

Italian networking of public experimental sites working on Organic Farming: an experience of networking in research

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Abstract

Research in organic farming, especially with an agro-ecological approach, is strictly linked to local conditions and interactions among several variables. The paper will present an example of a process developed in the Italian context to integrate and harmonize research in organic farming from different research stations, with different local conditions. Collecting similar and comparable data from different research stations participating in the network can have an interesting impact in results of organic farming experiments, due to high number and variability of data. ARSIA Toscana, with the aim of creating an Italian National Network of public experimental stations working in organic farming, involved FIRAB as a facilitator of the participatory process. The proposed process follows two parallel paths: individual questionnaire to single experimental sites to know the specific activities in place on organic farming and a series of meetings with direct involvement and exchange among researchers and policy makers from different regions to comment results of the questionnaire and future development of organic research in public experimental stations. The main outcome of the process has been the choice of a specific transversal topic to build the network: the development of synthetic agro-environmental indicators.

Introduction

Research in organic farming, especially with an agro-ecological approach, is strictly linked to local conditions and interactions among several variables. For this reason, the establishment of a national network of experimental activities can be particularly useful to collect a higher number of data from different agro-ecological conditions. However, different research centres and scientists often use different methodological approaches and data collection procedures.

In Italy there are several public experimental sites, belonging to Universities, regional agencies for rural development and other public research centres. The Italian organic sector had 1.106.684 ha in 2009 with a variation of +10.4% in 2008-2009. The total Italian operators involved in organic were 48.509. The domestic purchases of packaged organic products showed an increase in value in 2009 of 6.9%⁵. With this figures Italy has a leading position in Europe and at global level. Considering the

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⁵ Survey made by ISMEA, (Institute of Services for the agricultural and food market) in 2009.

growing interest in the country, some of the public research centres started to work on organic farming with different aims (regional priorities, specific interest of the involved researchers, request by local farmers, etc.), using different approaches, often focused on specific crops. To harmonise these public research activities, the Tuscany regional agency for rural development (ARSIA Toscana) involved the Italian Foundation for research in organic and biodynamic farming (FIRAB) to help in developing a National Network of public experimental sites working on Organic Farming.

The Tuscany regional agency for rural development (ARSIA Toscana) is working since several years in organizing periodic meetings among researchers responsible for the management of experimental sites focused on organic farming. This activity has led to interesting experiences and to the creation of consortia for the submission of research projects. The need for systematic networking activity and continuous exchange of experience and information among these research centers was one of the major outcome of these meetings. Such network could benefit the Italian organic farming sector as a whole and could provide relatively cheap services for the national research sector such as reliable and comparable data. FIRAB (Italian Foundation for research in organic and biodynamic farming) has been created in 2008 by AIAB (Italian Association for Organic Farming) and other environmental and social organization, with the economic support of private organic companies and farms. The main aim of FIRAB is to promote applied research in organic farming, giving a central role to farmers; in particular FIRAB staff have a special expertise in facilitating the dialogue between researchers and producers. This paper presents the participatory process put in place for the network creation and the results of the survey on organic farming research in public experimental sites, which was the first step undertaken in this direction.

Material and Methods

The process proposed by FIRAB in 2008 follows two parallel paths:

a survey on the activity of public experimental sites on organic farming

a series of meetings to presents survey results and to use it as input for developing the networking process,

The participatory process started with a public meeting organized in 2008 to define national research priorities in Organic Farming.

During 2009 and the beginning of 2010 a survey on experimental sites' activities took place involving most of the participants to the first meeting. The choice was to include just public experimental sites of public institutions and research centres, and do not include all experimental activities in organic farming. The one to one interviews have been done by telephone, taking specific appointment with the person responsible for the experimental station.

After the survey, a second public meeting took place to present the survey results to interested people working in public administration and responsible for public experimental station all over Italy. During this meeting the participants worked also in developing the proposal for the Italian Network of experimental sites working on Organic Farming, defining the main topic to start the collection of comparable data.

After the topic approval by public administration involved, a second survey took place to have a deeper knowledge of the current and past activities related to the defined topic. An e-mail with a specific questionnaire has been sent to all the public

experimental sites involved in the process. A final meeting took place to present the second survey results and to define the main point of an action plan for the network. The defined action plan was the base for a concrete proposal to be submitted to local government for funding opportunities to sustain the partnership activities.

Results

The survey results: activity of Italian public experimental sites on organic farming. Studies of the variation in research approaches and activities of experimental sites that works on organic farming provide evidence of the potential for improvements and reliable data on Italian organic farming systems. It is important to investigate actual systems, covering several representative agro-environmental areas to define possibility for further improvements. In 2009-10 FIRAB, developed a survey to define the number of public experimental sites involved in organic farming and to collect information on their existing experience and current activities on agro environmental indicators. As described above, the surveys have been part of the process to develop the national network of experimental sites working in organic farming. The 2009 survey showed that Italy has presently 36 public experimental sites active in organic farming research. These sites are scattered all over the country but are more concentrated in Emilia Romagna (4 sites) and Trentino Alto Adige (2 sites), focused on all the most important crops grown in these regions. Experimental sites are less common in South Italy, which is against the organic production data (higher in the South). The majority of the experimental sites are working on arable (22) and vegetable (21) crops. A smaller number of experimental sites work on viticulture, olive-growing and fruit trees. Ten sites out of 36 work on three or more types of crops. Fourteen of the experimental sites are more specialized and focus on only one specific crop type, mainly viticulture or arable crops. The survey showed that some of these experimental sites are already collaborating with one another whereas others are more isolated and do not have any knowledge of the activities ongoing outside their region. In particular, two crop specific sub-networks have been identified: one on winter cereals (durum wheat) and another on viticulture. The coordinators of these two networks have been involved in the participatory process to create the national network. This crop-centred approach to research reflects that commonly used in conventional agriculture instead of the systemic approach which is more appropriate for organic farming. The land dedicated to organic farming experiments is generally part of larger experimental sites also working on conventional agriculture. Often, the results of the experiments on organic systems are compared with those of conventional systems carried out at the same sites. Only one site, managed by ARSIA Toscana, is working only on organic farming. In other cases (9) public research centers have specific agreements with private organic farms to use part of their land as experimental sites. The four cross-cutting topics proposed for the 2010 survey were: crop rotation and diversification, soil quality, evaluation of produce quality, and economic evaluation. Crop rotation and diversification are used as baseline for the experiments but are not themselves object of innovation activities. Analyses of soil quality are done only when specific funds are available. For quality and economic evaluation, still few centers are collecting data on these aspects and mainly in a heterogeneous way.

Steps of the participatory process. The first meeting took place in Alberese (Grosseto, Southern Tuscany) in November 2008, with the participation of 90 persons of different backgrounds. The participants, divided in five different groups based on different food production chains, had the opportunity of exchange ideas and indicate

priorities for research in organic farming. In May 2010 a second meeting was organised by FIRAB in Rispeccia (Grosseto). This meeting refined the objective of creating the national network of experimental sites:

- To exchange information and data.
- To possibly developing more complex research projects, by comparing the same type of experiments in long-term experiments conducted in different agro-ecological conditions.
- To optimise resource use in organic farming research.
- To standardise data quality as to carry out joint elaboration and publication
- To create synergies for the development of joint methodologies.

One main point of discussion during the meeting was to choose a cross-cutting topic aimed to compare data gathered in all the sites interested in the network, considering the high differentiation level of research activities among sites. The chosen topic was the development of synthetic agri-environmental indicators. The necessity of reorganising and fixing methods and indicators to make them available and comparable came out. This proposal, further refined by FIRAB and by Prof. Paolo Bàrberi (Sant'Anna School of Advanced Studies, Pisa), was presented in a meeting with regional public administrators which took place in Rome in November 2010. This meeting set the ground for a subsequent workshop aimed to develop the set of agri-environmental indicators for common use. In this view, the survey was integrated with information on the kind of agri-environmental indicators – if any – previously assessed at the different experimental sites in recent years. The workshop took place in Florence in December 2010 and was characterized by lively discussion, focused around the comparison of the different indicators already used and proposing possible solutions for future harmonization of assessment protocols. The next steps will be to prepare a detailed proposal on this topic and look for funding opportunities.

Conclusions

The process developed to create this network, based on a participatory process which directly involved the interested stakeholders – in this case people responsible of the management of experimental sites in different parts of Italy – represents a positive experience which could be reiterated in the organic farming sector in general. The participatory process has led to the building of a comprehensive partnership. The choice of sound, simple, and cheap agri-environmental indicators as the first focus topic could help pinpoint the systemic approach in national organic farming research. The availability of data and measurements for such indicators will allow to objectively evaluate the impact of organic farming on climate change, environmental quality, biodiversity conservation and other hot subjects.

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References

- Italian Ministry of Agriculture and Food Policies (2010) Italian Organic Farming: Quality for all.
- Morgan K., Murdoch J., (2000) Organic vs. conventional agriculture: knowledge, power and innovation in the food chain. *Geoforum* 31, 159-173.
- Ortolani L, Micheloni C. (2010) Indagine sui centri sperimentali e di trasferimento dell'innovazione in agricoltura biologica, FIRAB 2010.
- Seufert, A., Bach, A. and Von Krogh, G. (1999). Towards Knowledge Networking. *Journal of Knowledge Management*, Vol. 3, No. 3, pp. 183-185.