THE ECONOMICS AND POLICY OF ORGANIC FARMING: WHAT CAN BE LEARNED FROM THE EUROPEAN EXPERIENCE?

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As a background to the discussion, Stephan Dabbert pointed out that organic farming represented selective use of particular technologies, including the choice *not* to use some types. This decision not to use technology may be made in order to achieve objectives which can be economic or non-economic. Across Europe there were, in 1999, around 3 million hectares (2.5 per cent of the cropped area) under organic agriculture. There were major differences across regions, with some having negligible amounts and others with up to 10 per cent. There were a number of reasons for recent growth, but the most important included increased demand and hence price premia for organic products, plus the influence of agricultural policy measures. Such measures included the introduction of EU-wide certification schemes as well as the various agrienvironmental programmes, which had been developed following the 1992 CAP reforms.

During the first session, Hiltrud Nieberg and Frank Offermann (Germany) gave a brief summary of a study of organic farming across 18 EU countries. Results showed crop yield reductions of between 10 and 50 per cent, depending on crop, and milk yield levels varying between 80 and 105 per cent of those from conventional herds. While there was some reduction in variable costs, the key to profitability lay in price premia obtained for organic products which varied across crops (wheat, 20 to 200 per cent; potatoes, 80 to 500 per cent; milk, 8 to 37 per cent) and also across countries. Simultaneous differences in price across countries could not be easily explained. Discussants pointed out the lack of 'transparency' in many of the markets for organic products. Organic farm profitability varied between plus or minus 20 per cent of the conventional systems and showed inter-year movements very much in line with those seen in conventional systems.

Discussions centred upon the objectives of organic farmers. Were they very different from those of conventional farmers? It was suggested that the early adopters were largely motivated by non-economic factors but, since then, and as many conventional systems had come into crisis, economic motives had underlain the decisions of later converters.

During the second session, discussion turned to questions relating to the future of organic farming in Europe. Danilo Gambelli (Italy) presented an approach to these questions using 'scenario analysis' and a 'fuzzy expert

system'. His project team had acted as experts to define a series of 26 variables. These were classified either as external (eight, such as food scares, farmers' altruistic concerns, CAP reforms) or internal (18, classified as 'micro', including domestic demand for organic products, and so on; 'meso', notably availability of organic products, and 'macro', including, for example, the political climate with respect to agriculture). The experts next constructed a series of 200 rules linking the external and internal variables. Each variable could be designated 'high', 'medium' or 'low'. Five scenarios were defined by setting the external variables to specified levels and designated by a title ('Gloomy Liberalization', 'Organic Paradise' and so on). The fuzzy expert system was used to find values of the internal variables consequent upon the levels of the external variables as specified by the scenario. Rules could have timings specified before the variables took effect, which resulted in a time trajectory for the scenario to be played out. The five scenarios were analysed and the key results showed that the progress of organic agriculture in Europe would probably be most sensitive to three factors. These were the implementation of the agrienvironmental policies relating to Agenda 2000, the progress or otherwise of the WTO negotiations, and countries' attitudes towards food safety and genetic modification.

Discussion centred on the probable impacts of the WTO negotiations, which the group thought might be quite positive or somewhat negative, depending on the detailed outcome. It was also pointed out that organic farming was subject to the same vagaries of policy as conventional agriculture. The impact of policy on the sector depended very much on the commodities being considered (whether supported, like cereals, or unsupported, like vegetables) and also on methods of implementation within individual member states.

During the third session, Nic Lampkin (UK) led a discussion relating to the changing policy framework for organic farming in Europe. It was recognized that policy support through, firstly, the definition of organic food (regulation 2092/91) and, secondly, direct support in some countries using agrienvironmental programmes (regulations 2078/92) had also contributed in a major way. There would probably be further support for organic agriculture in EU policy circles because it could represent a set of ethical considerations (for example, environmental protection, animal welfare, sustainability) with which policy makers could identify. Other arguments for organics, based on 'infant industries' and 'public goods', were also used in different countries. The potential impact of Agenda 2000 was not yet clear, since many countries had not yet finalized their implementation plans. Progressive 'decoupling' was likely to be beneficial where yields per hectare were lower than in conventional systems.

The implementation of the EU's Rural Development Regulation was seen as an important issue for organic production. But the principle of 'subsidiarity' brought the possibility of very different levels of support for organic systems across countries and hence the further possibility of conflicts relating to the 'level playing field' for intra-EC trade. There was also consideration of the WTO negotiations where organic standards were not seen as trade restricting. But the future of direct payments for organic systems was uncertain; were they 'green box' or' blue box'? Were payments for environmental benefits to be

regarded as trade distorting? If there were such environmental benefits, they needed to be identified and quantified. Were consumers already paying for environmental benefits in the premia obtained?

But a central question still remained about whether, and if so how, organic systems should be supported. Any payments from the public purse needed to be justified by the value of the public environmental benefits achieved. The identification and valuation of these benefits represented a considerable challenge for researchers in organic agriculture.