



ASSOCIATE PARLIAMENTARY FOOD & HEALTH FORUM

Is Organic Food Healthier?

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10th July 2007



The NFU champions British farming and provides professional representation and services to its farmer and grower members



Organic farming – contributing to the development of British agriculture

- It's a small but important part of the system
- It's had a high growth rate in recent years and is a great success story
- It provides economic benefits to farmers through increased premiums
- It is environmentally sound although the debate continues about carbon emissions and energy efficiency



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Organic farming – contributing to the development of British agriculture

- The NFU & SA both share similar objectives – local food and strong markets for British producers
- Factional fighting benefits no-one. It turns consumers off and angers farmers who may otherwise consider converting
- **But is organic food actually better for you? The evidence is inconclusive either way**



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Nutrition and Quality

- **From a nutritional perspective, there is currently not enough evidence to recommend organic foods over conventionally produced foods.**
Williamson, CS, British Nutrition Foundation 2007
- **The available evidence shows that the nutrient levels and the degree of variation are similar in food produced by both organic and conventional agriculture.**
Food Standards Agency 2006



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Flavonoids: Ten-year Californian study found higher levels in organic tomatoes

- Benefits of higher levels of flavonoids not yet fully established nor is it known if eating more of them is healthier
- However, FSA say 'there is accumulating evidence that dietary flavonoids may partially explain cardiovascular disease benefits of increased fruit and vegetable intake.' The FSA are running a three-year study to investigate this further
- Use of inorganic manure (implied as being behind increased levels of flavonoids) is not limited just to organic production systems; adding higher quantities of organic manure may reduce any increase in flavonoids
- The research focussed on Californian tomatoes. Can or should these findings be extrapolated to other crops grown in other regions?



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Nutrition and Quality

- Differences in quality of food in organic/non-organic comparisons have been attributed to a range of factors:
 - Maturity at harvest
 - Storage
 - Transport
 - Soil conditions
- Nutritional analysis and comparison of foods tends to give inconclusive or contradictory results



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Nutrition and Quality

- **Given the wide variety of ways in which even organic farms are run it is unlikely that any standard guarantee for food quality can be produced. Organic is a mechanism or process; it does not guarantee the product.**

Trewevas, A, 2004



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Food Safety

- **With respect to other food hazards, such as endogenous plant toxins, biological pesticides and pathogenic microorganisms, available evidence is extremely limited preventing generalized statements. Also, results for mycotoxin contamination in cereal crops are variable and inconclusive.'organic' does not automatically equal 'safe.'**

Magkos *et al*, 2006

- **Data concerning possible impacts on animal and human health of diets comprising organic or conventional produce are extremely sparse.**

Williams, CM, 2002



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Antibiotics & Disease Resistance

- Recent claims that agricultural use of antibiotics has led to a new form of resistant *E. coli* associated with dangerous infections in humans
- Defra assert that strains of *E. coli* found in humans and animals are distinct from one another and that clinical problems in humans are associated with human use of antimicrobials. This is backed up by the WHO



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Antibiotics & Disease Resistance

- More recently MRSA has been found in EU meat, possibly as a result of ban of antimicrobial growth promoters and corresponding increase in use of therapeutic antibiotics
- There is no evidence that livestock acts as a reservoir for MRSA
- WHO recognises that disease resistance in humans is as a result of medicine use by humans
- MRSA has not been found in UK livestock
- FSA aware of the issue and is maintaining a watching brief



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Antibiotics & Disease Resistance

- The NFU actively encourages and supports the responsible use of antibiotics in agricultural and is a member of the [RUMA](#) (The Responsible Use of Medicines in Agriculture) Alliance to ensure the safe and responsible use of medicines on farms. Antibiotics are used in conventional and organic production systems



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Pesticide Residues

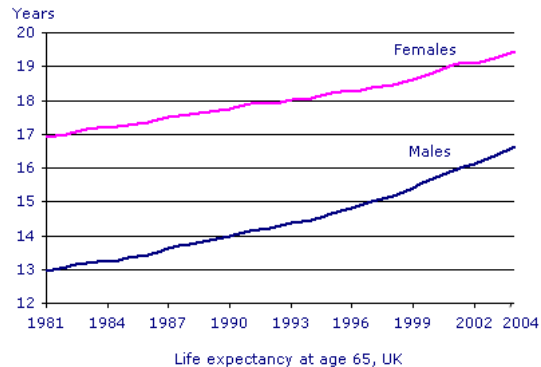
- Fewer residues on organic than non-organic
- UK has very stringent PRC mechanisms for monitoring and withdrawal
- 2/3rds of food tested had no residues, majority of remainder had residues <MRL
- MRLs are measures of Good Agricultural Practice and are set far below safety limits
- No evidence of 'cocktail effect'



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Life expectancy at 65



Source: Office for National Statistics and Government Actuary's Department

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Conclusion

- **Thus, it is not clear that, overall, organic foods are safer than conventional foods.**
Bonti-Ankomah, S *et al*, 2006
- **...despite any differences, a well-balanced diet can equally improve health regardless of its organic or conventional origin.**
Magkos *et al*, 2003
- **Comparison of health outcomes in populations that habitually consume organically or conventionally produced foods are flawed by the large number of confounding factors that might contribute to the differences reported.**
Trewevas, A, 2004
- **...the current scientific evidence does not show that organic food is any safer or more nutritious than conventionally produced food.**
- FSA 2003

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