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## Values in organic farming and their implications

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European agriculture and food production is in a period of change. Society makes ever-increasing demands for a reduction in the use of traditional agricultural inputs such as pesticides, artificial fertilisers and prophylactic medicines. At the same time there is a widespread disapproval of the intensification and specialisation that has characterised agricultural development in recent decades.

In this context, there is an increasing interest in organic production methods, and the demand for organic products has grown. Organic farming represents an alternative and more holistic view of agriculture and food production, and directly addresses the problems faced in many areas of conventional agricultural practice. Concerns for environment and nature, livestock welfare, and food quality are thus essential elements of the philosophy behind organic farming.

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, and help to promote organic farming and a sustainable development of agriculture in general. These objectives can, however, only be fully satisfied if a degree of consensus is reached on the aims and principles of organic farming (in accordance with Alrøe & Kristensen, 2001a). This consensus has to be reached by the various participants in the organic movement. The organic principles cannot be formulated by the "experts", although their analyses enter into the discussion.

As a part of this process DARCOF has prepared a discussion document (DARCOF, 2000), which is intended to support the discussion on the organic principles and the future development of organic farming.

The special values and principles of organic farming stem from the recognition that human society is an integrated part of nature, and that – due to the complexity of the socio-ecological systems – we only have an incomplete knowledge of the far and future consequences of our actions. Based on these fundamental assumptions, three general principles of action and development can be set out. In the discussion document they are called the cyclical principle, the precautionary principle and the nearness principle.

There is a special conception of sustainability in organic farming, which has been termed "functional integrity" (Thompson, 1996). Functional integrity corresponds to a systemic view, seeing agriculture as a complex system of production practices, social values and ecological relations. The functional integrity of the system depends on the use of cyclical processes and the reproduction of crucial elements, such as soil fertility, crops, livestock, nature, and human institutions. As a principle of action, this is sometimes expressed in terms of the development of systems harmony or harmony with nature. Here it is called the cyclical principle.

There is also a special conception of risk decisions and prevention in organic farming, which can be characterised in form of the precautionary principle (Alrøe & Kristensen, 2001b). The principle of precaution involves a self-reflective awareness of the limits of knowledge and control, and strategies for

handling ignorance and uncertainty. The principle is implemented by acting before conclusive scientific understanding is available in front of possible irreversible damage, by early detection of dangers through comprehensive research, and by promotion of cleaner technologies (Boehmer-Christiansen, 1994).

Furthermore the organic movement harbours what can be called a "nearness principle". This principle states that good social relations between producers and consumers – which are necessary for the functional integrity of organic agriculture – can be promoted through direct, experiential interaction and transparent informative communication. For example, using experience-based knowledge and local interests concerning the development of cultural and social values.

Given that there are such special values and principles of acting in organic farming, how well are these expressed in practice? A detailed investigation of the use of different practices and technologies shows that there is a rather good agreement between the practical development of organic farming and the precautionary principle and, to some degree, the cyclical principle. But the connection to the basic principles is under considerable pressure today due to the very dynamic development of the sector.

The recent growth of organic farming is partly due to the involvement of new actors in the organic sector. For example national states carrying out action plans, EU making common rules, and large companies entering into the organic market. But this development also underlines the question of the future development of organic farming and the role of producers and consumers in this. What is organic agriculture and what should it be? Where and by whom is this question to be discussed and decided? Who "owns" the rules of organic production? These questions are not only important to producers and consumers, but also to research in organic agriculture.

One thing seems certain, the continued successful development of organic farming as a factor in the sustainable development of agriculture in general, will depend on serious discussions and inquiries into the basic values and principles of organic farming and how they are to be implemented in practice.

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