



Improving quality and safety and reduction of cost in the European organic and "low input" food supply chains

The European Integrated Project QualityLowInputFood aims to improve quality, ensure safety and reduce cost along the organic and "low input" food supply chains through research, dissemination and training activities.

The project focuses on increasing value to both consumers and producers using a fork to farm approach.

Organic and low input systems



For society, organic and other “low input” farming systems provide an effective means of responding to the increasing consumer pressure to omit or reduce agricultural inputs (in particular pesticides, mineral fertilisers, veterinary medicines and growth promoters). However, in order to ensure that the European societies benefit optimally from this mechanism, it is necessary to address the actual and perceived problems or benefits which are of particular importance for low-input farming systems.

Lower production costs and coupling of lower production costs with improved quality and safety and consumer perceptions of higher quality and safety will enable low-input farmers to provide higher value-added food that maximises benefits to consumers and producers alike.

It is particularly important to ensure that consumers will be able to make their choices based on defined knowledge of the value provided by different types of products, and that these values may be reflected in more accurate and realistic business planning all along the production supply chain.

Objectives

QualityLowInputFood aims to improve quality, ensure safety and reduce cost along the European organic and “low input” food supply chains through research, dissemination and training activities. It focuses on increasing value to both consumers and producers and on supporting all components of the food chain, using a fork to farm approach. To achieve the overall aim the project has four objectives:

1. To improve the match between producer’s aims and consumer expectations regarding quality and nutritional value of organic and other “low input” food
2. To increase the cost-efficiency all along the organic and other “low input” food chain, while improving or maintaining its quality
3. To contribute to minimising food safety risks all along the food chain (including the stages of production, processing, distribution and consumer food handling)
4. To contribute to reducing environmental impact and fossil energy use in organic and “low input” farming

Research activities

The research activities, which are carried out in order to fulfil the objectives of QualityLow-InputFood, are subdivided into seven subprojects (see the figure).

Subproject 1 focus on a detailed analysis of –consumer expectations/attitudes and buying behaviours, with respect to quality and safety of foods produced in organic and low input production systems.

Subproject 2 focus on the extent to which consumer expectation with respect to the quality and safety of food from organic and “low input” systems are justified, by testing selected hypothesis with regard to differences in the composition, sensory quality and microbial loads of foods from different production systems and their impact on human and livestock health.

Subprojects 3, 4, 5 and 6 then focus on improving and assuring the quality and safety of foods from low input and organic production systems, throughout the food chain, while seeking gains in production efficiency leading to lower production costs. They address known consumer concerns and technological bottlenecks in primary production, processing, and trading/retailing and quality assurance for specific model crop and livestock commodities.

Interrelatedness of subprojects and horizontal activities in QualityLowInputFood

Legend:

- Co-ordination/management related activities (Blue line)
- Exchange of technical deliveries (Pink line)
- Indicating major flows of deliverables and information (Double-headed arrows)

Diagram Structure:

- SUBPROJECT 0**
Project co-ordination
(including financial and contract management)
- SUBPROJECT 1**
Determining consumer expectations and attitudes towards organic/low input food quality and safety
- SUBPROJECT 2**
Identifying effects of organic and "low input" production methods on food quality and safety and human health
- PRIMARY PRODUCTION**
 - SUBPROJECT 3**
Development of strategies to improve quality and safety and reduce cost of production in organic and "low input" crop production systems
 - SUBPROJECT 4**
Development of strategies to improve quality and safety and reduce cost of production in organic and "low input" livestock production systems
- PROCESSING & SUPPLY CHAIN**
 - SUBPROJECT 5**
Development of a framework for the design of minimum processing strategies, which guarantee food quality and safety
 - SUBPROJECT 6**
Assurance of quality and safety along the supply chain (including transport, trading and retailing)
- HORIZONTAL ACTIVITIES (SUBPROJECT 7)**
 - Horizontal Activity 1: Environmental and Sustainability Audits
 - Horizontal Activity 2: Cost benefit analyses and identification of effects on business development
 - Horizontal Activity 3: Dissemination and technology transfer (producers, consumers, European Commission, national governments)
 - Horizontal Activity 4: Training and exchange of doctoral and postdoctoral researchers

Typically, the congress will be held in co-operation with other EU funded research projects and with representatives from the local organic sector and other end user organisations (e.g. NGOs, consumer organisations)

Workshops & seminars

Research teams in QualityLowInputFood will organize regular outreach activities for consumers, producers, processors and other stakeholders, schools/colleges, and the press.

Activities will include workshops and discussion sessions, field and laboratory visits, open days, stands at agricultural and other trade shows etc.

Exchange and training

The project will provide training and educational programmes on organic and “low input” farming to junior scientists in the project and from European institutions not involved in the project.

Publications

QLIF congress in May 2006

The next QLIF congress will be held in May 2006 in Denmark. The event will be held in collaboration with other EU projects in organic food and farming. Please check our website for further information.

At the QualityLowInputFood project an annual congress will be organised. The event is open to both partners in the project and other scientists from Europe and elsewhere.



Facts on QualityLowInputFood

Integrated projects are designed to generate the knowledge required to implement the priority themes of the European Union's Sixth Framework Programme of Research and Technological Development.

The integrated project QualityLowInputFood was initiated on March 1, 2004 and will last for five years. It is funded by the European Union with a total budget of 18 million. The research involves thirty-one research institutions, universities and organic businesses and throughout Europe and beyond.

Project management

Project co-ordinator

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Academic co-ordinator

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Partners

The QualityLowInputFood consortium consists of 31 partners from 15 European countries:

1. University of Newcastle upon Tyne (Overall Co-ordinator, England, UK)
2. Research Institute of Organic Agriculture (Academic Co-ordinator, Switzerland)
3. Danish Research Centre for Organic Farming/Danish Institute of Agricultural Sciences (Denmark)
4. Praktijkonderzoek Veehouderij BV (Netherlands)
5. University of Kassel (Germany)
6. Campden and Chorleywood Food Research Association (England, UK)
7. University of Wales, Aberystwyth (Wales, UK)
8. Louis Bolk Institute (Netherlands)
9. Alma Mater Studiorum - Università di Bologna (Italy)
10. Institut National de la Recherche Agronomique (France)
11. Warsaw Agricultural University (Poland)
12. University of Natural Resources and Applied Life Sciences, Vienna (Austria)
13. Universidad de Tras-os-Montes e Alto Douro (Portugal)
14. Technological Educational Institute of Crete (Crete, Greece)
15. Vysoka Skola Chemickotechnologicka v Praze, Prague (Czech Republic)
16. Bar Ilan University (Israel)
17. University of Helsinki (Finland)
18. TUBITAK-Marmara Research Centre (Turkey)
19. University of Bonn (Germany)
20. University of Basel (Switzerland)
21. Institute of Grassland and Environmental Research (Wales, UK)
22. Universitat Hohenheim (Germany)
23. Università Politecnica della Marche (Italy)
24. Granarolo SPA (Italy)
25. Roger White and Associates (England, UK)
26. Guaber SPA (Italy)
27. Anidral SRL (Italy)
28. Gilchesters Organics (England, UK)
29. Agro Eco Consultancy B.V. (Netherlands)
30. Swiss Federal Research Station for Animal Production and Dairy Products (Switzerland)
31. Groupe de Recherche et d'Echanges Technologiques (France)

