

1st scientific FQH conference „What we achieved – where we will go“

Short summary of the discussion

Angelika Ploeger, who chaired the final discussion of the FQH-Conference, described the framework in which the FQH – conference and the discussion about research priorities have to be seen within the EU research activities.

The booklet of the European Commission „Organic Food and Farming, Research in Europe“ 2005 (EUR 21713) stated clearly that in the past couple of years, several EC-funded collaborative research projects on organic farming have been funded within the Sixth RTD Framework Programme. Nevertheless, the EU Commission and national representatives noted on a workshop held in November 2004 in Brussels that research in the field of organic agriculture and food should be complemented by “improvement in coordination, communication, infrastructure and training to underpin policy initiatives in order to create a stable and competitive organic food and farming sector in Europe” (p. 5).

The European co-operation on organic food and farming started at a conference in Denmark in May 2001 where the Ministers from governments all around Europe signed the so called *Copenhagen Declaration* in which they agreed that organic farming is a highly relevant tool which contains the potential to participate in solving a range of problems related to food production, environment, animal welfare, and rural development. They also agreed, that organic food and farming should be developed further in Europe. As a direct result of a meeting hosted by the EC’s Research DG in September 2002 in Brussels a submission was made for a Coordination Action under the European Research Area Network (ERA-NET) that led to the establishment of a European Network to coordinate national programmes on organic food and farming research (CORE Organic). The EU directly funds research and technical development (RTD) through its Framework programmes. Research related to organic food and farming is mainly funded under Thematic Priority 5 (TP 5) “Food quality and safety” and some are funded under the programme Scientific Support to Policies (SSP). At the end of 2006 the Commission will launch the Seventh Framework Programme for RTD which will run for five to seven years.

The 4 recommendations to improve transnational research co-operation within the field of organic agriculture and food can be summarized as follows (p 28):

- Research is needed to advance the adoption and integration of new technologies in organic farming and food processing.
- Research is needed to assess the socio-economic impact of organic farming and its contribution to rural development (provision of public goods, multifunctional activities, biodiversity, on farm processing etc.).
- Research is needed to underpin the impact of organic agriculture and food on human and animal health. Special attention must be paid to the whole-chain safety of plant and animal production systems including post harvest treatments, conservation and transport.
- Research is needed to clarify aspects related to the coexistence of different agricultural production systems to provide scientific support for revision of the relevant regulations.

As the European Commission (DG Research) requests, FQH as an European Association of Research Institutions in the field of organic agriculture, food and health, aims for an improvement in the field of research coordination. An important key to that is the discussion of experimental designs and the corresponding research results.

Therefore FQH's 1st Scientific Conference started with reflections about experimental designs of field trials and farm comparison trials and their results concerning food quality (e.g. sensory attributes of the produce, nutrient content). The second unit of the conference reflected the problems of experimental design in animal housing and feeding in relation to milk quality parameters such as fatty acids. This included results of so called complementary methods for food quality such as copper-chloride-crystallisation. The speakers of the session focused as well on milk quality in relation to constitutions of cows and their health status and on human health and milk quality.

The third unit of the conference switched to the question how to define food quality and this led to the discussion about corresponding methods. The topic of validation of methods was presented and it was stated that a method can only be validated if the question / hypothesis has been clearly addressed and the experimental design is appropriate. In the discussion all scientists agree that the chemical analyses of samples is commonly used to describe food quality even with its effects on human and animal health although it is clear that e.g. the level of vitamin C or nitrate is only one small factor for health (especially human health as defined by the World Health Organization).

On the second day of the conference the research for the market was one important topic (e.g. what do consumers expect when they buy organic food, how is the processing of organic food defined by law, described by processors and is it in accordance to the expectations – such as whole food - of consumers). The paper of a representative of the trade stated clearly that there is not "**The** organic consumer" but different consumer groups looking for their (emotional) needs which should be met by organic food. The topic health seems not to be an important reason for buying organic food in Europe. The need of intensifying research to link parameters of food quality to animal/human health was not expressed by consumers but from the research side and partly by the market.

The general discussion which highlighted and finished the 1st Scientific FQH Conference struggled mainly with the topics how to generate a hypothesis, an adequate experimental design approach and a definition of organic quality acknowledging organic agriculture as a "living system". In this context the statements of Lady Eve Balfour and Sir Albert Howard were discussed which state that health of human, plant and soil "is indivisible and one". In the course of the discussion the following questions emerged:

- Which experimental designs are appropriate to meet the "system approach" in organic agriculture (difficulties and advantages of e.g. field trials, comparison studies, neighbour farms)?
- Which experimental designs can be accepted for research in the field of animal and human health (ethics of research, animal welfare and limitations by needs of sampling)?
- Which parameters (along the food chain or the food itself) meet the (living) system in organic agriculture and food production system?
- What is assessed by complementary methods?
- Is there a correlation between the results of complementary methods (e.g. parameters identifying "structure") and those from chemical and conventional(?) analysis?
- Is it necessary and possible to formulate a code of practice for research in the field of organic agriculture and food?

The participants of the 1st Scientific FQH Conference agreed that the current legal standards and regulations for organic agriculture limit the wholeness of the organic system and that they are impedimental for defining organic quality where only a product oriented perspective can be appropriate. Organic quality must be viewed as a whole and living system while standards block that view and can not be a basis for comparing conventional and organic quality. An agreement of all attendees was that the exchange of results and questions especially the “system approach” units FQH members and supporting scientists in their aim for precise and appropriate research. Nevertheless a second meeting of FQH researchers and supporting scientist will be necessary to follow up open topics of the discussion. The FQH board will prepare such a meeting for 2006. Providing a basis for this a discussion paper will be composed addressing only the most important topics which need further discussion.

Urs Niggli (vice chairperson and host of the 1st Scientific FQH Conference) closed the conference by thanking all participants for their contributions and his staff for the very good preparation. He stressed out that this conference has been the first one for years where a real discussion about organic agriculture has taken place.

The next meeting and General Assembly of FQH will take place at the Biofach in Nuremberg (February 16th, 12-2pm and 5.30-6.30pm, respectively)

Angelika Ploeger