



LIMERICK INSTITUTE
OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA
LUIMNIGH

Organic Food – Research

Dr Tracey Larkin

Organic Research

1. International Conference on Organic Food Quality & Health 2011.
2. LIT Organic Food Research an IRCSET funded project - Conventional v Organic Fruit & Veg
- Development of a Bio-fingerprint.
3. Sensory Evaluation at LIT.

International Conference on Organic Food Quality and Health Research

18 - 20 May, 2011
Prague, Czech Republic



Criteria - Process



Environment
Soil & Atmosphere
Pesticides
Carbon footprint
Sustainability

Criteria - Product



Quality – health (Anti-oxidants)
Quality – sensory (Taste, texture)

Organic Fingerprint!



International Conference on Organic Food Quality and Health Research

18 - 20 May, 2011
Prague, Czech Republic



Organic v Conventional finger-print

Sensory:

Open & blind studies
Taste
Texture (cell integrity)

Pesticides
Nitrates



Bioactives:

Multi-elemental:
Antioxidants

Polyphenols
Carotenoids
Flavanoids
Fatty acids

International Conference on Organic Food Quality and Health Research

18 - 20 May, 2011
Prague, Czech Republic



- **Organic finger-print** – conclusive method of determining the difference between organic and conventional food.
- Keep a critical watch on processing (**sensory**), because it has a crucial effect on maintaining **quality**.
- Organic = **Minimal processing!**
- **Communicate** health & sensory benefits to **consumers**.
- **Introduce** health & sensory attributes into **marketing strategies**.

PUBLICATION PENDING

**Journal of the Science of Food and
Agriculture**

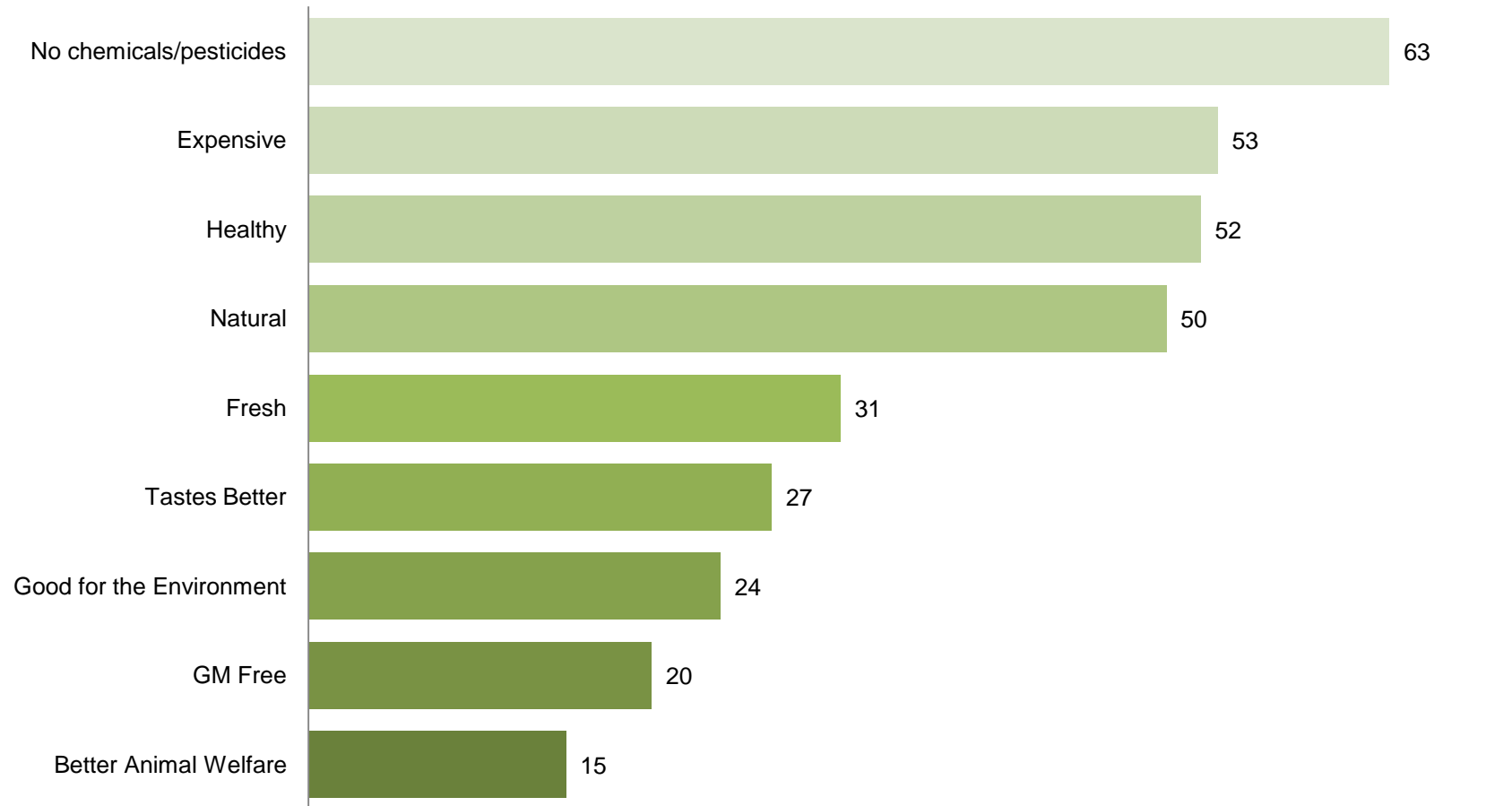
**The Irish Organic Food Market: Shortfalls,
Opportunities and the Need for Research.**



**LIMERICK INSTITUTE
OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA
LUIMNIGH**

What 'organic' Means to Irish Consumers

% of n=1000



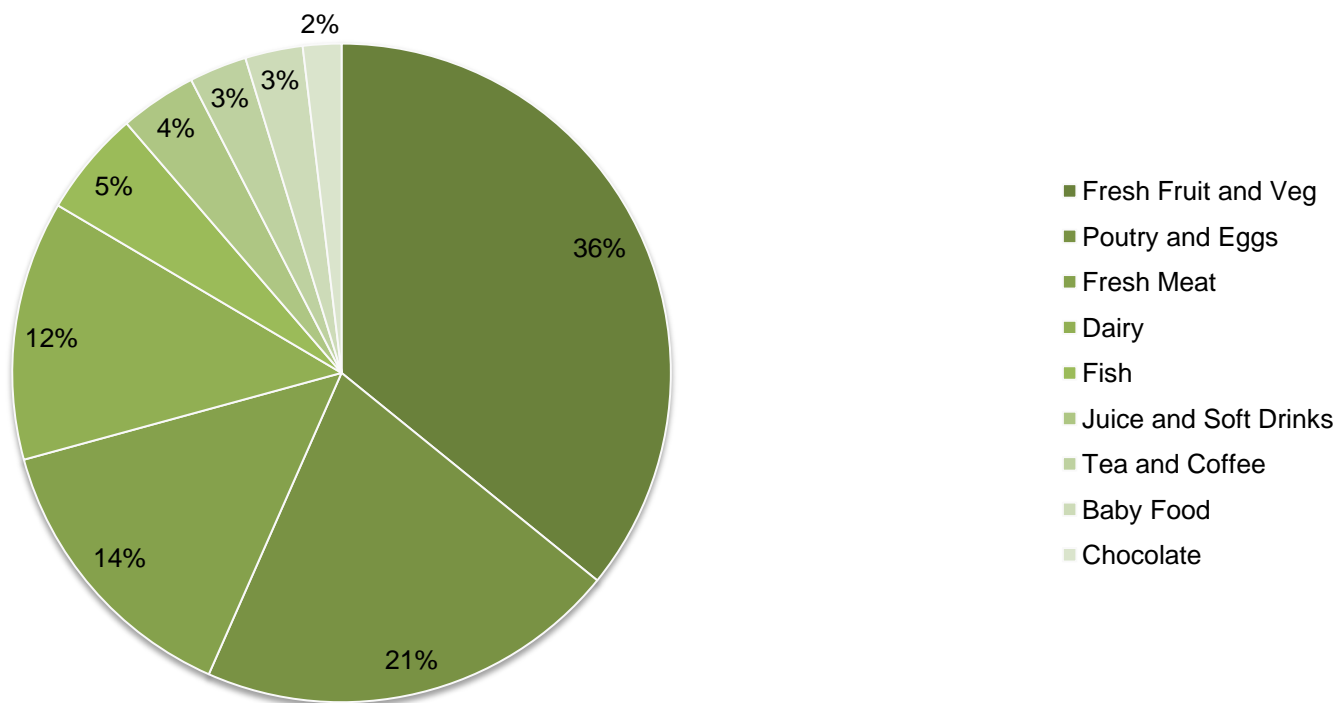
Responses of 1000 respondents when asked; what words would you associate with the term 'organic'? (Adapted from An Bord Bia 2008)

© 1998 Bridget Crowell
© Original Artist
Reproduction rights obtainable from
www.CartoonStock.com



"You may not feel any healthier right away,
but you'll definitely feel more smug."

What Products are Organic Shoppers Buying?



Survey of the organic products Irish consumers are buying (adapted from Neilson 2008).

Most organic buyers purchased their organic products at the supermarkets!!



Huge potential for Irish growers to produce alternatives to imported organic foods for supermarket sales.



LIMERICK INSTITUTE
OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA
LUIMNIGH

Fruit & Vegetables

Organic v Conventional

Sensory:

Taste
Texture (cell integrity)

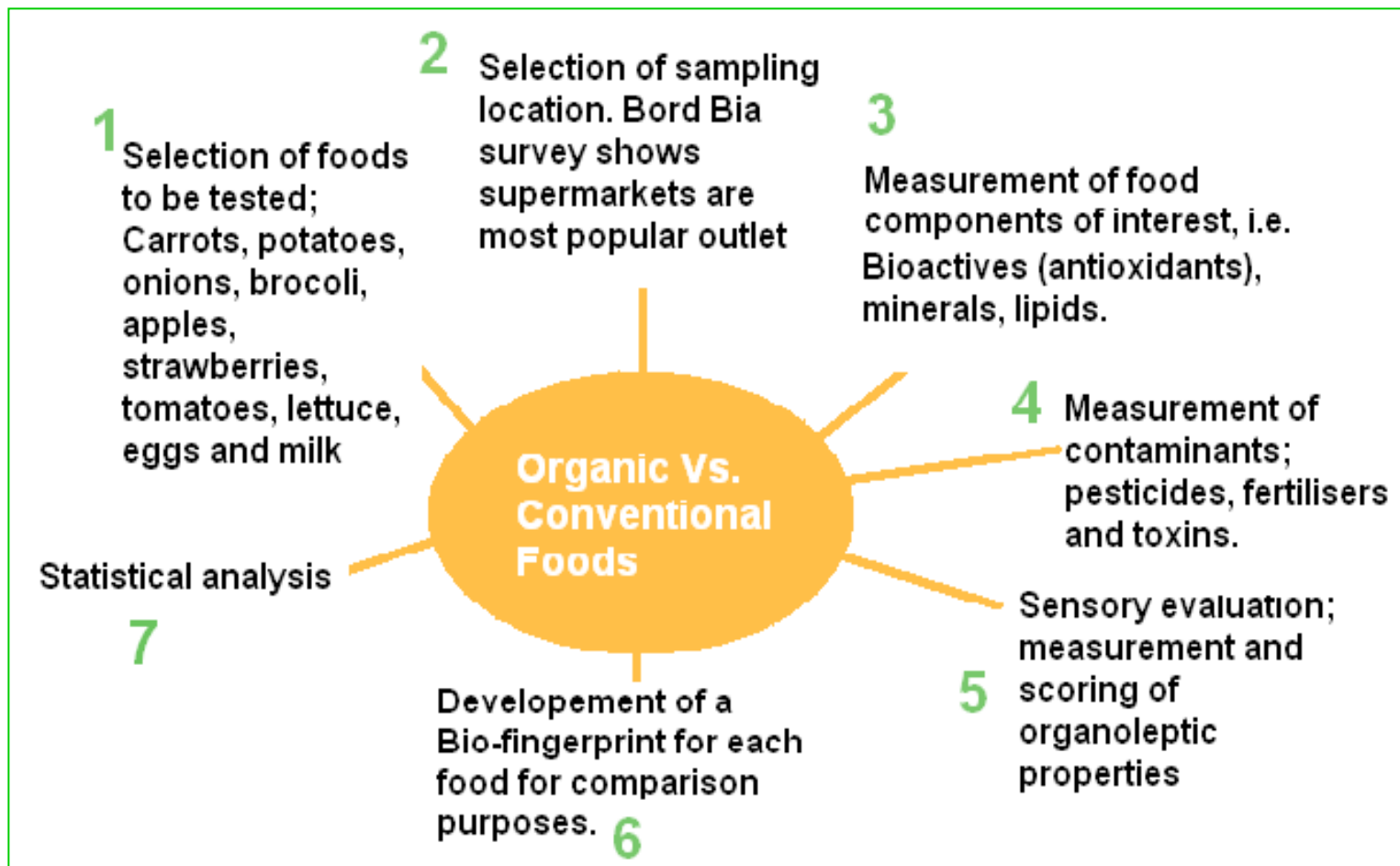
Pesticides
Nitrates



Bio-actives:

Multi-elemental:
Antioxidants
Polyphenols
Carotenoids
Flavanoids

IRCSET funded Organic study



Sensory Evaluation @ LIT

Conventional v Organic: Fruit, Veg, Milk, Beef, Poultry etc

New product – new organic range?

Improved product – low salt, low fat?

Benchmark against competitor?

Shelf life studies?

Marketing & Advertising – 8 out of 10 cats!!



Thank you!!

Any research/sensory/organic enquiries:

tracey.larkin@lit.ie