

## The organic fraud - why chemical free is not enough

July 2012

Have you ever wondered why organic flour doesn't rise properly? Why your vegetables rot in the fridge in record time? Why apples sometimes have brown rot in the centre or show a collapsed structure when cut open in two? Why broccoli or carrots split or worse when they are bitter to taste?

To shed light on these difficult questions, Adam Willson, Director of Soil Systems Australia, was recently invited to speak at Biofach Shanghai – the worlds largest annual Organic Expo. His talk titled “High Yielding Organic Production – why chemical free is not enough” was presented to a packed room of over 300 delegates.

“The organic consumer is now asking the hard questions that the industry has refused to deal with over the last 10-15 years. Why am I paying a premium for food that isn't top quality? In the past the organic consumer shrugged his/her shoulder and accepted that this was all part of the organic image. Now it is not the case, they want value for money. They are voting with their feet and moving away from organic towards natural products.”

“The interesting fact is the organic industry was founded on two important principles, the first being building soil humus and the second remineralisation of the soil. Both of these principles are not audited under the certification process, they seem to be optional extras that come second to record keeping and being chemical free. Very few organic auditors actually check or know how to check to see if the soil is humifying (a process where the organic matter in the soil is directed to break down to form stable soil humus) and whether minerals are being replaced. The only check in the audit is whether you have had a soil test. When I reviewed the annual farm audits at Australian Certified Organic (ACO) I constantly observed something that still hasn't changed, “less than 5% of the organic farms remineralise, build soil humus or apply soil building practices like green manure cropping or on-farm produced compost. What is frightening is the ACO 2010 Standards (Sections 4.11 to 4.13) clearly outlines the need for these practices to be implemented but unfortunately they are not. What we are seeing is a watering down of the standards leading to poorer and poorer quality food that isn't being monitored. It is a dilution of the organic brand and dangerous for business”.

“Despite this lack of understanding about the foundation principles of organic farming, the certification bodies and organic industry at large use misleading data to promote the health benefits of organic food. The industry constantly uses research data from UK, Europe or North America that shows how organic food has many health benefits. Upon closer examination, it becomes evident that this data cannot be used here in Australia. The northern hemisphere soils were developed during the last ice age (around 15,000 years old) whereas our soils are millions of years old. We have up to 100 times less minerals in our soils which means organic food grown here is highly depleted and using this research is bordering on fraudulent”.

“There is no research here in Australia on the mineral levels, vitamins and amino acid levels of organic food. And yet, evidence is mounting that many degenerative and auto immune diseases occur when there are deficiencies in these critical nutrients. The role organic farming could play in providing the building blocks for optimal health is huge. You can't provide this with just chemical free food. Deficiencies in trace elements and essential nutrients lead to bitter flavours, split vegetables and poor quality protein in grains and

legumes. Poor quality protein due to declining amino acid levels and amino acid balance is one reason why cooking and baking quality of organic grains is so variable. Wheat protein levels should be above 12-14%, not the usual 10-11% we are seeing from many producers. This also puts enormous pressure on poultry producers when they try to source quality grain. In addition, the methionine levels in our grains are pathetic and this is linked to trace element deficiency. It is all about soil nutrition and this is specific to each soil type. It should be a mandatory part of each organic audit to test the nutritional levels in the produce and publish this through the organic network. It sets a benchmark that can be improved upon each year giving confidence to the sector”.

“Food production has been pushed out of our best soils onto ever increasing marginal farming country. The spread of urbanisation, mining and now coal seam gas highlights the need for organic production to address soil building practices. Buying an organically allowed input is not the complete answer and is often suboptimal; each soil type has differing mineral levels and these are often best chelated in a quality on-farm produced compost. If producers don't attend to the basics of nutrition it will lead to more and more consumers moving away from certified organic food to natural food products. It is happening already, this blur between natural and organic – just look at Woolworths Macro label”.

“The industry has been historically swept up with the self-adulatory fever of being chemical-free. The organic industry is more interested in whether a quality assurance system is in place and the product is wrapped up in plastic ready for the retail outlet. Rarely does the industry promote farmers who harvest the day before a farmers market – fresh in vitamins and amino acids. They prefer the supermarket model where fresh means up to 15 days old all the way to more than 12 months (apples). The industry was founded on fresh whole food but now we are having organic junk food. When you process food it becomes junk, critical enzymes and organic compounds are lost – no wonder degenerative diseases like diabetes and arthritis are out of control. The body is lacking the building blocks, fresh nutrient dense food. We need to return to local food production and fresh is always best. If certifiers are going to do something useful maybe they should make producers say when the product was harvested. Let the consumer judge what is fresh”.

“This is a serious subject that requires action by the both certifiers and producers if they wish to protect the organic brand. In Section 4 of the ACO Standards it states that Organic production systems are guided by the following principles and outcomes:

- Production of naturally safe, high quality, nutritionally vital foods. How can this be if we don't test for quality. Does this mean that every producer is potentially breaching the standards?”.

“What we need is a targeted approach to marketing the benefits of quality organic food. First food should be audited for quality every 1-3 years and compared to conventional food. Second, new growers should at least undergo education on organic farming practices and the links to nutrition. A Diploma of Organic Farming run by TAFE is one such example. Lastly consumers must be linked to this process through surveys comparing taste, flavours and aromas”.

Adam Willson is the director of Soil Systems Australia

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