

Food Safety Debate and Development of Standards/Regulations for Organic Farming and Organic Food

Otto Schmid,

FiBL, Research Institute of Organic Agriculture, Ackerstrasse, CH-5070 Frick/SWITZERLAND,

otto.schmid@fibl.ch

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Introduction

There is an on-going debate, in which way Organic Food production systems do contribute to food safety. Only few comparative studies do exist. However Organic Farming developed a system approach which is mainly focussing on the process of production rather than on the end-product analysis. This approach, which is traditionally outlined in Standards and Regulations for Organic Farming, can bring benefits for food safety issues such as less contamination with chemicals, etc. But not all food safety areas are covered in standards/regulations, mainly because Food Safety is an issue of public health laws, which Organic Farming has to fulfil as well.

Materials and methods

For a current on-going study in France conducted by Afssa (Agence Française de sécurité sanitaire des aliments) the author made an evaluation of the main standards and regulations with regard to food safety issues based on a set of key questions. The EU Regulation 2092/91, Codex Alimentarius Guidelines for Organic Food, IFOAM Basic Standards and some private standards were analysed. The main focus was to assess in which way with direct measures (precautionary principle, e.g. exclusion of certain products) and with indirect measures (system-approach) food safety problems are reduced. The results were discussed with a group of 10 food safety experts. Deficits were identified which need further discussion and should be considered in the standard setting process in short as well as long-term perspective.

Results and discussions

In table 1 the main results of the assessment are summarised.

Table 1 : Potential food safety risks : evaluation of direct and indirect effects of standards/regulations for organic food production

Influence : +++ very positive ++ positive + tendency positive - tendency negative
 -- negative --- very negative gfl = general food legislation

Proposed actions: D = broad discussion M = more specific monitoring, R = ev. more restrictions in standards

Potential food safety risks	direct effects	indirect effects	Issues to be elaborated in organic food standards
General food safety risk management	++	++	Short term: D, M, Long term: R
1 Risk of parasites	=/gfl	+/-	M, R
2. Risks with bacteria: <i>E. coli, etc.</i>	+	+/-	M, R
3 Risks of fungi/diseases: <i>Mycotoxines, etc.</i>	=/gfl	++	M, R
4 Risks of virus diseases	= / gfl	+	M
5 Risks of chemicals, pesticides	+++	+	M, D
6 Risks of additives	++	++	R
7 Risks of veterinary treatments	++	+	M, D, R
8 Nitrates, nitrites, nitrosamines risks	+	+	M, R
9 Heavy metals risks	+	++	M
10 GMO risks	+++	++	M, D, R
11 Dioxins risks (e.g. in eggs)	= / gfl	= /gfl	M
12 BSE risks	+	+	M, R

Conclusions

Some areas such as contamination with chemical pesticides and GMO need a broad discussion about the strategies to follow. In several areas a more specific monitoring will help to identify early potential risks and possible strategies (HACCP, etc.). Some issues such as microbiological risks, contamination with veterinary treatments, feed additives, and risks with parasites in animal products have to be further elaborated in standards. More system/process based (indirect) approaches instead of single measures should be developed.

References

For books

Soil Association (2001): Organic farming, food quality and human health. Bristol, 86 pp