

## Symposium 4: Nutrition and Sustainable Food Production

### **Sustainably managing food production resources to maximise human nutritional benefit**

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Nutrition is an integrating discipline that draws on a diverse range of reductionist disciplines. It embraces biochemistry, molecular biology, microbiology, psychology, physiology and epidemiology to name a few. The benefits of the discipline for humans lie in the efficient production of food and its intelligent use by consumers. Food is not simply fuel; it is overlain by culture and identity, is in many ways an index of the status of consumers and is symbolic of their stage of economic and consciousness “development”. The challenges for the future lie in the social context of food production. The sustainable production of food and its safety for humans reflects self image and a new consciousness.

Human nutritional benefit is problematic. The benefit can be an expression of health or it can be an expression of well-being that embraces both health and the environments both actual and vicarious. The latter is the forum for nutritional futures.

Future nutritional concerns will see food as a component of the body that is clean and a component of the “soul” that is green. It is relatively simple to understand the system that renders quality assured safe food with certain nutritional properties. It is far more difficult to understand the lifecycle impacts of food. The problem is that while the nutritional properties of two items of the same food may be identical the whole lifecycle impact on the environment of the two identical items may differ enormously. This in turn reflects the spatial and temporal heterogeneity of food production systems and is further complicated by markets that segment on quality variables (objective and perceptual) rather than source lifecycle variables.

The lifecycle approach to sustainable food production is holistic and has to be challenging to a profession that is fragmented in character. The divide is not however between positivism and constructivism but between holism and reductionism. Such a divide is not easily understood save through a paradigm shift to a systems and systematic approach.