

## Principles of Organic Agriculture

First rough draft for consultation 040709

### Draft Preamble

*We hold these Principles as the foundation of the Organic Movement. The Principles of Organic Agriculture are also the roots from which the International Federation of Organic Agriculture Movements (IFOAM) grows and develops. As such they are relevant for the development of positions, programs and standards. They express the potential contribution that Organic Agriculture can make to the world, and the vision of how all agriculture should function in the larger context, recognizing that the desirable future cannot always be realized today.*

*Agriculture is one of humankind's most basic activities, since we need to nourish ourselves daily. Through agriculture we prepare the world to be eaten, we organize it so it can become part of us, so it can transform us. Furthermore, it expresses the way people relate to the soil and landscape. History, culture and community values are embedded in agriculture. The Principles are not limited strictly to agriculture; however, agriculture is both the starting point and the main focus of the Principles.*

### Purpose:

- To be the foundation of Organic Agriculture
- To set the framework for Organic Agriculture

### Work the principles are going to do / function:

- Lead and unite the organic movement
- To give guidance (in standards, policies, in general)
- Inspiration (internally for the movement, externally for change)
- Universal principles that are regional applicable
- Identity

### Form:

- Simple
- Normative (in former version the word 'ethical' was used)

### Proposed Order / Hierarchy:

This order divides the principles into three levels with level 1 being the overarching principle, level 2 being the main, more specific principles, and level 3 being additional important principles.

- 1: Principle of (ecological / holistic) health
  - 2: Principle of ecological justice (livelihood/equity)
  - 2: Principle of ecological integrity (cyclical/ecological)
  - 2: Principle of precaution
    - 3: Principle on animal welfare / animal integrity (humane principle)
    - 3: Principle on soil

## Proposed Principles

Principle of health / Principle of ecological health / Principle of holistic health

*Organic Agriculture should maintain and enhance health as an indivisible connection between human, animal, plant and soil*

The cyclical principle / The ecological principle / Principle of ecological integrity / principle of organic integrity

*Organic food systems should emulate and benefit from nature's systems and cycles, fit into them and help sustain them.*

Livelihood – equity principle / Principle of ecological justice

*Organic agriculture should strive to provide ecological justice to all concerned and ensure fair and transparent opportunities for livelihood.*

The Precautionary Principle

*Organic agriculture should adopt only technologies that take precautionary measures to protect human health and the environment.*

Principle of animal welfare / Principle of animal integrity / The Humane Principle

*Organic agriculture should raise/ keep domesticated animals in a way that maintains and promotes their health, respects their natural behavior, and does not cause undue stress, pain or suffering.*

Principle on Soil

*Organic Agriculture should secure and enhance soil fertility.*

## **Principle of health / Principle of ecological health / Principle of holistic health**

*Organic Agriculture should maintain and enhance health as an indivisible connection between human, animal, plant and soil*

### **Meaning:**

Health is more than the state of 'not being ill'. Health refers to the ability of regeneration and self-regulation. In this context illness is part of health, not as something to be abolished, but to be cured. Health refers to heal, to make whole again.

The harvest we get from the soil, mirrors the health of the soil. The human state of health mirrors again what has been taken up from this harvest. From another perspective is the 'societal health' a mirror of how we treat the land. Human is participant of nature; animal, plants and the soil are partners. Health is therefore seen as indivisible, as there is no distinct opposite between human and nature.

Production and processing systems should be organized and run in such a way as to transmit the benefits accrued through the living soil, healthy plants and animals. It is the only principle that by definition opposes genetic engineering, as it is the only one that stresses whole systems where the integrity of the whole is crucial and must not be destroyed by reductionism.

Human has the capacity to contribute to the healing process. This capacity gives a special responsibility to human.

### **Linkage to other principles:**

This principle is an overarching principle of organic agriculture, however not the only one.

To give expression to the interconnectedness of social and natural systems, the principles of ecological justice (livelihood / equity) and ecological integrity (cyclical principle) are introduced.

To express a critical view of technological solutions and prevent harm to health, the precautionary principle is needed.

### **Sub themes that may flow from it**

Naturalness

Medicinal plants

Integrity of socio-ecological systems /ecological communities

### **Items for discussion**

Natural health methods in animal keeping might conflict with animal welfare concerns.

In nature a lot of poisonous substances can be found, which threaten health [All things are poison and nothing without poison; only the dose makes a thing not a poison - Philippus Aureolus Paracelsus (app. 1530's)]

### **Background**

Lady Eve Balfour (1977, First IFOAM conference, see Woodward, L., D. Flemming & H. Vogtmann (1996)

Reflections on the past, outlook for the future. In: T.V. Østergaard (ed.) Fundamentals of organic agriculture.

p.259-270. Proc. Vol. I of the 11th IFOAM International Scientific Conference, August 11-15, 1996, Copenhagen)

Current Principal Aims nr. 2, 4, 5, 6, 7 and 10

## **The cyclical principle / The ecological principle / Principle of ecological integrity / principle of organic integrity**

*Organic food systems should emulate and benefit from nature's systems and cycles, fit into them and help sustain them.*

### **Meaning**

The cyclical principle is a principle for how to interact with nature, based on the insight that human societies in general and agricultural and food systems in particular are integrated parts of nature, and awareness of the self-reproducing (autopoietic) and self-regulating nature of living systems. The integrated or systemic perception of the relation between human and nature is different from perceptions of nature and man as distinct (see e.g. Alrøe & Kristensen 2003, Tybirk et al. 2004).

The cyclical principle refers to the cycles we can observe in nature (seasons; sprouting, growing, ripening, degeneration, composting) and the cycles Organic Agriculture strives to create at field and farm level and in the agro-food system.

The cyclical principles has implications for the use of finite resources (minimal / responsible)

[The principle does not put limits on how big systems can be, but in practice long distance transport poses problems with environmental (e.g. nutrient imbalances, fossil energy use, pollution), social (e.g. nearness, participation, transparency) and economical costs.]

### **Linkage to other principles and sub themes that may flow from it:**

The cyclical/ecological principle is very much related to Holistic Health, Biodiversity and Soil. Holistic health is the overarching principle at a level above the cyclical/ecological principle. Biodiversity seems to be essentially the same thematic area as Cyclical systems and is subordinated to this principle. And Soils is a principle that is part of the cyclical/ecological principle and can that can be specified as a principle on a lower level.

A point about appropriate technologies/low impact has been mentioned under this principle, but it seems to belong in the group with the precautionary principle.

### **Items for discussion**

The 'leak' in the cycle by bringing nutrients (in a one way street) from the farm to consumers.

Use of inputs from conventional farming (e.g. manure from caged layers or rBGH treated cows).

### **Background**

Principles or ideas like the cyclical/ecological principle are among the oldest and most established principles for organic agriculture.

The principle corresponds essentially to aim number 2 in IFOAM's Principal Aims "To work compatibly with natural cycles and living systems through the soil, plants and animals in the entire production system", but it also corresponds to aspects of number 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14 and, indeed, 15.

The cyclical principle is one of the three principles proposed by DARCOF (2000). Kindred concepts are the ecological principle, as suggested by Benbrook & Kirschenmann, and the idea/principle of naturalness. In Henk Verhoog et al.'s (2003) description of naturalness, the cyclical principle in this form more specifically corresponds to the "agroecological approach".

Other stuff:

References are in Alrøe & Kristensen's (full) paper on basic principles, see

<http://ecowiki.org/IfoamPrinciples/EcologyAndFarming>.

## **Livelihood – equity principle / Principle of ecological justice**

*Organic agriculture should strive to provide ecological justice to all concerned and ensure fair and transparent opportunities for livelihood.*

### **Meaning:**

Defines relationship of all actors.

Equal and just opportunities which are non exploitative.

Considers natural production resources as commons

Takes into account empowerment of farmers.

Ensures a farmer friendly production.

Has long-term vision of future generations.

“Environmental justice refers specifically to human transformations of nature that institutionalize social disadvantage. Ecological justice is applied more broadly so as to embrace the presence of existing social disadvantage, the interests of future generations, and the intrinsic interests of nature in the present and future. Ecological justice cognizes a commonality of interests between nature and society, thereby reflecting a radical reconceptualization of the human regard for ecology.” (Byrne, Glover and Martinez, eds., 2002, Environmental justice, p. 288).

“Environmental injustice occurs in the process of unequal exchange in which commodities are produced from nature.” (Ibid, p. 203).

### **Linkages to other principles**

Local markets - Accessibility

Precautionary principle

Holistic health

### **Sub themes that may flow from it**

Working environment

Protection of local knowledge

Transparency, nearness and participation

‘Ecological footprint’

Food security

### **Items for Discussion**

Contract farming

Use of Company seeds vs. Farmers seeds

Complete machinery farming (avoiding human labor)

The livelihood and equity concepts are problematic, with regard to the preamble, because they refer to broad social issues that organic agriculture only has a limited influence on.

### **Background**

Consultative input

Value systems

Existing principles of organic farming: nr. 3, 6, 13, 14, 15

Low and Gleeson, 1998, Justice, society, and nature: An exploration of political ecology.

Byrne, Glover and Martinez, eds., 2002, Environmental justice

## The Precautionary Principle

*Organic agriculture should adopt only technologies that take precautionary measures to protect human health and the environment.*

### Meaning

In the development and adoptions of new technologies, risks need to be evaluated in order for the consequences to be understood. After the risks are evaluated, two possible approaches to manage risks can be described as risk assessment and the precautionary principle.

Risk assessment evaluates risk statistically, assigning monetary value to the economic benefits and the economic costs of adopting a given technology. The decision to adopt or not adopt a technology depends on whether the benefits outweigh the costs. The evaluation is theoretically conducted by objective 'risk managers' who have perfect information future benefits, future risks, and the economic value of those parameters. In practice, the burden of proof is on those who defend the public to show that the costs outweigh the benefits to prevent the adoption of a new technology. Public involvement is limited to what is regarded as 'sound science' and narrow economic considerations where a new technology involves infringement on property rights.

By contrast, the Wingspread Statement best summarizes the Precautionary Principle:

"When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.

"In this context the proponent of an activity, rather than the public, should bear the burden of proof.

"The process of applying the Precautionary Principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action."

In both cases, the decisions made are scientific, political, and economic. The difference is with rights and the burden of proof. In the case of risk assessment, the developer or promoter of a new technology has the right to profit from its sale, and the public has the burden of proof to show that the adverse economic consequences of its adoption outweigh the economic benefits it creates. With the precautionary principle, the public has the right to protect human health and the environment, and the burden of proof rests upon the developer or promoter of the new technology to show that the risks are acceptable.

The burden of proof is especially important, because it determines how uncertainties and ignorance about consequences of the technology is treated.

An argument could be made that the precautionary principle is actually sounder scientifically because it introduces a healthy skepticism of the assumption that new technology is necessarily better. By broadening the participation in decision making over new technologies, there is less of a chance for the final decision to be dominated by conflicts of interest.

### Linkages to Other Principles

#### *Health / Holistic Health / Ecological Health*

Much of the focus of the precautionary principle has been the ethical problem of risking health—both human and ecological—in exchange for economic gains that often are no less speculative. Organic farming has been more conservative when adopting technologies that pose new risks to human, soil, animal, and ecological health—pesticides, chemical fertilizers, and genetic engineering are perhaps the three most prominent examples. Critics of both organic farming and the precautionary principle argue that new technologies generally reduce risk, and seldom concede that even the most risky technologies create greater risks than they reduce.

#### *Biodiversity [ecological health]*

One of the foremost applications of the precautionary principle in international affairs has been with respect to the protection of biodiversity from the release of novel (genetically modified) organisms. The Cartagena

protocol on biosafety both invoked the precautionary principle. The IFOAM EU group reaffirmed the precautionary principle in their statement on the coexistence of GM and non-GM crops.

### *Livelihood / Equity*

Often the economic gains of new technology come at a cost. Those who face the risks posed by the introduction of new technologies (consumers, farmers, farm workers) are not the same as those who reap the rewards (investors, product developers, marketers). When inter-generational equity is factored in, the gap widens. Often—as with persistent organic pollutants—the adverse consequences of new technology may take years to surface.

### **Sub themes**

Better safe than sorry

Look before you leap

Impact of unforeseen consequences / Law of Unintended Consequences

Relation to new technology

Possible danger in future

Burden of proof

### **Items for Discussion**

Science and technology of organic agriculture—How does the state of the art advance and improve? Can we adopt new technologies? How does one determine which technologies (inputs, methods, equipment) are acceptable and which ones are not? What criteria are used? Who are the affected parties? How are stakeholders represented? In particular, how are future generations and other species included?

In particular—is the question of genetic engineering categorically closed forever and always? Is it possible to conceive that some applications of genetic engineering will be found to pose no significant harm and fulfill all of the other principles?

Remark LWL: I think that the rejection of gmo's is only partly based on the precautionary principle. Another one is the sense of health / wholeness and integrity.

Transition / Conversion—What precautions are needed when non-organic farms convert to organic farming? Who is responsible for taking those precautions?

Contamination—How are organic farmers and other affected parties supposed to deal with technologies that are not part of the organic paradigm? How does organic farming co-exist with non-organic farming?

### **Background / References**

[Biotech-info.net articles on the precautionary principle](#)

[Cartagena Protocol on Biosafety](#)

[Communication from the \(EU\) Commission on the precautionary principle](#)

[Current Status and Implementation of the Precautionary Principle](#)

[IFOAM EU Group: Co-existence between GM and non-GM crops](#)

[Stockholm Convention on Persistent Organic Pollutants](#)

[Wingspread Statement](#)

Relation to current principle aims nr 2, 4, 7

Book:

Mary O'Brien. 2000. Making Better Environmental Decisions: An Alternative to Risk Assessment. Cambridge, MA: MIT.

Carolyn Raffensperger and Joel Ticknor. 1999. Protecting Public Health and the Environment: Implementing the Precautionary Principle. Covelo, CA: Island.

## **Principle of animal welfare / Principle of animal integrity / The Humane Principle**

*Organic agriculture should raise/ keep domesticated animals in a way that maintains and promotes their health, respects their natural behavior, and does not cause undue stress, pain or suffering.*

### **Meaning:**

The ethics of animal production are complex and controversial. Cultural norms for humane farming practices are not always well defined. Discussions of what is humane often become emotional, and are based on perspectives that can be defined as “exploitive, dominionist, animal welfare, animal rights.”

The relationship between the health and vitality/well-being of animals and the way they are kept is key to organic animal management.

(Kept - Intensity of production, Nutritional health of soil and plants – grasses and feed, animal physiology, stress)

Natural behavior includes physiological needs.

### **Linkages to Other Principles:**

*Health / Holistic Health / Ecological Health*

The inclusion of livestock in holistic farming systems has implications for the soil, crops, animal and human health and well-being.

Organic livestock maintain their health through balanced nutrition obtained mostly from organically raised forage and feed.

Well-being of organically raised livestock is determined with reference to a range of health status, disease incidence, longevity, reproductive performance, and various physiological and behavioral indicators.

Care of livestock requires a whole systems approach based upon prevention and the reduction if not elimination of sources of stress, rather than a dependence on animal drugs. The avoidance of animal drugs has a direct bearing on human health by forestalling the selection of strains of pathogens that are resistant to those drugs.

### *Soil*

The integration of animals into a holistic production system has implications both for the soil and the animal. The health of organically raised animals is dependent upon the nutritional value of the forage and feed which in turn is determined by the fertility and management of the soil.

### *Cyclical principle*

Animals in an organic system contribute to the fertility of the soil by assisting in the cycling of nutrients, building organic matter and being a part of crop rotation.

At the same time, livestock production offers a way to use land as range or pasture that might be unsuitable for cultivation because of slope or water limitations.

### *Livelihood / Equity*

Respect for all life extends to our own species as well. It strikes some as odd that organic farming would make claims regarding its better treatment of farm animals and maintenance of habitat for wildlife, but be silent about the human condition on organic farms.

### **Sub themes**

Healthy soil->healthy crops->healthy animals

Access to outdoors, access to pasture

Natural behavior

Carrying capacity—classical v. holistic models. Carrying capacity is not simply animals per unit of land; it is the number of animals per unit of land over time. Land can be stocked with more animals over shorter periods of time if they are rotated as a herd.

### **Items for Discussion**

Production animals v. wildlife—what is a domesticated animal? Can wildlife be considered “organic?” Does it go against natural behavior to try to domesticate animals that are generally considered wild? (e.g. elk, deer, salmon, kangaroos, emus).

The concern for natural behavior means that the conditions for keeping un-domesticated animals should be very like the natural conditions - and more so than for domesticated animals.

Follows from that: How should pests be treated? Pests are animals after all. There is a general acceptance that nematodes, insects, and mollusks can be killed [OA does not have principles against (appropriate) killing], although by means more limited than . Vertebrate pest control (e.g. ground squirrels and gophers in the Western US, foxes, cats and rabbits in Australia). Predator control is also very controversial in many parts of the world—the control of predators that threaten livestock poses a dilemma, particularly when those predators are endangered and the ranging of exotic livestock. Predators can play a valuable role in improving both herd genetics and soil management.

Organic is not a ‘vegan’ standard.

Restrictions on animal drugs v. prevention of suffering. There is a genuine conflict between the organic and general ideas about animal welfare in that more natural living could imply more suffering than in controlled environments – and, maybe, larger risks of spreading of zoonoses (animal-borne diseases that attack humans).

There is a potential conflict between natural behavior and the cyclical / ecological principle in that access to outdoor areas may lead to more environmental pollution.

### **Background / References**

Joel Salatin

Alan Savory, Holistic Resource Management

Otto Schmid & others—a 1999 conference proceedings from Spain

Paul Thompson

Current principle aims:

2, 10, 11

## **Principle on Soil**

*Organic Agriculture should secure and enhance soil fertility.*

### **Meaning:**

As explained in the health principle, soil, plant, animal and human are interdependent. Soil deserves an own principles as it is the base for healthy plant and animal production and therewith for human health.

Long term fertility

Nutrient cycling through soil

### **Linkage to other principles:**

Principle of health

Cyclical principle

Livelihood – equity principle (OR: principle of ecological justice) in the sense of land tenure and access to resources

### **Sub themes**

Soil conservation

Rotation

Vitality

### **Items for discussion**

What is soil? Is compost soil? And if not, how much soil should be added to make it soil. Is sand soil? And if not, how much compost should be added to make it soil?

Hydroponics,

Mushrooms, they are not plants, but should they be grown in soil? If not, why not – if plants must?

Nutrient budgeting,

Container production

Soil based

Two different concerns here: “should grow in soil” and “should secure and enhance soil fertility”.

### **Background**

4000 years of agriculture

World wide local knowledge

theories of Steiner, Balfour, and Rodale

Current Principle Aims: nr 4



INTERNATIONAL FEDERATION OF ORGANIC AGRICULTURE MOVEMENTS  
FÉDÉRATION INTERNATIONALE DES MOUVEMENTS D'AGRICULTURE BIOLOGIQUE  
FEDERACIÓN INTERNACIONAL DE MOVIMIENTOS DE AGRICULTURA BIOLÓGICA  
INTERNATIONALE VEREINIGUNG BIOLOGISCHER LANDBAUBEWEGUNGEN

**Principle on biodiversity** [so far not included, could be seen as part of health e.g. as indicator of ecosystem health]

*Organic agriculture should protect and enhance natural biodiversity, on a local and regional basis, using organic production methods on the farm and special care in protecting natural plant and wildlife habitats.*

**Principle on Local markets** [so far not included, could be seen as part of livelihood / ecological justice]

*Organic farming actors must set up and develop local markets which are accessible to the underprivileged small scale farmers.*

**Meaning**

Local markets are physical or virtual places where products and services relating to the promotion of organic farming are being exchanged. Local markets are both necessary and indispensable. They act as a regulatory and balancing system which helps to guarantee the sustainability of organic production.

Local markets deal with second class/lower quality products which are no good for exportation. They also help producers to sustain a certain level of regularity of the product supplies and improve the quality of organic products.

**Linkage to other principles:**

Principle of equity / ecological justice and the cyclical system

**Sub themes that may flow from it**

Local certification / Internal control system

Marketing

Premium price / accessibility

**Items for discussion**

Export

Market conditions

Middle man and price fixation system

What about other markets?