Health concepts in organic agriculture

ORC Producer Conference

27 November 2014



Anja Vieweger, The Organic Research Centre, UK



Principles of organic agriculture

- **Health:** Organic Agriculture should sustain and enhance the health of soil, plant, animal and human as one and indivisible.
- Ecology: Organic Agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.
- Fairness: Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.
- Care: Organic Agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.



The IFOAM Principle of Health

'Organic Agriculture should sustain and enhance the health of soil, plant, animal and human as one and indivisible.'



Lady Eve Balfour (1898-1990)

- The Health of individuals and communities cannot be separated from the health of ecosystems.
- Health is the wholeness and integrity of living systems.
- It is not simply the absence of illness, but the maintenance of physical, mental, social and ecological well-being.
- **Immunity, resilience** and **regeneration** are key characteristics of health.



Reviewing and Developing Health Concepts for Ecological Agriculture (HeCo-Eco)

Funded by the Ekhaga Foundation, Sweden



Project overview

- March 2012 to December 2013
- Workshops, Expert Interviews,
 Literature and Text Analysis

What IS health?

and

HOW can it be measured?



Is the meaning of health the same in the disciplines of soil, plant, animal and human?











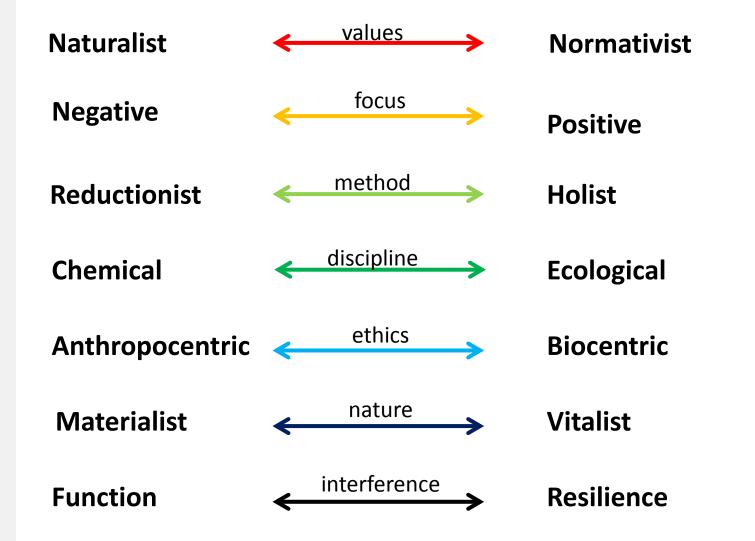
Criteria of health according to the content analysis of 75 scientific papers (15 in each domain: soil, plant, animal, human and ecosystem health).

TERM/CRITERIA	TOTAL over all domains	SOIL	PLANT	ANIMAL	HUMAN	ECOSYSTEM
function	25	8	3	3	4	7
maintenance	19	6	4	3	3	3
productivity	18	9	3	4	2	0
resistence	17	3	7	4	1	2
resilience	16	2	2	2	3	7
capacity	14	6	1	0	2	5
sustainability	12	9	0	0	3	0
diversity	9	4	4	0	1	0
adaptation	8	1	1	0	4	2
dynamic	8	4	0	0	1	3
wellbeing	8	0	0	1	4	3
complexity	7	2	3	0	1	1
tolerance	7	1	2	3	0	1
ability to recover	6	2	0	1	1	2
balance	6	1	3	0	1	1
Variety of terms used		24	25	12	28	28



rganic Research Centre

Seven dimensions of health concepts





Döring et al. 2012, *Plant Path*. 61:1-15

Stakeholder awareness, understanding and interpretation of health

- Awareness of 'subjective translation' of principles, regulations and standards
- Definition of health in agricultural systems
- Definition and demonstration of best practice





Assessing health in organic agricultural systems

Systems approach for food production (inputs to the system)



Evaluation of the output in a systems approach





