

**1<sup>st</sup> workshop 5 - 7 September 2003, Florence, Italy**

**"Socio-Economic Aspects of Animal Health and Food Safety in Organic Farming Systems"**

**Abstracts**

# Potential contribution of economics to animal health and food safety on organic farms

Dr Alistair W. Stott<sup>1</sup>

Animal health economics is often seen as a separate exercise from animal/veterinary science, devoted to measuring the financial impact of diseases. As such it plays a 'support' role, demonstrating the heavy losses attributable to specific animal diseases and thus raising the profile and funding priority for remedial actions ranging from scientific research projects to on-farm decision making. This approach can lead to serious misallocation of resources and failure to exploit the considerable potential of economics when integrated with science in the pursuit of animal health and welfare. Such losses will be particularly acute in future as restrictions on free global trade in food commodities are lifted and emphasis shifts from supply-side to demand-side considerations. In the developed world, such demand-side considerations will focus on 'healthy agricultural trade' in which animal health plays a major role and organic farming is perceived as the 'gold standard'.

The main challenge for animal health economics is to establish the optimum balance between disease losses and disease prevention/control activities. With this information, the impact of animal disease on the decision makers objectives (e.g. profit maximisation, risk minimisation, animal welfare, sustainability etc.) can be minimised. This challenge is not met by establishing the average costs of an endemic disease or the losses attributable to a past outbreak of an exotic disease. It requires full understanding of the biology and epidemiology concerned as well as the economics that influences the actions of decision makers in response to an epidemic. Such actions (witting or not) will be at least as important as the biological characteristics in determining the outcome of a disease epidemic in a managed population of animals. Farm animal health is therefore a multidisciplinary subject that integrates economics with science. Actions included may go beyond those normally associated with disease control such as culling policy, stocking rate, nutrition etc. thus making the approach particularly attractive to organic farming where the use of certain veterinary medicinal products may be restricted. This paper outlines some developments in animal health economics that address the main challenge of finding the best balance between farm animal health and its costs.

---

<sup>1</sup> Animal Health Economics Team, SAC, Craibstone Estate, Aberdeen, AB21 9UD, UK  
Tel: [0]1224 711218; Fax: [0]1224 711720; Email: a.stott@ab.sac.ac.uk

# **Farm level economics of organic milk and beef production in several European countries**

**Claus Deblitz<sup>2</sup>**

The paper will present results coming from two projects (dairy and beef) within the German federal research programme for organic farming. The projects are not completed yet, results are preliminary.

The analysis is based on case studies of several typical organic dairy and beef farms in Europe (AT, CZ, DE, DK, FR and HU) and in Argentina. The organisational framework is the International Farm Comparison Network ,IFCN' with participation of scientific partners in all countries.

The analysis focused on production systems, production costs and profitability of organic dairy and beef farms. The data are based on national statistics (if available), local advisors and farmers. A cross-country comparison of organic farms as well as an intra-country comparison of organic vs. conventional farms was performed. Detailed results will be presented during the conference as analysis is still under way.

---

<sup>2</sup> **Forschungsanstal für Landwirtschaft, Braunschweig, Germany**

## **Why do humans keep animals? Does the answer help to define the standards for organic animal husbandry?**

**Rahmann, G.<sup>3</sup>**

Cattle, pigs and chicken are not the only farm animals. Worldwide about 23 different species of mammals, birds, insects and fish are domesticated and kept by humans for a variety of uses on farms. The answer to the question “Why do humans keep these animals?” seems easy, particularly in agriculture, but following the initial reaction, many more reasons emerge:

- Food products: meat, milk, eggs, honey, blood
- Non-food products: feathers, wool, skin, hair, bones, silk, medicine
- Services: transport, therapy, recreation, landscape maintenance, hunting, protection, sport, status, research
- On-farm functions: manure production, utilisation of by-products from crop farming and processing, pollination, pest control (insects, rodents), herding

One of the main difficulties in discussing and defining standards and regulations for (organic) livestock keeping is the wealth of different perceptions, ethical values and expectations of farmers, consumers and the public. When the sociological impact of these differences is understood, it becomes easier to discuss, define and evaluate the standards of animal keeping.

Only with a clear answer of the question “Why do we keep the animals?”, can we define “How do we have to keep the animals?”.

---

<sup>3</sup> Institute of Organic Farming of the German Federal Agricultural Research Centre (OEL-FAL), Trenthorst 32, D-23847 Westerau, Phone +49 (0) 4539 8880 0, FAX +49 (0) 4539 8880 120, e-mail [gerold.rahmann@fal.de](mailto:gerold.rahmann@fal.de)

# **MARKET SITUATION FOR ORGANIC ANIMAL PRODUCTS IN EUROPE**

**Ulrich Hamm and Friederike Gronefeld**

As no official statistics on organic markets in European countries exist, the presentation is based on data collected within the research project “Organic Marketing Initiatives and Rural Development (OMIaRD)” financed by the EU within the “Fifth Framework Research and Technical Development Programme”. Data on production, consumption, foreign trade, farmer and consumer prices were collected for all EU countries plus the four Non-EU-members Czech Republic, Norway, Slovenia and Switzerland for the years 2000 and 2001.

From the second half of the 1990s the national markets for organic food in European countries all show a strong growth, but with very different rates of growth and development on both the demand and the supply side. There is one commonness for all countries: the market for animal products is not as developed as for plant products. Within the animal products the markets for the cereal-based animal products (pork, poultry and eggs) are lagging far behind the grassland-based animal products (milk, beef and sheep meat). There are several reasons for the different development between the organic markets for animal products; the most important are:

- 1 With regard to production it is much easier to convert grassland areas to organic production methods than arable land. As in most European countries the area-based subsidies for grassland are as high as for arable land, it is no wonder that the organic share of all grassland areas in Europe is much higher than for arable land.
- 2 As the additional production costs for an organic production of milk, beef and sheep meat are low compared with the additional costs for pork, poultry and eggs where high price premiums for the animal feed (cereals, dried pulses, oilcakes) have to be paid and strict regulations for animal husbandry require high costs for animal keeping.
- 3 On the demand side, a lot of regular buyers of organic food have a low demand for meat products, if they are not even vegetarians. Together with high production costs for pork and poultry and small amounts marketed, this results in high price premiums for consumers which limits the demand.

Europe-wide, organic farmers have sales problems for milk, beef and sheep meat, while the markets for organic pork and poultry are in its infancy and volatile so that an over-supply and under-supply can alternate in short periods within a country, also because international trade for organic animal products is comparably low. The further development of the national markets for animal products strongly depends on the relation between area-based subsidies for organic grassland and organic arable land, on the engagement of supermarket chains in selling organic animal products, which is very low for meat in most countries, and on the national efforts in building up supply chains from farmers to wholesalers of organic animal products.

# Political Economy of Organic Foods

Paul Rye Kledal<sup>4</sup>

Organic farming can be regarded as a social counter movement born out of the economic accumulation crisis between the second and the third food regime in the 1970-80's. It provides an alternative to the growing problems of capital accumulation received as:

1. Environmental and human health risks in relation to the use of pesticides, nitrate in the groundwater and escalating problems with animal welfare and food safety.
2. Expulsion and marginalisation of farms, landscapes and rural production cultures.

Various support schemes during the 1990s to promote sustainable production solutions, has generated a growth in new alternative food links and closer networks between producers and consumers in the North and the South, as well as the birth of solidarity networks between consumers in the North and producers in the South like 'Fair Trade', 'Max Havelaar' etc.

The future development of organic farming, and its prospect of solving problems in relation to animal health and food safety, is therefore closely related to the socio-economic development of the third food regime and its continuing struggles between a more *democratic* global regulated food regime with the right to protect certain regional and national differences; contra a more *private* global regulated food regime where food production is largely conditioned by the interests of Trans National Food corporations and their aspirations for de-regulation and global market growth.

The changing *modes of food consumption* are also part of the creation of new social and economic spaces for organic food production. Consumer aspects though concerning *eating out* and *eating home*, convenience food, and outlets serving 'mobility food' with easy acces for the consumers between home-and-work, home-and-leisure, will be the next great challenge for organic food production concerning expanding markets, and in the same adressing questions of food safety, food quality and animal health.

---

<sup>4</sup>Farm Management and Production Systems Division , Danish Research Institute of Food Economics, [www.foi.dk/staff/](http://www.foi.dk/staff/)

## **Is it easy for producers to market organic beef meat ? The case of BioBourgogne Viande (France).**

**Pierre Sans<sup>5</sup>, de Fontguyon, G., Le Floc'h A. and Sylvander, B.<sup>6</sup>  
Auersalmi, M.<sup>7</sup> and O. Schmid<sup>8</sup>**

Within the framework of the program OMIaRD (Organic Marketing Initiative and Rural Development), four research teams carried up four in-depth case studies of Organic Marketing Initiative. We define the OMI as a set of actors involving the participation of organic producers, which aim is to improve the strategic marketing and the additional value to the basic product. This contribution presents some relevant results of the French case study, Bio Bourgogne Viande (BBV).

Born in July 1994, BBV was initially formed by 30 organic beef producers. It was dealing entirely in organic livestock, collecting and marketing members' animals and was mainly base on Charolais cull cows. The starting motivation of the founders was to improve marketing around well organised and short supply channels in order to maintain close direct contact between producers and consumers (for example by owning butchers' shops).

At the end of 1995, the need to organise the organic beef meat supply chain to cope with increasing consumer demand led to a partnership between FNAB (national organic producers association), the multiple retailer Auchan and the wholesaler SELVI (slaughterer). A fixed price grid ensured good returns to producers and allowed investments in three retail butchers and, in 2001, in processing (cutting and deboning) facilities. After a period of strong partnership in a context of increasing demand (mainly due to BSE crisis), the substitution of Selvi by Soviba, an important national industrial group, led to a less favourable price grid and to the establishment of more "classical" market relationships (uncertainty).

With now 100 producers involved and a turnover of 2.5 million € (2001), BBV is redirecting its strategy. The contribution will present the result of a SWOT analysis (Strengths- Weaknesses – Opportunities – Threats). Authors will focus on the success factors in a dynamic approach (learning curve).

---

<sup>5</sup> Ecole Nationale Vétérinaire de Toulouse, 23 chemin des Capelles, 31 076 Toulouse cedex 3  
Tel : (00 333) 5 61 19 39 77 Fax : (00 33) 5 61 19 39 24 E-Mail : p.sans@envt.fr

<sup>6</sup> Institut National de la Recherche Agronomique – Urequa, Le Mans (France)

<sup>7</sup> University of Helsinki - Mikkeli Institute for Rural Research and Training Mikkeli (Finland)

<sup>8</sup> Research Institute of Organic Agriculture (FiBL) Frick (Switzerland)

# CURRENT PRACTICE AND PROSPECTS OF ORGANIC LIVESTOCK PRODUCTION IN GREECE

Georgios Arsenos, Fortomaris, P., Banos, G. and Zygoiannis D<sup>9</sup>.

The science and practice of livestock production is changing towards sustainable systems with emphasis on animal health and welfare as well as food safety and quality. Livestock production in Greece accounts for about 30% of the total value of the agricultural sector. Operating within a continuously changing socio-economic environment, the agricultural sector is gradually losing its relative importance. However, it is still a key factor of the Greek economy employing 17% of the work force and accounting for 6.5% of GDP. According to a recent classification of the Greek agricultural holdings, 75.1% of them are related to crop production, 1.3% are livestock enterprises and the remaining 23.6% are mixed type crop-livestock enterprises. Although the idea of organic production has existed from the beginning of the last century and has been applied with great success in other European countries, for at least two decades, in Greece it has only recently become the focus of significant attention from governmental and private organisations, consumers and farmers. Regardless of the absence of a long-established consumer market for organic products, the idea of conversion of existing production systems to organic has proven useful and financially rewarding. There are now about 1200 organic livestock enterprises in Greece. It is estimated that the number of organically reared animals is 219,628 sheep and goats (1.5% of total), 11,138 cattle (1.7% of total), 1,773 pigs and 59,453 layers and broiler chickens. Before making assumptions about the future of organic livestock production, in the absence of firm evidence, it is necessary to have some background information about current practices in existing livestock enterprises. We held a series of informative discussions with farmers and key representatives of organic certification organisations and those associated with organic and conventional livestock production in Greece, including dairies, abattoirs, food processing units, wholesalers, importers, traditional butchers and supermarkets. The current practices are described and their problems identified and application of such information to the development of organic livestock sector is further discussed. Also, recent criticisms of marketing practices for organic milk and meat products are discussed. In our view, the choice practise of different organic enterprises rests with the farmers and their advisors, but will be greatly dictated by market needs and prices, at local, national and international level, in line with the countries economy. Bearing in mind that organic livestock production is more advanced in other European countries of the Mediterranean basin, which have similar climatic and soil conditions, it is reasonable to expect that organic products from Greek livestock enterprises will face strong competition within the European market. It is concluded that there are important opportunities for organic livestock production given that specific sectors will be given priority. We take the view that the emphasis in converting of existing livestock enterprises to organic ones should be directed towards sheep and goat production.

---

<sup>9</sup> Department of Animal Husbandry, School of Veterinary Medicine, Aristotle University of Thessaloniki, P.O. box 392, 54 124 Thessaloniki, Greece.

Correspondence: Dr Georgios Arsenos, e-mail: [arsenosg@vet.auth.gr](mailto:arsenosg@vet.auth.gr)

# IMPACT OF ECONOMIC INVESTMENT ON ANIMAL WELFARE. A CASE OF STUDY

**Caterina Contini, Andrea Martini, Valentina Ferrante, Omodei Zorini, Paola Migliorini, Giangiacomo Lorenzini, Samanta Rosi Bellière.<sup>10</sup>**

In a dairy organic farm of the Florence province, investments to increase the animal welfare were carried out.

These concerned:

1. housing structures adjustment (floors, ventilation)
2. creation of new boxes for nurse cows
3. creation of new pasture surfaces for steers, dry cows, and for milking cows.

The present work would investigate on economic investments impact to improve the animal welfare. For this aim we estimated the welfare index, following the ANI 35L method (elaborated by H. Bartussek for the dairy cows and fitted to the Italian farms), related with investments done in this farm.

---

<sup>10</sup> University of Florence

# SUSTAINABLE PRODUCTION METHODS AND ECONOMIC DEVELOPMENT OF THE MARGINAL RURAL ZONES OF THE ITALIAN CENTRAL APENNINE

Francesco Ansaloni and V. Cammertoni<sup>11</sup>

Currently, the diffusion of sustainable production methods, organic agriculture, represents, particularly for the Apennine hill and mountains rural zones of Central Italy, an interesting case for study, because of the offer of quality alimentary products and recreational services (rural tourism and integration with that traditional), guardianship of the natural patrimony, landscape and territory and growth of the levels of occupation of the local communities. Analysis consists in the examination of two cases of study. The first one concerns the application of a Plan of development of sustainable agriculture, directed to the diffusion of the organic agricultural method, in the National Park of the Sibylline Mountains, a protected natural area located among the regions Umbria and Marche, with a surface of 69.621 ha and 3.505 farms.

The second case study deals with local development of the wool quality chain and manufactured textile products from natural materials using sustainable methods. The goal here is the adoption of organic farming introduced in some small farms and small processing industries in Umbria and the Marches. Their business consist in the production of dyed natural animal origin fibres (wool, mohair, angora, alpaca) and traditionally handcrafted and industrial quality manufactured textiles (carpets, blankets, curtains, knitwear, etc.). The natural dye is derived from plants (guado *Isatis tintoria*). In 2002, in support of this business enterprise, the consortium *Arianne* was founded, an International Consortium for the Study of Natural Textile Fibres (vegetable and animal) production systems and processing. *Arianne*'s membership includes public corporate research institutes (ENEA, UNICAM and other foreign universities), the Sibylline Mountains National Park and AIAB (the national organization for the certification of the organic farming methods). The core business of *Arianne* is to carry out research and create programmes for the development of natural textile quality chain products in addition to offering services to businesses (collaboration for the development of partner-economic activities in the area in question, technical support, quality certification and professional training). The main characters examined of the cases of study refer to the products and offered services, the used resources, the objectives, the carried out interventions, the factors of success and weakness, opportunity of development and problems. The conclusive considerations concern the necessary base conditions for the development of sustainable agricultural activity and the perception of sustainability concept between the private and public operators.

---

<sup>11</sup>Department of Veterinary Sciences, University of Camerino (UNICAM) francesco.ansaloni@unicam.it

# "WHY BUYING ORGANIC MEAT AND MILK? A QUALITATIVE STUDY ON THE ITALIAN MARKET"

Danilo Gambelli, Simona Naspetti and Daniela Vairo\*<sup>12</sup>

The interest of Italian consumers towards organic food has rapidly grown during the last year, especially after the 1999 BSE crisis.

Albeit the growing demand, the attitudes and motivations of Italian consumers towards organic food remain still largely unexplored, while previous research has shown that the consumer knowledge of organic food is quite low.

In this paper we present the results of the analysis of consumer perception, attitudes and motivations towards organic food, with specific focus on organic milk and meat in Italy. The study has been conducted as part of a large qualitative survey on consumer perception of organic products, carried out as part of the EU-funded research project "Organic Marketing Initiatives and Rural Development".

The implications of the results of the consumer survey are finally discussed in the light of different scenarios of the organic sector.

---

<sup>12</sup> Respectively Researcher and Research Assistants, DIIGA, Università Politecnica delle Marche, Via Breccie Bianche, 60100 Ancona, Italy.

Daniela Vairo: DIIGA, Università Politecnica delle Marche, Via Breccie Bianche, 60100 Ancona, tel.: 071/2204994, fax: 071/2204858, e-mail: [daniela@agrecon.unian.it](mailto:daniela@agrecon.unian.it)

# ECONOMIC ASPECTS OF ORGANIC MILK PRODUCTION IN THE NORTH ITALY APPENNINE

Danio Sarti e Guido Bazzani<sup>13</sup>

In the Italian hilly areas the form of more diffused agricultural farm is family type. The activity of breeding is the only one that allows the full time employment of the scarce existing agriculture working unities.

The pedo-climatic and environmental conditions, often difficult, determine an increase of production costs and lower the competitiveness both towards the lowland farms and towards farms of other north Europe countries.

The scarce availability of the quotas milk and their elevated cost of purchase for the adjustment of the productive structures have represented a notable obstacle.

The interventions of Community Agricultural Politics, Agenda 2000 and milk OCM, will determine some substantial changes in farms economic order. Only the farms that will know how to adjust can be survived. The risk of a further depopulation of these disadvantaged areas is very strong.

The objective of this study is to analyze the economic results of a dairies organic farms of the Bolognese Appennine characterized by different breeding techniques.

These dairies organic farms has furnished their technical and accounting data from 1995. Still, they are in observation beside the Economic Operational Unit of the Institute of Biometeorologia (Consiglio Nazionale delle Ricerche) in Bologna.

From the accounting point of view, for the years 1999-2002, six dairies farms have been examined. All dairies farms adopt the cultivation method according to the technique of organic agriculture. About breeding technique, instead, only four dairies farms produce organic milk. The two remaining farms to adopt the High Quality technique milk production.

This study consists in the analysis of the economic aspects of organic and conventional milk production. Moreover, on the base of the productive results of the last two years, the choices adopted from farms, Agenda 2000 changes and OCM milk guide lines, will be realized projections of the economic results of the next three years.

---

<sup>13</sup> IBIMET - Istituto di Biometeorologia - Sezione di Bologna;  
CNR - AdR di Bologna  
Via P.Gobetti, 101 - 40129 Bologna (Italy)  
Tel. +39 051 6398037 e +39 051 63980; Fax +39 051 6398133

# **Production costs and profitability of organic Parmigiano–Reggiano cheese and organic liquid milk in Northern Italy.**

**Alberto Menghi<sup>14</sup>**

The increased interest of Italian consumers and consequently the increased interest of retailers towards organic milk and organic cheese, has offered an opportunity to the milk producers to convert their farm into organic in order to diversify their production. To investigate the organic milk chain, an empirical survey has been carried out in 2002 on two different samples of dairy farms: farms producing organic Parmigiano–Reggiano cheese and farms producing liquid milk. According to the methodology elaborated at European level by the European Dairy Farmers (EDF) the production costs per litre of milk have been calculated and compared to the production costs of similar samples of conventional dairy farms. Beside that the comparison between the technical parameters of each sample, are able to explain the differences in production costs.

A further analysis concern the profitability of the milk according to the two different destination: milk processed into cheese or milk sold to the industry. The empirical results show that from a technical point of view organic farms can be, in both cases, competitive with the conventional ones. In terms of profitability the milk processing by the Parmigiano-Reggiano dairy producers, provides a positive economic result, they can be considered to compete in an oligopoly market where the product is scarce and they are in the position of price makers. Those selling liquid milk to the industry have to compete at EU level facing a relatively low price if compared to their production costs, showing clear difficulties to stay in the market.

---

<sup>14</sup> CRPA S.p.A (Research Centre on Animal Production) Reggio Emilia - Italy

# **Animal Health and welfare advice and guidance for organic livestock producers – do attitudes of the advisers matter?**

**Malla Hovi M<sup>15</sup>**

While there are subsidised advisory services available for organic farmers, particularly before and during the conversion period, these services tend to focus on the conversion of the soil and whole farm management rather than the conversion of livestock, which often takes place towards the end of the farm conversion. In the UK, organic livestock producers depend heavily on the producer services of their certification body or their local veterinary advice on animal health and welfare related matters. Statutory health planning on organic livestock farms in the UK has recently highlighted the need for coherent guidance in this area.

This paper aims at identifying issues that arise from the attitudes of the different players who are involved in guidance and advice on animal health and welfare matters on organic livestock farms. To do so, it draws from four different studies that the author has recently been involved in. One study looks at inspector, veterinary and livestock adviser attitudes to organic standards and their experience in working with organic farmers. Another is a case study of well-established organic dairy farms and their veterinarians in relation to mastitis control. The third study looks at inspector approach to welfare assessment and guidance on organic livestock farms. The fourth study is a development project, with the aim of building a decision support system for vaccine use for organic livestock producers. All these studies highlight the potential influence both adviser and farmer attitudes can have on the “outcome” of advice and/or guidance process. E.g. inspector attitudes can either steer the inspection process and can encourage the farmer towards input substitution or system redesign, depending on the emphasis the inspector puts on issues like non-use/use of conventional veterinary medicinal inputs. Potential actions that would help the advisory/guidance process towards system redesign rather than input substitution are discussed.

---

<sup>15</sup> Veterinary Epidemiology and Economics Research Unit, The University of Reading, Reading, UK

# **Impact of socio-demographic factors on consumption patterns and buying motives with respect to organic dairy products in Switzerland**

**Jörn Sanders and Toralf Richter<sup>16</sup>**

The Swiss organic dairy market has grown by 10 – 15% annually between 1996 – 2002. In 2002, 169 – 175 Mio kg of organic milk were produced. This corresponds to a market share of approximately 4,5% by volume. In order to assess the probability of a continuation of this market expansion, it is necessary to have an in-depth understanding of organic consumer trends as well as buying motives and expectations. Therefore, data from three different sources (household budget survey from the Swiss Federal Statistical Office, household panels of the GfK Switzerland and results from qualitative laddering interviews with consumers) are compiled to show the impact of income level and children on motivation and consumption patterns of households with respect to organic dairy products.

The results indicate that both income level and children have a clear impact on buying motives and consumption behaviour. High-income households have the highest reach of consumers and have the highest expenditures for organic food. They buy organic food mainly for altruistic and hedonistic reasons (environmental protection, food quality, taste, enjoyment, animal welfare). In contrast to this, medium income households have a relatively low reach of consumers and their expenditure for organic food is also relatively low. The number of reasons to buy organic products is smaller. Besides animal welfare, these households buy primarily organic food in order to stay healthy.

Households with children have a relatively high reach of consumers, however their expenditures for organic food are limited. Number and kind of motives of this group are similar to those of high-income households. In contrast to this, households without children have a relatively low reach of consumers but high expenditures for organic food. This means that at least a small part of this group has high expenditures for organic food. Animal welfare and staying healthy are the two most relevant motives of this group.

---

<sup>16</sup> Research Institute of Organic Agriculture, Switzerland

# ORGANIC STANDARDS: BY WHOM AND FOR WHOM?

Willie Lockeretz<sup>17</sup> and Vonne Lund<sup>18</sup>

The rapid growth of the organic market greatly complicates the already difficult task of setting appropriate organic standards because it brings into the process new interest groups with differing perspectives on organic farming. In particular, a much greater role is now played by food wholesalers and retailers, and more attention is being given to the (presumed) expectations and wishes of a broad segment of current and potential consumers of organic foods (Giovannucci, 2003). This raises a challenging question: Who should define what organic farming is? Organic farmers? The food industry? Organic consumers? Governments? The question is especially significant for organic livestock standards, which are much less fully developed than for crop production and which, along with the many environmental and health-related considerations that go into crop standards, also involve difficult ethical issues relating to animal welfare and the human-animal relationship.

---

<sup>17</sup> School of Nutrition, Tufts University Boston

<sup>18</sup> Lund University Sweden

# Consumer perceptions and production realities - can they be brought together?

Cath Milne<sup>19</sup>

The product attributes that are perceived by consumers of *organic* produce include high animal welfare and non-use of 'pesticides'. The price premium that the consumer is willing to pay for organic produce is in part due to these attributes and the associated perceived improvement in food safety. Recent 'food scares' such as BSE have shown how great an impact changing consumer perceptions, and the confidence they have in a product, can have on the demand for food products. Ensuring that consumer perceptions of organic produce and the realities of production coincide is therefore of fundamental importance to the viability and financial sustainability of organic farming. But, in some instances differences between consumer perceptions and the reality of production can be identified. Theoretically, resolving these differences could be achieved either by the provision of more accurate information to the consumer or through modifying production practices to better meet consumer demands/beliefs. In practice, resolving differences between consumer perceptions and production realities can be highly complex. New information provision must avoid disillusioning consumers in ways that will affect their purchasing behaviour, and in some cases, adjusting farm practices either may not be possible or may just change the nature of the problem.

This paper will explore some of the complex socio-economic issues as demonstrated by the case of external parasite control in sheep. Sheep production is perceived by many consumers to be one of the most 'natural' of systems and by association to be largely void of animal welfare problems compared to poultry or pig production. Nature is however red in tooth and claw, and some of the external parasites that affect sheep cause major losses in animal welfare (and productivity) making their control highly desirable. Effective control measures that do not use veterinary medicines are limited whilst using them can have negative side-effects for the environment and should be minimised in organic systems. Thus the choice is between a range of options all of which have potentially negative outcomes that could disillusion the consumer. Taking this into account and applying the organic farming principle that livestock systems should be designed to minimise the disease and pest challenge to animals and thereby protecting both animal productivity and welfare, many of the regions in Scotland that produce sheep could be deemed unsuitable for that purpose. A solution is therefore not easy to identify and some options have potentially far reaching effects.

---

<sup>19</sup> Economics Dept., SAC, Ferguson Building, Craibstone Estate, Bucksburn  
Aberdeen AB21 9YA, Email: [c.milne@ab.sac.ac.uk](mailto:c.milne@ab.sac.ac.uk); Tel: (+44) (0) 1224 711088