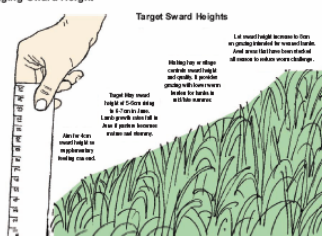
# Helping producers ...

## Lamb Action for Profit Better Returns from Grazing Management

### Stocking rates for Well-Managed Grassland

Stage of season	Stocking rate (kg liveweight per ha)	Equivalent number of 75 kg ewes per ha
Early (October)	2,500	33
Mid (Nov)	1,500	20
Late (August/September)	1,000	13

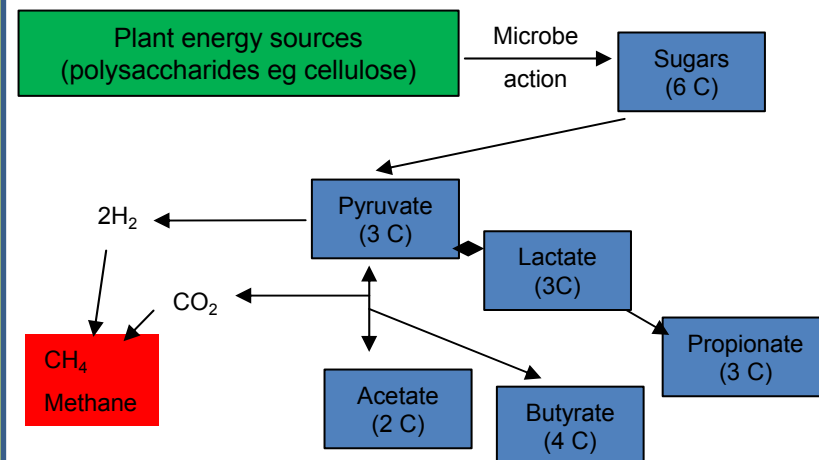
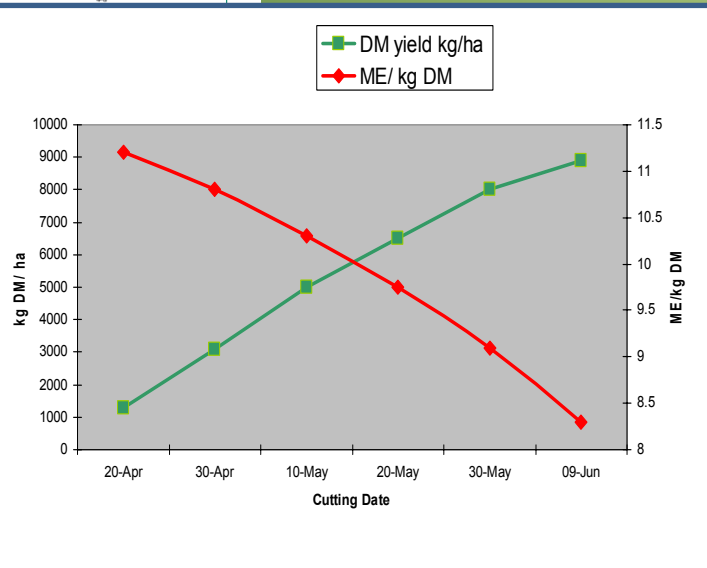
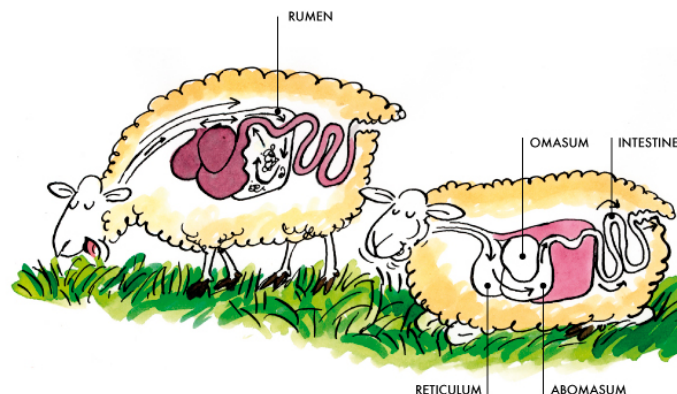
### Managing Sward Height



### Recommended Sward Heights for Sheep Under Continual Grazing

Stage of season	Target height
Dry ewes	3-4
Overseeded pasture (moderate growth rates)	4-5
Overseeded pasture (high growth rates)	5-6
Overseeded pasture (low growth rates)	4-5
Overseeded pasture (very low growth rates)	3-4

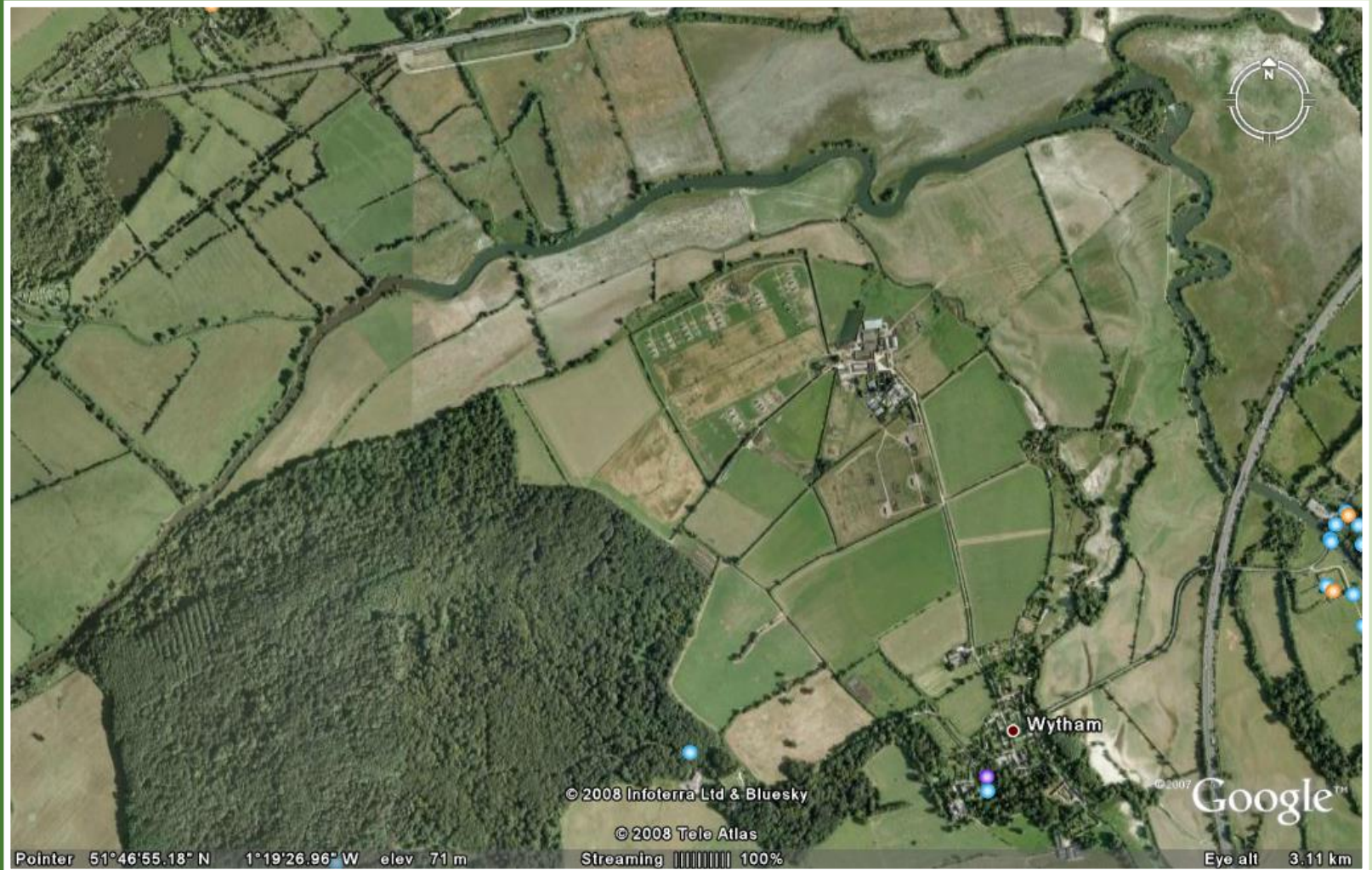
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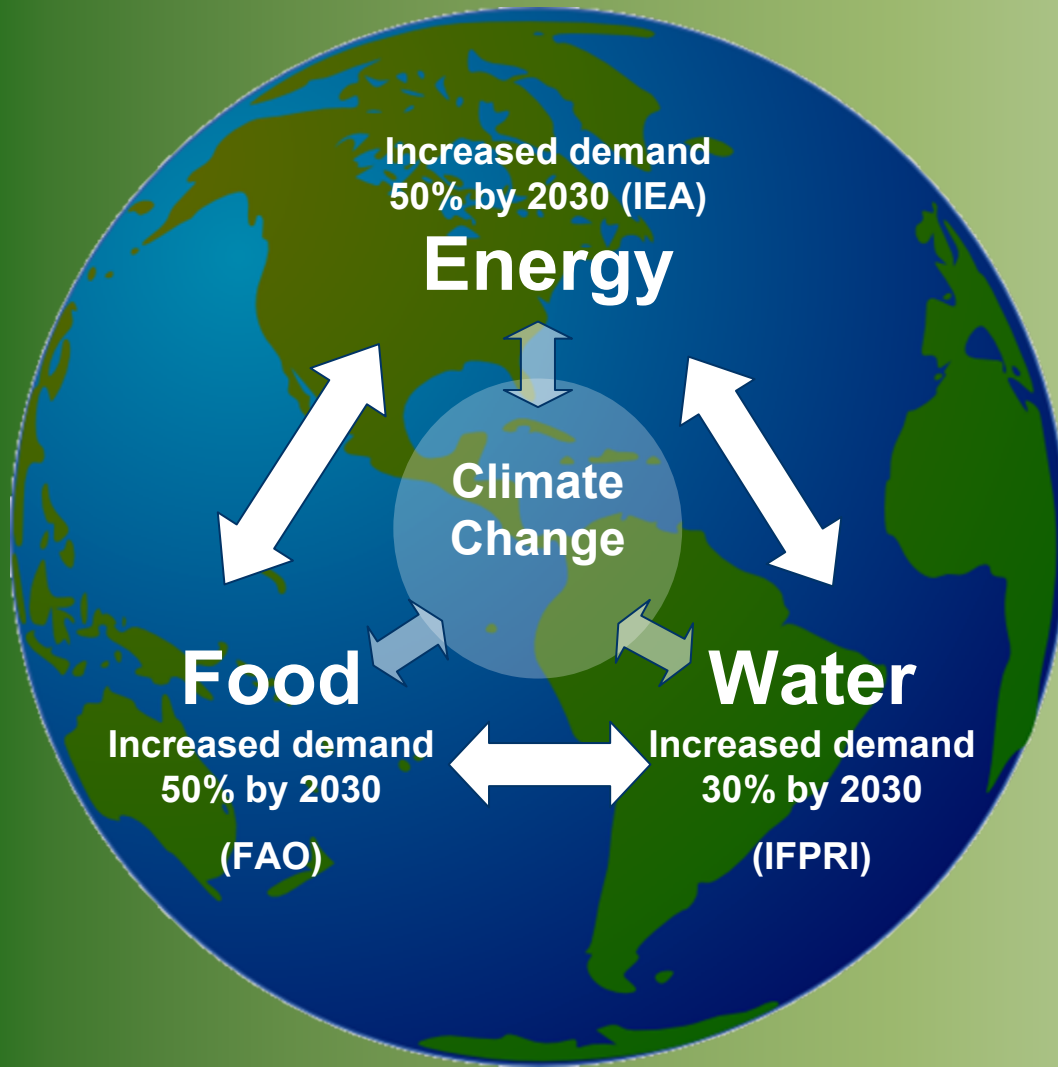


# Climate Change – experience





# The Perfect Storm



1. Can 9 billion people be fed equitably, healthily and sustainably?
2. Can we cope with the future demands on water?
3. Can we provide enough energy to supply the growing population coming out of poverty?
4. Can we do this whilst mitigating and adapting to climate change?



## Simplistic arguments .....

viewpoint

# Welfare vs carbon footprint?

By **Dr Grant Walling**, JSR director of research and genetics

Global warming and reducing carbon output from food production is likely to be high on the Government's agenda in 2010, as the recession and MPs' expenses have been in 2009. It's an issue that affects all of us and, like the collapse of the economy, where certain people were accused of irresponsible borrowing, there are decisions for consumers and the supply chain to make today that will have consequences for tomorrow.

Most of the differentiations we see in food products, from budget or standard tier through to premium and luxury products, have been associated with changes that can be made to the production system to improve product quality. Higher quality and more expensive premium meat products have traditionally been associated with high welfare systems.

Outdoor reared, free-range, greater room to

quent greater impact on the environment. Animals given more space to roam produce fewer kilograms of meat per square metre of land and animals grown more slowly require greater maintenance, produce more methane and ammonia and must be provided with greater amounts of feed and resources during their longer life.

People are more aware of environmental issues than ever before. There is a con-

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**"The agriculture industry, with support from the Government, should be investing in educating consumers and retailers about the environmental impact of commercial livestock production"**

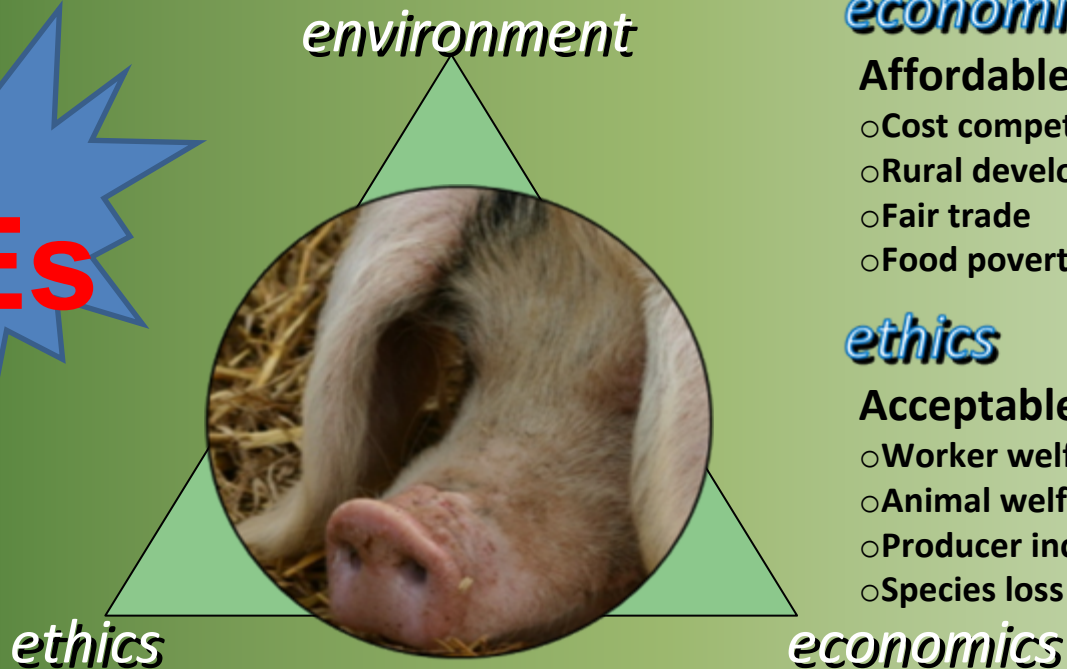
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# The 3Es ...

No longer can individual elements be considered in isolation  
... all 3 have to 'stack-up'



## *environment*

### **Available Resources**

- Land (while supporting ecosystems)
- Water
- Soil
- Agro-technologies
- Energy

## *economics*

### **Affordable Food**

- Cost competitive raw materials
- Rural development
- Fair trade
- Food poverty

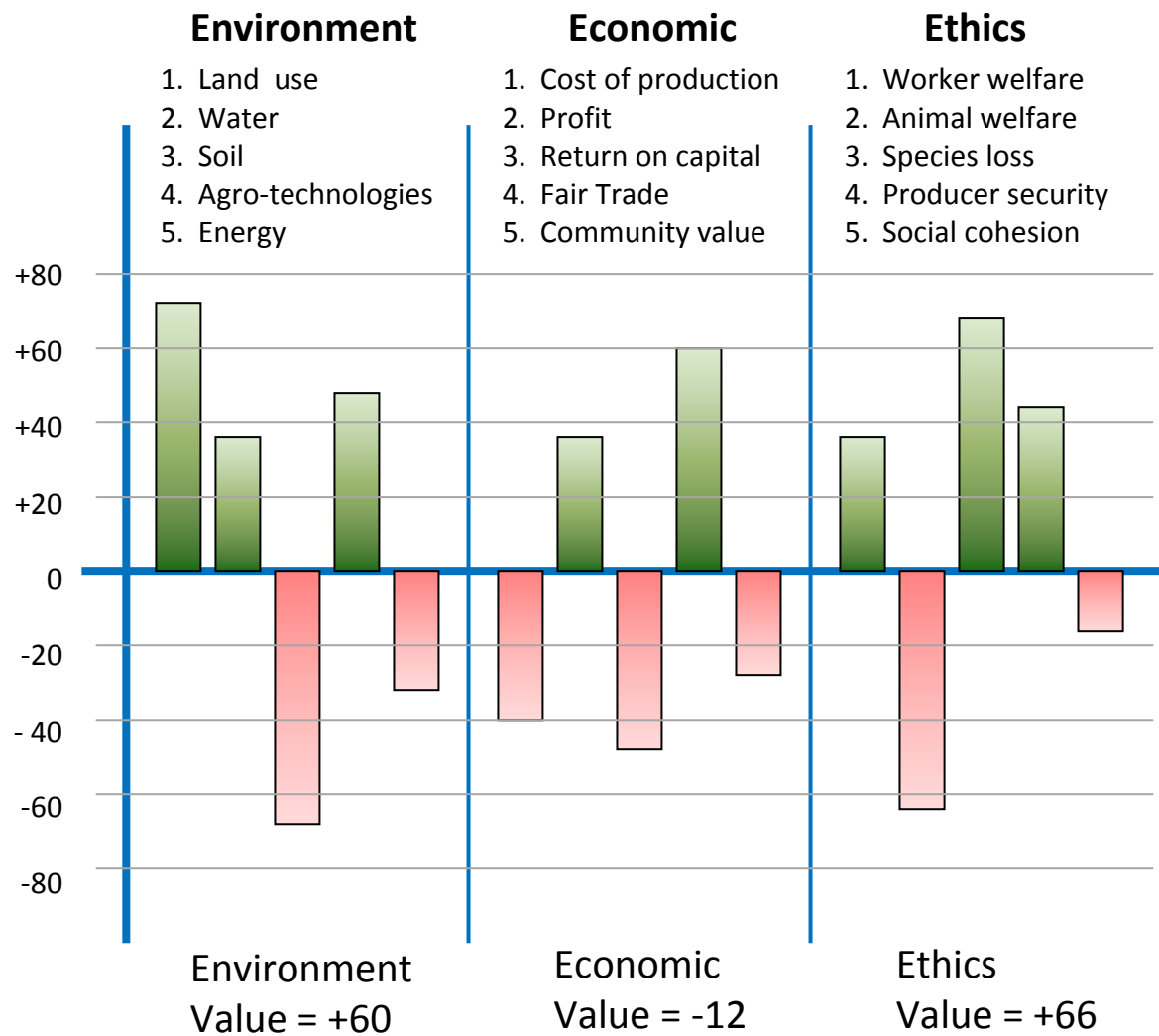
## *ethics*

### **Acceptable Production Methods**

- Worker welfare
- Animal welfare
- Producer income security
- Species loss



# 3E Index



**Total 3E Index of +114**



## 3E Index

### Environment

1. Land use
2. Water

### Economic

1. Cost of production
2. Profit

### Ethics

1. Worker welfare
2. Animal welfare

waste

# Resource efficiency is a 'secret weapon' in cutting business costs and hitting carbon targets

says **Richard Swannell**, director of retail and organics at WRAP. By **Caroline Bloor**

At our recent annual conference, we unveiled some new research which shows how resource efficiency can help the UK to meet its climate change targets.



more important that end users have complete confidence in the product. A recent survey found that an encouraging 36% of compost produced in the UK from source segregated waste is

and to recycle more things, more often. This will save money for business and reduce our impact on the environment. Central to the strategy is the Courtauld Commitment – a voluntary

Value = +60

Value = -12

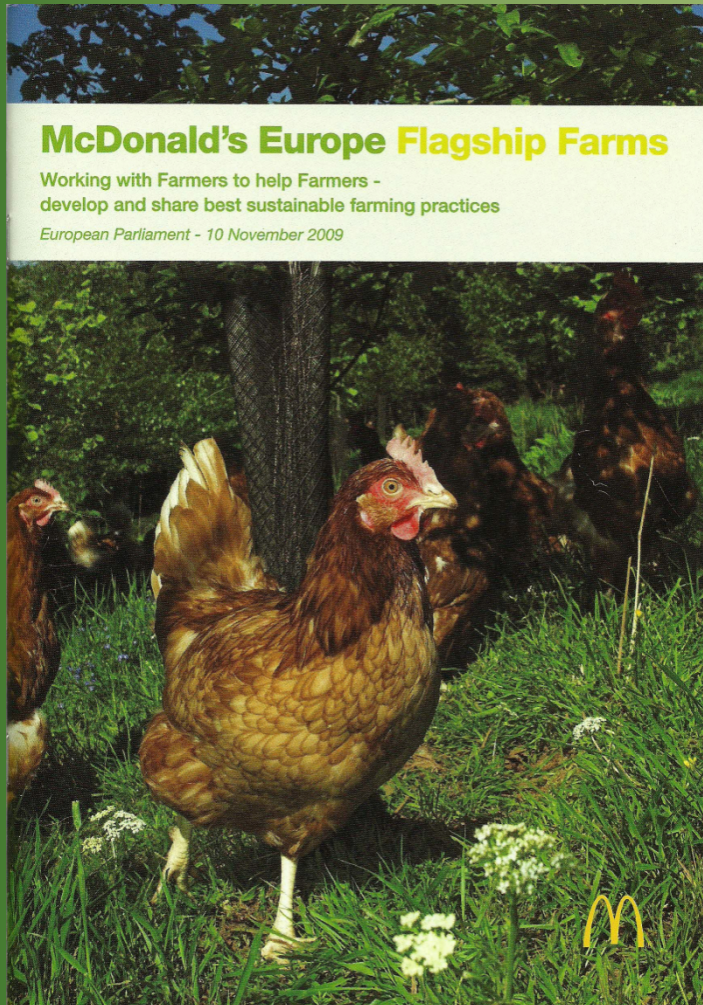
Value = +66

**Total 3E Index of +114**





# Demonstrating excellence ...



Case study: detailed information on [www.flagshipfarms.eu](http://www.flagshipfarms.eu)

## Dairy – FrieslandCampina, Haanmeer 3, Koudum, Holland

This case study shows how dairy production can be undertaken in a manner which maximises the welfare conditions of the cows, whilst reducing the impact on the environment.

### Key areas of good practice:

#### • OPERATIONS

With the introduction of robotic milking (over 10 years ago) milk yields have increased and it allows the cows "Free Choice" as to when they are milked. As for staff, repetitive strain injury is eliminated through not having to milk 14 times per week and by being released from this routine allows increased social/family time.

#### • INPUTS

Dual chamber water beds improve cow comfort and reduce injuries such as swollen hocks/lesions. Research shows that cows need to lie down for 10 to 12 hours per day (Albright, 2003) so this comfortable lying environment is of paramount importance. Another important aspect of the water bed is that it reduces the quantity of bedding required per cow and remains cleaner than other bedding types.

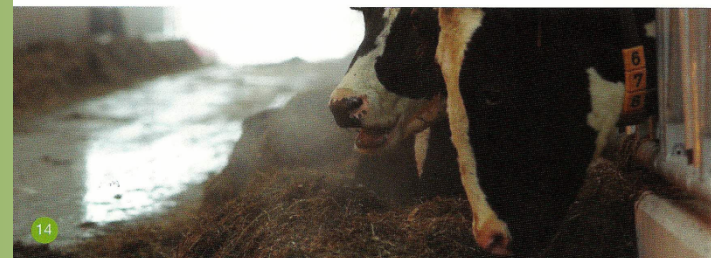
#### • OUTPUTS

The grooved anti-slip floor reduces emission of ammonia from the slurry and with hourly cleaning/removal can give a reduction in ammonia emissions of 30%. The grooved anti-slip flooring gives improved cow comfort which allows the cows to show natural behaviour.

ET

EN

Modern, well designed facilities enable the cows to demonstrate their natural behaviours and free choice in a safe environment. The floor design of the facilities also minimises ammonia emissions.





## Using Natural Genetics ...



Highly selected,  
extreme genetics  
requiring routine  
surgical intervention  
at calving

Natural calvings from  
cows selected for  
maternal traits with low  
risk of calving problems

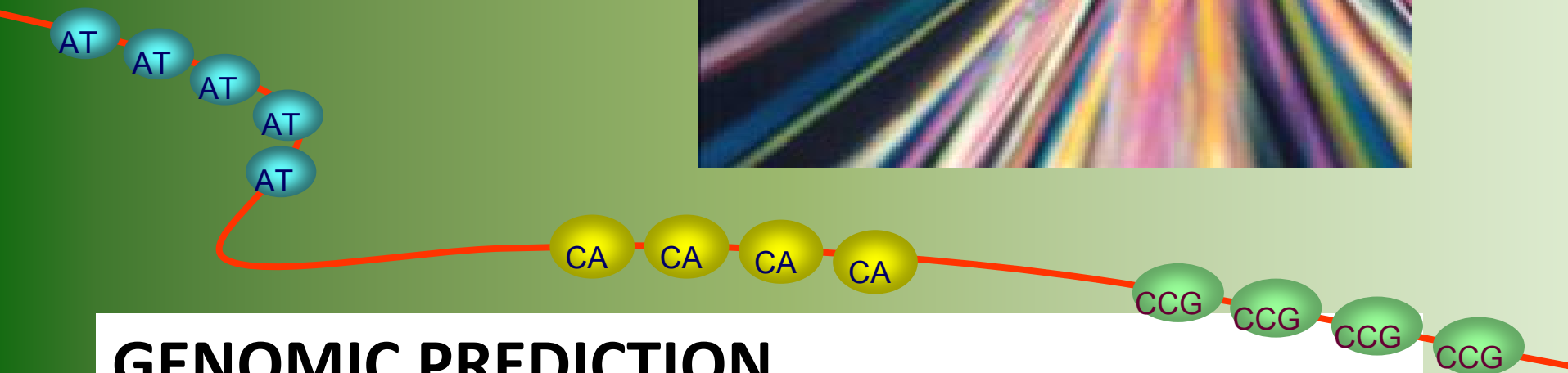
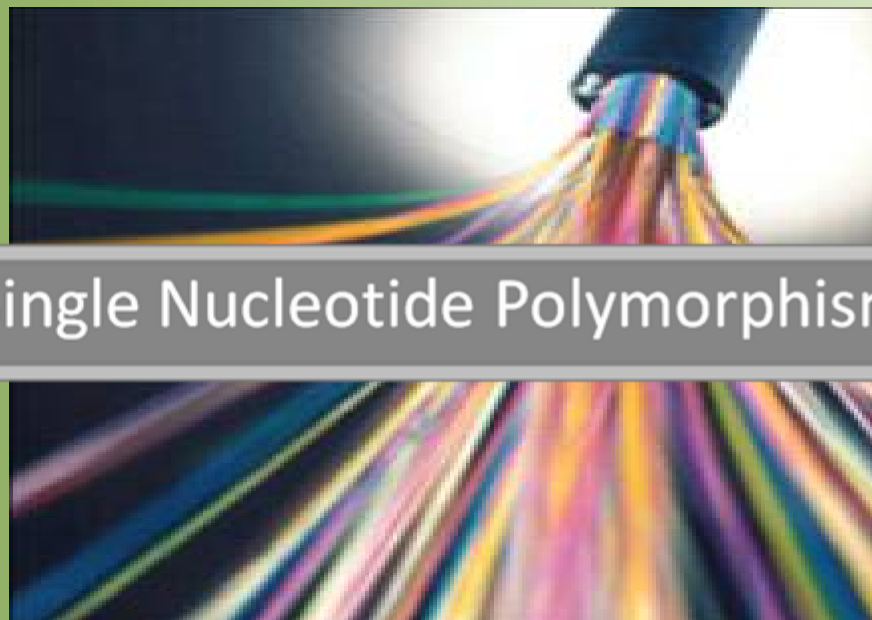




# Genetic development ...

**SNP**

• Single Nucleotide Polymorphism



**GENOMIC PREDICTION ....**

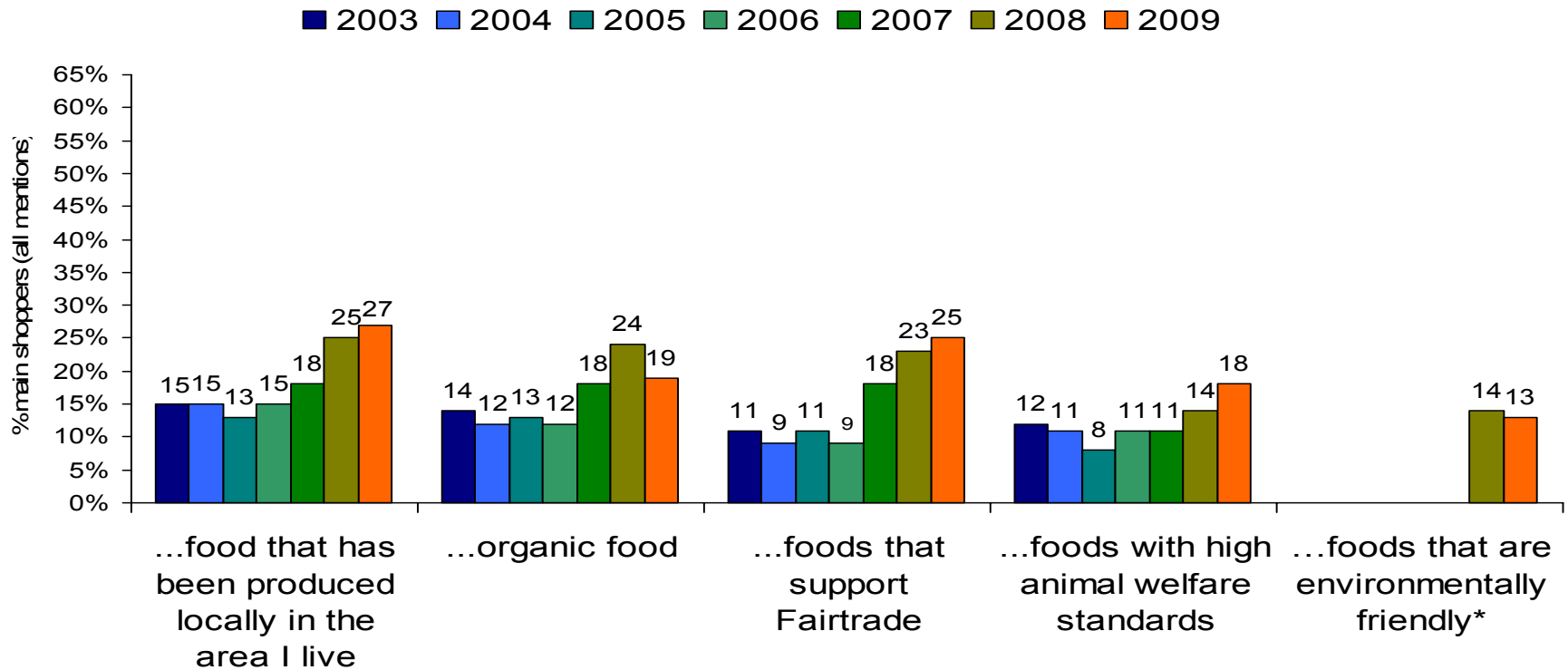
**..... Is it delivering?**





# Buying ethics ...

## Specific food purchases –environmental and ethical (Source – IGD, 2009)

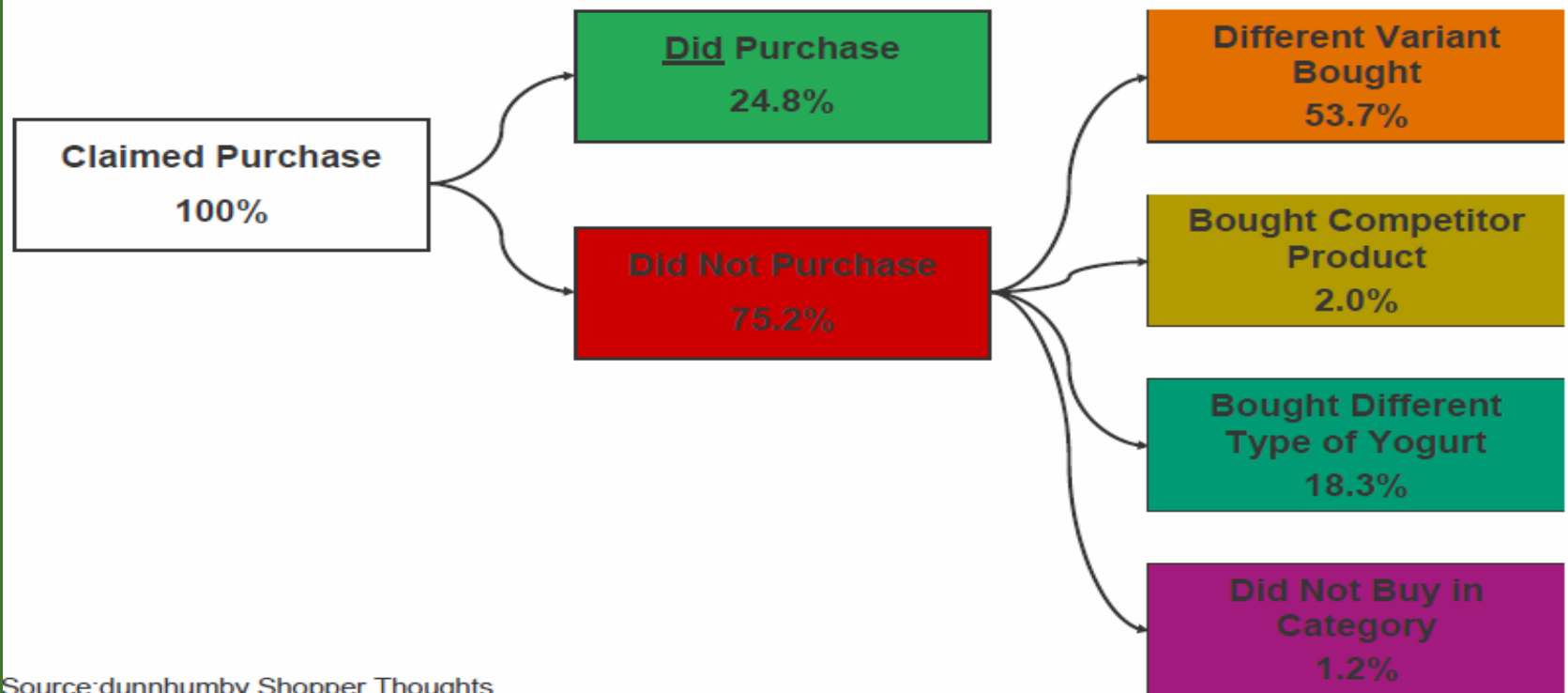






## Beware consumer research ...

Shoppers don't always do what they say –  
Tesco healthy living Greek yoghurt

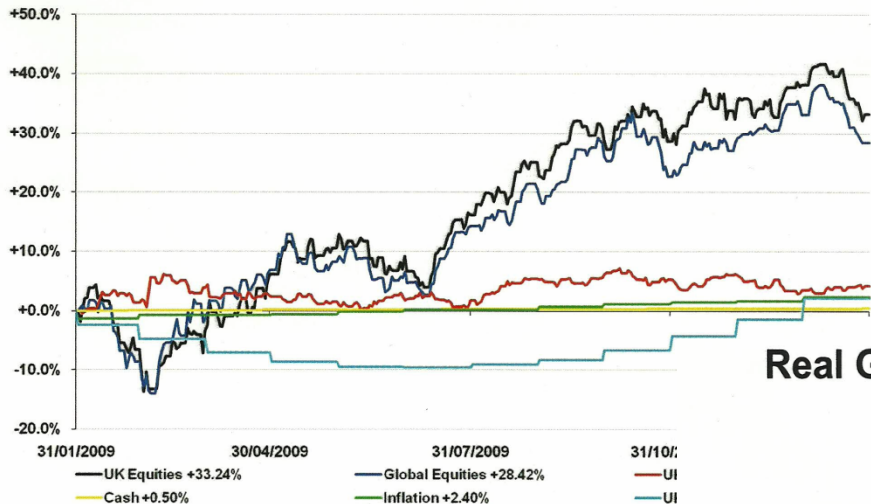


Source: dunnhumby Shopper Thoughts



# What's the economy doing?

## Market review – 12 month returns 31 January 2010

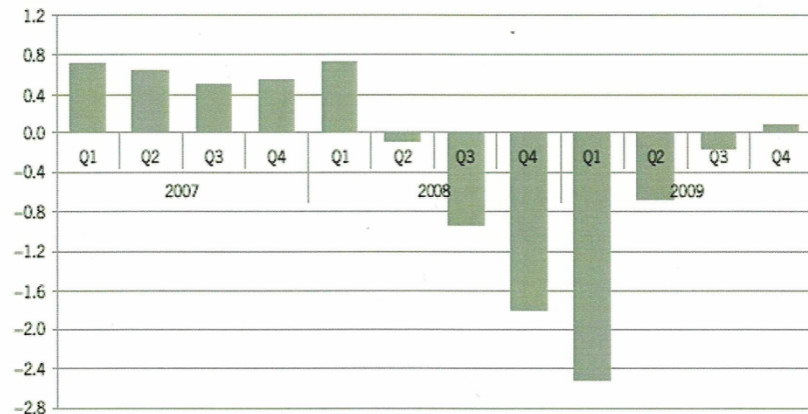


Sources: Bloomberg, IPD: FTSE All-Share Total Return Index, FTSE All-World Total Return Index, IPD Monthly Total Return Index\*, 7 Day LIBID, Retail Price contemporaneous picture).

Page 3

- Low interest rates
- Low inflation
- Slow recovery
- Invest in land?

## Real GDP (% change on previous quarter)

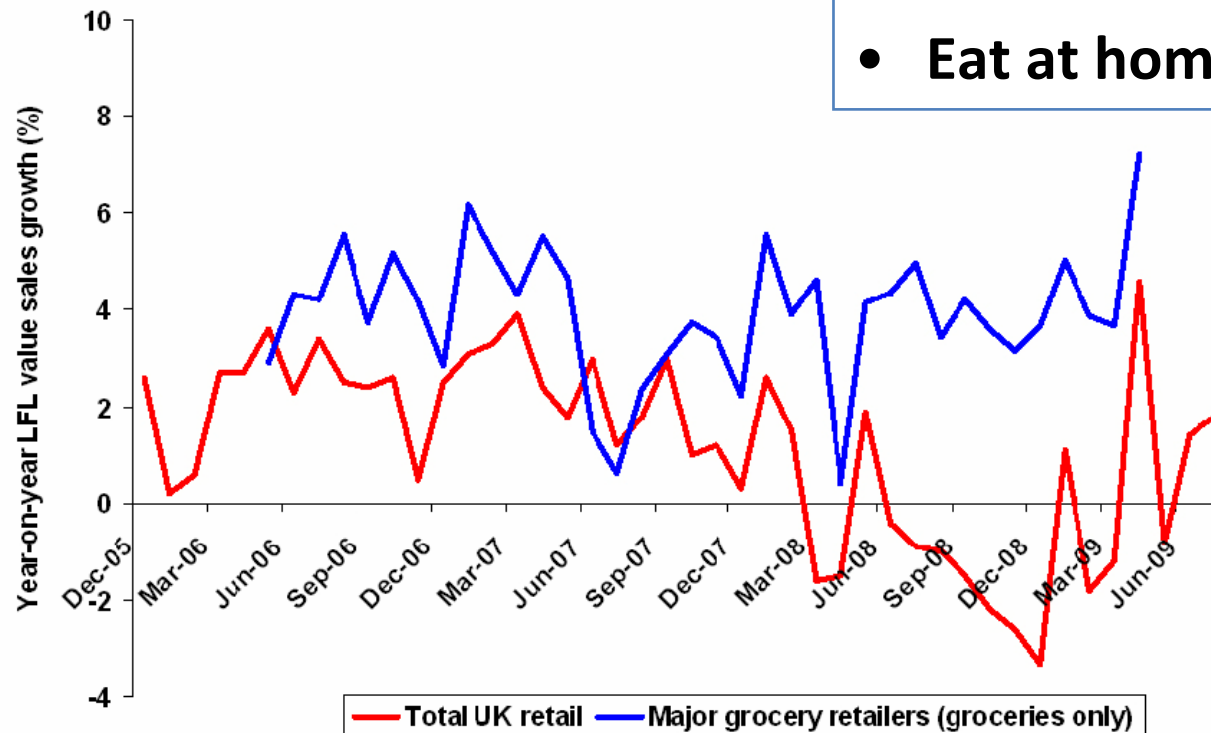


- How close did we get?
- Quantitative easing



# Retail food sales ...

- Grocery robust
- You have to eat!
- Eat at home



Source: BRC / IGD Research, July 2009

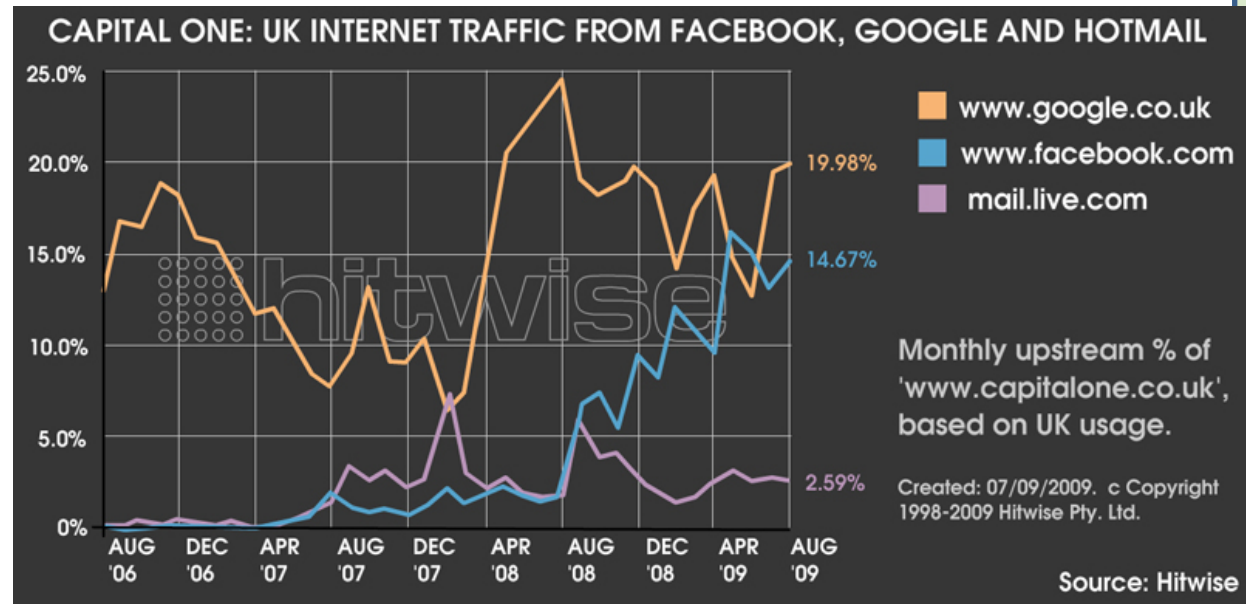
12 week embargo applies to grocery sales data



## Communication revolution ...

### The Facebook Revolution – 350 million users

- The Average user has 130 friends on the site
- More than 10 million users become fans of pages each day
- Every month, more than 70% of Facebook users engage with platform applications
- There are more than 64 million active through their mobile
- The fastest growing demographic 35 +







# *Food Animal Initiative*

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**Thank you.**



**Mike Gooding – Managing Director, FAI Farms Ltd**