Abstract for Workshop on Organic farming, System thinking and the Future, International Agricultural Centre, Waageningen, February 21-23, 2001.

Title: Values in organic farming and their implications

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In the process of planning new research in organic farming in Denmark, various issues concerning the principles of organic farming and its future development have come out for discussion. The new research is intended to be pro-active and forward-looking, have a long-term perspective, and help to promote organic principles. These objectives can only be fully satisfied, however, if a degree of consensus is reached on the aims and principles of organic farming.

The organic farming movement originated as a response to the systemic problems that modern society and modern agriculture are faced with, and it is based on a systemic perception of nature, where humans and human society are perceived as an integrated part of nature. From the beginning, sustainable agriculture was conceived as closely connected to *health* as part of a continuum through soil, plant, animal and man. The special values and principles of organic farming stems from this realisation: Humans are an integrated part of nature and, due to the complexity of the socioecological systems, we have only an incomplete knowledge of the far and future consequences of our actions.

In the Danish discussion, the special values have been formulated as three basic interrelated principles of acting: The *cyclical principle*, stating that physical co-operation with nature should be performed by way of using, improving or establishing cyclical processes. The *precautionary principle*, which states that decisions on new practices and technologies should reflect the limitations of knowledge as well as the established knowledge, and that actions should be taken to prevent future problems. And the *nearness principle*, which states that good social relations between producers and consumers should be secured through direct, experiential interaction and transparent, informative communication. With respect to the more widely used environmental principles for development, organic farming thus has a special conception of sustainability (which has been termed 'functional integrity') and of risk and decision making (characterised as the precautionary principle).

Given that there are special values and principles of acting in organic farming, how well are these expressed in practice? A detailed investigation of the development of organic farming and the use of different practices and technologies shows that, for instance, there is a good correspondence between the actual development and the precautionary principle in plant production: machine technology with foreseeable consequences is largely accepted, while chemical and biological technologies with less foreseeable consequences is avoided. And the restriction on artificial fertilisers and the development in manure practices are found to be in line with the cyclical principle. On the other hand the development in trade, distribution, and marketing seems to be at odds with the nearness principle, and it puts large demands on the mechanisms of control and certification as means of maintaining consumer confidence in the organic qualities.

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It is evident that special values have indeed been guiding the development of organic farming. But this guidance is under considerable strain today due to the very dynamic development of the sector. The continued successful development of organic farming is therefore dependent on serious discussions and inquiries into the basic values and principles and how they are implemented in practice.

Making the basic values more explicit and decisive is also an important precondition for making relevant research in organic farming. Generally, systemic research (research that acknowledges and intends to play a role in the system it studies) can be seen as a self-reflective learning process that includes both an involved 'actor' stance and a detached 'observer' stance. From the perspective of the actor, aims, interests and values are of key importance, because they are decisive in action and development. The 'objective' observer perspective is detached from these value-laden aspects of the system – the observer, as an observer, plays no role in the actions of the system. But taking an observer stance implies a range of choices and delimitations that *are* value-laden – observation is based on distinctions and concepts, which are not independent of values. And if (in the case of systemic research: when) the observations are later used in the actions and development of the system, the values implied in the observations come to play a role.

In this perspective, good systemic research in organic farming should involve reflections on the values and aims of organic farming, and on how these values and aims correspond to the choices and delimitations that are a necessary part of making 'objective' research. Value discussions and value inquiry is an essential element in systemic research; this is not least true in relation to organic farming where the future development depends heavily on values that are, to some degree, unspecified and open to discussion.

Additional material that will be available at the workshop:

- DARCOF (2000) Principles of Organic Farming, Discussion document, Danish Research Centre for Organic Farming. (28 pp.)
- Alrøe, Hugo F. (2000) Wholeness-oriented research in agriculture contributions to systemic methodology and ethics: An inquiry into the relation between science and values with particular regard to organic agriculture. Summary of Ph.D. thesis with list of articles. (3 pp.)