

## The Deeper Meaning of Growth in an Organic Context

BERNHARD FREYER<sup>1</sup>, JIM BINGEN<sup>2</sup>, REBECCA PAXTON<sup>1</sup>, VALENTIN FIALA<sup>1</sup>

**Key words:** organic, growth, IFOAM Principles, markets, plants

### Abstract

*In this paper, which represents parts of a broader study on growth, we reflect upon the notion of growth in the organic agrofood chain from a philosophical point of view. Our objective is to identify characteristics of growth in an organic context. We first look at growth of the organic movement as a whole, and demand and supply. We then study the meaning of growth in the context of soils and plants. The IFOAM Principles orient the meaning of growth in the organic agrofood system. With these reflections we wish to initiate a debate on a deeper understanding of growth in the organic movement.*

### Background

We are living in a time of rapid intensification of agricultural production, which is accompanied by many negative consequences for environmental, social and economic justice (e.g. Stoate et al., 2001; Trigo & Cap, 2004). Different concepts are debated about how to establish sustainable agriculture (Rigby & Cáceres, 2001) and redefine growth (Pretty, 2008). There is a need to critically discuss what kind of production growth is needed to feed the world (Ehrlich & Ehrlich, 2013; Seufert, Ramankutty, & Foley, 2012). We therefore ask, if the organic movement could provide an alternative understanding and practice of growth, that contributes to a more sustainable agriculture and food production?

### Methods

Our understanding of growth is framed by the IFOAM Principles, thereby defining growth in an organic context (IFOAM, 2009). In order to understand how the term growth is applied in the organic agrofood chain, we study the growth of organic farms, market supply and demand as one socio-economic case, and soil-plant-interactions and related management as a second production oriented case. Each analysis represents only a part of a broader ongoing transdisciplinary discourse on growth in our working group and with colleagues from other disciplines<sup>3</sup>.

### IFOAM Principles and the meaning of growth

From an ethical point of view, the characteristics of growth in organic should align with the ethical foundation of organic, i.e. the IFOAM Principles (Luttikholt, 2007). Consequently, each sector of the organic agrofood chain should apply the principles in order to generate their specific interpretation of growth.

#### Table 1: IFOAM Principles

---

**Principle of health:** Organic Agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.

---

**Principle of ecology:** Organic Agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.

---

**Principle of fairness:** Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.

---

**Principle of 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.

---

<sup>1</sup> University of Natural Resources and Life Sciences (BOKU), Austria, <http://www.nas.boku.ac.at/ifoel.html?&L=1>, eMail: Bernhard.Freyer@boku.ac.at

<sup>2</sup> Department of Community Sustainability, Michigan State University, US, <http://www.carrs.msu.edu/>, eMail: bingen@anr.msu.edu

<sup>3</sup> Yoseph Delelegn, Imri Demelezi, Phillipp Dietrich, Francis Jumba, Milena Klimek, Gianna Lazzarini, Irune Penagaricano [www.nas.boku.ac.at/ueberlebensmittelsphilosophie.html](http://www.nas.boku.ac.at/ueberlebensmittelsphilosophie.html)

## **Growth of the organic movement within a supply and demand system**

A preliminary search for “organic agriculture and growth” in Google™ is enough to supply instructive themes to structure our debate. There is first the statistics on organic growth worldwide (Willer & Kilcher, 2012). This report informs us e.g., about the growth rates of organic farms in more than 100 countries. Scialabba and Hattam (2002) provide insights into the meaning of growth in the organic system: growth rates on farms, markets, production. If annual growth rates of organic farms of 100% represent a growth dynamic that fits into the IFOAM Principles, depends on the base level of farms, demand and supply characteristics and quality of farmer practices. For example, soil degradation and water polluted by pesticides in many areas of the world (Pimentel et al., 1995) could be, from a moral point of view, a duty to ask for a rapid growth of organic farms. So far 100% increase of organic farms per year are from that perspective acceptable growth rates to solve an environmental conflict. A rapid growth of organic product supply without growth of demand for organic products would weaken the producer’s economic security. Several authors introduce that growth of production and supply not only has positive impacts. Obach (2007) argued based on treadmill theory that the risk of decreasing environmental benefits resulted from the economization of the organic agrofood chain. Furthermore, the industrialization and commodification of organic production has been criticized as contradicting the principle of fairness (Allen & Kovach, 2000; Dimitri, Oberholtzer, & Wellson, 2007; Guthman, 1998; Obach, 2007). Both intensification and industrialization of organic production reduces the good reputation of organic as the most environmentally sustainable agricultural food system (SRU, 1987) and could result in de-growth in the sector.

A further central element to discuss growth is the organic price. The picture about organic price development in terms of growth is rather unclear. While distribution channels in non-supermarket structures take a great risk when they offer product prices only for high income consumers (Michelsen, Hamm, Wynen, & Roth, 1999), discounters price level for organic products and payment for organic farmers is decreasing. There is still debate about how to determine what price for organic products will motivate farmers, traders and consumers to convert to organic and thereby contribute to further growth of the organic agrofood chain (Browne, Harris, Hofny-Collins, Pasiiecznik, & Wallace, 2000). Concentration of market structures increases the dependence of farmers upon those structures (Lockie & Halpin, 2005) empowering the growth from a minority, and limit that of smallholders. Contrary diverse direct market structures also provide diverse opportunities for the growth of smaller production and market units (Buck, Getz, & Guthman, 1997; Gil, Gracia, & Sanchez, 2000). Higher demand than supply would increase organic prices leading to unjust market conditions for consumers and increase the risks of fraud. Growth in the organic context, therefore, asks for diversified market structures, distributed power and growth rates between supply and demand coordinated as a balanced process. Farmers converting to organic must develop their own market actively, instead of simply throwing products onto the market. They become more responsible for their products from the beginning of production until they have reached the consumer. Furthermore, conversion includes a long learning process and systems change, which teaches us that in order to be sustainable, the growth of the organic agrofood chain from that perspective is a slow process.

## **Growth of plants**

Humus content as one of the main factors for defining soil fertility is a result of a long-term processes (Berg, Hannus, Popoff, & Theander, 1982). The humus level of a soil built over ten years could be destroyed in one season, meaning that a long-term (slow) growth of humus faces a short-term (rapid) de-growth. In contrast to non-organic high soluble fertilizers, the bound and less soluble provision of soil minerals, their availability through soil organisms (e.g. Fließbach, Mäder, & Niggli, 2000; Gosling & Shepherd, 2005), slow release and cycling of nutrients (Altieri, 1999; Tilman, Cassman, Matson, Naylor, & Polasky, 2002) and dominance of organic matter as nutrient source, all lead to slower plant growth processes than in a non-organic farming system (Stockdale, Shepherd, Fortune, & Cuttle, 2002). The demand for long-term trial research in organic is the logical consequence to the slow growth processes of change from a non-organic to an organic soil quality (Birkhofer et al., 2008; Heinze, Raupp, & Joergensen, 2010; Watson, Atkinson, Gosling, Jackson, & Rayns, 2002). Plant yields in organic is based on living ecological systems and cycles, which are expressed through the distribution of energy from sun through photosynthesis into harvest products as well as soil fertility via root biomass. The broader idea beyond this practice is ensuring the well being of current and future generations and the environment. This makes explicit that growth is rooted in the idea of budgeting in a long-term perspective; and it is about diversity to ensure a healthy system (IFOAM, 2009).

## **Conclusion**

Organic is not about “without growth” or “de-growth”. However it is about what kind of growth and under which conditions (c.f. Jackson, 2011). The understanding of growth is systemic and case specific, based on one’s own resources, interactions and feedback loops between a system and its environment, a long term adaptation process, a harmony and “dynamic equilibrium” between human and nature (Magdoff, 2012), where overall orientation is given by the IFOAM Principles. Obviously there is a potential for growth through further developing the organic system: the number of farms could, for example, increase together with an investment into trade forms that do not contradict the principles on social justice; and through practices, e.g., through recycling organic matter and nutrients (Haq & Cambridge, 2012) without harming the Principles. These reflections should open a debate on an organic standpoint of the meaning of growth that could serve for further critical thoughts and provide impulses for the societal debate on growth. However, these reflections represent preliminary thoughts on this topic.

## **References**

Please contact the main author for detailed reference list.

