EDITORIAL: THE RECURRING ISSUE OF RESEARCH IN ORGANIC AGRICULTURE

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In a previous JOS editorial, Paul Kristiansen (2011) discussed some of the positive and negative realities of developments in organic agriculture in our region. In the subsequent editorial, Brendan Hoare (2011) suggested that developments in 'servant leadership' would help to address some of these challenges. Here I will examine the issues involved in the areas of research and development.

Public funding for research and development (R&D) in organic agriculture has been, and remains, limited in Australia and New Zealand[1]. In Australia this has amounted to around $250,000 per year over the last 13 years, largely from the Rural Industries Research and Development Corporation (RIRDC; Kristiansen 2011). In NZ the investment has been somewhat higher – NZ$2.1 million over the period 2006 to 2009 – but most of this was for the provision of advisory services (Organics Aotearoa New Zealand 2009). In both countries, these expenditures are a small fraction of that going to conventional agriculture. In Australia approximately $490 million a year is invested in R&D by the rural industries and the government through the Rural Research and Development Corporations (RDCs) (Productivity Commission 2011). Thus, money provided for organic agriculture R&D by RIRDC is under 0.1% of their total investment via the RDCs in agriculture. This percentage is considerably less than both the 2.9% of land under organic management (Wynen *et al.* 2011) and the 1% of total market value of organic products mentioned by Mitchell *et al.* (2010).

There is no public or private organization in Australia dedicated to carrying out research in organic agriculture. Examples of such bodies in other countries include: the Swiss Research Institute of Organic Agriculture (FiBL), founded in 1973; the Louis Bolk Institute in The Netherlands, established in 1976; the Organic Research Centre 'Elm Farm' and the Henry Doubleday Research Association (HDRA), established in the UK in 1980 and 1984, respectively; and the Norwegian Research Institute for Organic Agriculture (NORSOK), founded in 1987.

The USA has its Rodale Institute (since 1947), the Organic Farming Research Foundation (since 1990) and a number of other organisations. Recently, the US Department of Agriculture's Economic Research Service has become directly involved in research into organic agriculture – expecting to spend US$19 million in its Organic Agriculture Research and Extension Initiative in 2011-12 (USDA 2011). In Europe, there are two models of agricultural research. One is a virtual centre that receives money for research, primarily from the government, and commissions experts in diverse institutions to do the actual work. This example seems to work well in Denmark. In Switzerland (the other model), all of the researchers in organic agriculture are located in one institute, FIBL.

Anybody who visits FIBL can't fail to be impressed by their operation. Founded almost 40 years ago, FIBL has now grown to an institute with approximately 90 full-time researchers, working in a diverse range of areas. These include: soil fertility (maintaining and improving); resisting pests and diseases (by promoting beneficial organisms, applying direct control measures, and improving cultivation techniques); quality of organic products and the processing involved. Veterinarians are engaged in research into udder health and treating and preventing parasites; by optimising husbandry, improving feeding and pasture regimes, and testing homeopathic remedies and plant preparations. The socioeconomics division analyses business problems on organic farms, pricing of organic goods and cost recovery levels, agricultural support measures, and marketing issues. Numerous projects and data collection programs are taking place on more than 200 working organic farms throughout Switzerland. There is no research demonstrating the need for organic agriculture, nor is there education for the consumer about how to shop. The emphasis is on how organic agriculture actually works, and how to optimise the production (taking into account soil and environment conservation), processing, and social and economic benefits of organic agriculture.

One could well ask: what does all this cost, and where does the money come from? In total, the Swiss government spends about AU$14 million on organic agriculture, of which about AU$9.2 million goes to FIBL, and the rest to state research stations and universities. FIBL itself works with a budget of around AU$22 million per year, of which AU$14.6 million goes to research, and AU$3.8 million to extension and training. Another AU$3.2 million is spent on organic agriculture in developing countries. Around 40% of the total for

[1] Thanks to Brendan Hoare for provision of information on the situation in New Zealand.

research comes from commercial sources (18%) and charitable trusts (22%). Commercial sources also provide over 40% of FIBL's funding for extension and training.[2]

Just imagine having access to this level of support in Australia. Here, the Trust for Environmental Research and Education ('Organic Trust', http://organictrust.ofa.org.au) was established in 2010. Its priorities are educating the consumer about what can be trusted in the shops as being genuinely organic; developing ways in which to manufacture and provide tailored compost to the farmer (also broadacre); and educating the general public about what organic agriculture does (such as minimizing externalities such as pollution and carbon footprint). With access to the level of funding available in Switzerland they would be in a much better position to achieve their goals – a must for the growth of organic production in Australia. Australia's organic sector growth over the past decade, as measured in hectares under organic management, was 57%, well below the 123% global growth of the sector over the same period (Paull 2011).

At the State level, the Victorian Government invested AU$1.08 million, from 2008 to 2011, to develop the organic industry. Part of it was used for research and education. This included: industry data collection to identify the value of the organic industry in Victoria; supply chain development; and conversion to organic methods. There are few other organizations investing in research in organic agriculture in Australia, but those that are tend to focus on activities for which it is possible to recoup costs, such as the collection of data on the organic market in Australia by the Biological Farmers of Australia (BFA) (Mitchell *et al.* 2010).

In New Zealand, the situation is a little more positive. From 2006 to 2009, Organics Aotearoa New Zealand (OANZ) received NZ$2.1 million for the provision of advisory services. However, research funding in the public and private sectors in New Zealand has also been minimal. Out of the Biological Husbandry Unit (BHU), set up at Lincoln University by Bob Crowder in the 1980s, the BHU Organics Trust was formed in 2001 as a cooperative initiative between Lincoln University and the NZ Organic Movement. In January 2011, it was recommended that the Trust create an agricultural/horticultural science and extension centre dedicated to permanent agri/horticultures, such as organics, agro-ecology, biological farming, etc. This resulted in the establishment of the BHU Future Farming Centre (FFC). No figures were mentioned, however, for actual spending on research in organic farming.

Much has been said in the past about the reasons for the lack of R&D money in organic agriculture. Calculations have been made in Australia about contributions by organic farmers to obligatory research levies, comparing it with allocations of research funding directly to the organic sector (e.g. Wynen 2003) and finding it wanting. Perhaps the recent Report by the Productivity Commission (2011) provides some spark of hope for increased public funding for research into organic agriculture in the future. It recognizes that research into non-commodity specific areas (as organic agriculture is) is neglected under the current arrangements, and suggests that this should be addressed in future arrangements. Without such initiative, the future of organic farming in Australia will continue to be disadvantaged. We remain hopeful.

References

BHU FFC (Biological Husbandry Unit Future Farming Centre) 2011. Launch of the BHU Future Farming Centre 31 October. Leaflet.

Hoare, B. 2011. Vigilant servant leadership. Journal of Organic Systems, 6(2): 2.

Kristiansen, P. 2011. Tale of two realities: aligning growth with support in the Australian organic movement. Journal of Organic Systems, 6(1): 1-2.

Mitchell, A., Kristiansen, P., Bez, N. and Monk, A. 2010. Australian Organic Market Report 2010. Biological Farmers of Australia, Chermside.

Organics Aotearoa New Zealand 2009. Organic Advisory Programme Ends. Media Release 30 June. www.oanz.org.nz/news/organic-advisory-programme-ends.

Paull, J. 2011. The uptake of organic agriculture: a decade of worldwide development. Journal of Social and Development Sciences, 2(3): 111-120.

Productivity Commission 2011. Rural Research and Development Corporations. Productivity Commission, Melbourne.

USDA 2010. Grants: Organic Agriculture Research and Extension Initiative (OREI). www.csrees.usda.gov/fo/organicagricultureresearchandextensioninitiative.cfm

Wynen, E. 2003. Organic farming in Australia - Research Levies and Expenditure. RIRDC, Barton.

Wynen, E., Mitchell, A. and Kristiansen, P. 2011. Organic farming in Australia. In: Willer, H. and Kilcher, L. (eds.) The World of Organic Agriculture. Statistics & Emerging Trends 2011. International Federation of Organic Agriculture Movements and Research Institute of Organic Agriculture, Bonn and Frick. pp. 219-222.

[2] Thanks to Prof Dr Urs Niggli, Director FIBL, for details.