

HEALTHNEWS

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NUTRITION MATTERS

Slicing into the organic debate



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Is organic food better for you than conventionally grown food? The first in a two-part series suggests there is no reliable scientific evidence to suggest that it is. Watch out for another view, also based on the science, in Health News next week

WHEN Maslow determined food as one of our most basic physiological needs for development, one wonders whether he realised how complicated this basic need would become in the future. The decision-making process around food selection has become an immense challenge in today's world and is often the subject of intense debate.

Advances in farming technology have been made to assist food producers to meet the challenge of supplying enough food for the growing population. However, the technology and processes used have become growing consumer concerns. Words like organic food, locally grown, ethical trade, free range, sustainable agriculture and carbon footprint have found a place in today's food vocabulary as a result of this trend in consumer awareness.

The decision to choose organic foods is largely influenced by health and environmental factors. As consumer awareness of these issues increases, so does the presence of organic foods in the marketplace.

The South African Food Advisory Consumer Service (FACS) defines organic food as food produced without the use of artificial fertilisers, pesticides, growth regulators and livestock feed additives. This system of farming uses traditional methods such as crop rotation, composting, recycling of animal manure, hand weeding, environmentally friendly pest-control, homeopathic remedies and free-range animal rearing. Although organic farming methods are more environmentally sound, they are more labour intensive and produce lower crop yields compared with conventional farming methods, one of the major reasons it comes to the consumer at a premium price.

Statistics worldwide indicate that global food security has dropped over the past two decades. So although the terms sustainable agriculture and organic farming are often used interchangeably, whether the organic food supply can sustain the food requirements of growing populations worldwide is questionable. The reality is that both methods of farming are going to co-exist for a very long time.

Hearty eating

Vegetable and lentil soup

- 4 rashers macon or bacon, remove all visible fat
- 5ml thyme
- 2 carrots diced, 2 red onions chopped, 3 celery sticks, chopped
- 2 cloves garlic crushed
- ½ dried small chilli crushed
- 1 litre vegetable stock or water (use any kind — I've used beef and it was delicious)
- 3 tsp olive oil
- Sea salt and black pepper
- 200g red and green lentils (2 cups)
- 1 tin cannellini beans, drained
- Flat leaf Italian parsley
- Fry macon or bacon in olive oil till crisp. Then add carrots, celery, garlic, thyme, chilli, onions and simmer for 15 minutes until soft. Add lentils and stock or water and cook until lentils are soft (approximately 30 minutes — check cooking time on lentils). Add tin of beans and bring to boil, then simmer for 10 minutes. Add salt and pepper to taste. Serve with fresh rye bread and some flat leaf parsley for garnishing.

Italian roast red pepper and tomato soup

- Serves 4
- 2 red peppers, halved and seeded
- 2 tsp olive oil
- 1 large onion
- 2 cloves garlic, crushed
- 1 tsp tomato paste
- 750g ripe tomatoes, roughly chopped
- 2 cups of vegetable stock
- 2 tsp of sugar
- 1 handful of basil, torn into small pieces
- Preheat the oven to 180°C. Place the red peppers in a shallow baking dish skin side up, and drizzle with olive oil. Roast for 25 minutes. Remove from oven, wrap in foil and allow to cool slightly. Peel the skin off and chop the flesh in small blocks. Heat the remaining oil in a large saucepan and sauté the onion until soft. Add the garlic and tomato paste and cook for two minutes stirring constantly. Add the red pepper, tomato, sugar and stock, cover and simmer for 15 minutes. Allow to cool slightly, then purée using a blender. Season to taste. Reheat soup and serve with freshly ground black pepper and basil.

The decision to choose organic over conventionally produced food is a topic of much controversy, as there are good arguments on both sides of the debate. If you are going to subscribe to organic food make sure that the information you are trusting is correct and that claims made about these products are supported by scientific research properly conducted.

Let's have a look at some of the issues at the heart of the matter. There is a general belief that organic food is nutritionally superior to conventionally produced food but at this stage there is not enough good scientific evidence that indicates one is better than the other. In 2009, a UK study published in the American Journal of Clinical Nutrition reviewed more than 50 000 research papers on the nutrition related benefits of organic foods and found very little difference in the vitamin and mineral content of organic and conventionally produced food. There have been

thousands of studies conducted on this topic, but unfortunately not all are of a good quality and the findings tend to be inconsistent.

One of the major reasons that make judgment on nutritional quality difficult is that most of the nutrient value in farmed produce depends on a multitude of factors largely due to the soil type, storage conditions post harvest or supply chain differences.

So from a nutrient perspective it will probably be a long time before scientists are able to give a final answer on this debate.

What we do have overwhelming scientific evidence on is that a well-balanced diet can improve health equally regardless of its organic or conventional origin.

Pesticides are substances used in conventional farming methods for preventing, destroying or repelling pests. Although there are benefits to the use of pesticides there are also drawbacks, such as potential toxicity to humans and other animals. Washing or peeling the produce properly plays an



GET FRESH: A well-balanced diet that includes fresh vegetables can improve health, equally regardless of its organic or conventional origin. Picture: THINKSTOCK

important role in removal of most of the residues. In SA, the Department of Health and the Department of Agriculture set maximum residue limits for the levels of pesticides used in food production. These are likely to be greatly in excess of the actual intakes

Although there are lower levels of pesticide in organically produced food, it can still contain pesticides, as it is possible that the pesticides used by conventional farmers can contaminate surrounding farms in the vicinity.

Some studies on organically grown produce have shown that they can have higher bacteria counts, as they can be fertilised with animal waste.

According to FACS, extensive insect damage to organic plants may result in mould growth and toxin production that can cause food poisoning. So it is equally important to wash both non-organic

and organic fruit and vegetables thoroughly.

Identifying organic produce in SA can be a challenge. In this country the legislation to regulate organic food production and certification is still in draft version, therefore farmers have to be certified by international bodies such as Ecocert or the British Soil Association.

International law requires strict labelling of organic products — every product carries an official certification number on the back of its packaging. Only once the product has this label can it be trusted as being organic.

The current position on organic food then, is that there is no credible evidence to show that it is safer or nutritionally superior to conventionally produced food. Organic food differs only in the way it is grown and processed.

However, it is also important to

consider the environmental impact of our actions and lifestyle behaviour.

Organic agricultural practices appeal to people with sense of responsibility toward environmental issues, but it comes at a premium price. So if you are able to afford organic food, you can take comfort in the fact that you have contributed to a better future for the planet.

If you decide not to subscribe to buying organic foods, there are many other ways to address environmental issues when it comes to taking responsibility towards protecting the natural environment.

The American Dietetic Association gives guidelines on how to conserve natural resources, and support ecological sustainability without having to pay the premium prices for organic foods:

- Preferably buy your fruit and vegetables in season;
 - Re-use containers wherever possible;
 - Try eating fresher, minimally processed food;
 - Recycle glass, metal and cardboard;
 - Purchase recycled materials where possible;
 - Plant home food gardens;
 - Support companies that practise sound environmental sustainable practices;
 - Conserve marine resources by choosing sustainable seafood;
 - Manage packaging and waste;
 - Reduce water consumption in all aspects of daily living; and
 - Run appliances only when they are full.
- Catherine Boome is a Cape Town-based registered dietician with Anne Till and Associates(www.annetill.co.za).

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SUDOKU

NICE

	9	8	3		7			
3			7	1	2			9
		1				2		
1	4		7			6	2	
	3	6		4			8	
9	6			8			4	7
		7				8		
6			9	2	8			4
	1	5	7		2			

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NASTY

		8	6	2				
5								8
9	1							4
7		3	6		2	8		9
			5	7				
1		4	8	3	7		6	
8	9						7	2
2								4
		7	2	9				

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Rules of the game

Welcome to BrainBashers Sudoku and your weekly fix of the world's most popular and addictive numbers puzzle in two difficulty levels: Nice and Nasty. Sudoku is a simple game of logic and reasoning. No mathematics required. The object is to complete the grid so that every row, every column, and every 3x3 block contains the digits from 1 to 9.

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Solutions

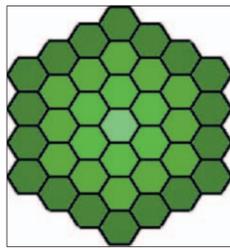
5	8	6	9	7	1	2	8	4
7	3	1	6	8	4	5	9	2
2	7	9	4	5	3	1	6	8
9	5	2	3	6	8	7	2	1
3	2	7	1	5	6	8	9	4
6	1	8	7	4	9	3	5	2
4	7	5	8	2	9	1	6	3
8	9	3	1	7	6	2	4	5
1	6	4	5	2	9	1	7	3

SUDOKU — NASTY

3	2	9	7	4	5	6	1	8
7	1	8	7	6	3	5	9	2
5	6	8	9	3	1	7	2	4
2	7	3	5	1	8	2	9	6
1	8	5	7	6	9	2	3	4
2	9	6	5	7	3	8	4	1
8	3	2	6	9	7	1	2	5
6	5	7	4	2	1	9	8	3
2	9	4	8	5	3	1	7	6

SUDOKU — NICE

PUZZLE



How many hexagons, in total, can you find in this puzzle. Clue: there are more than 45.

Answer
There are 64 hexagons in total.