

Strengthening research in organic farming. The experience of the Italian Foundation for Research in Organic and Biodynamic Agriculture

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Abstract

Italian organic agriculture represents one of the most dynamic area in the primary sector despite a lack of significant support and direction provided by research and institutional bodies. To ensure a high-quality and effective research on farming systems, whose results are really functional and shared with all stakeholders involved, organic and biodynamic farmer associations, environmental and labor organizations convened to promote a focused research foundation. The establishment of a non-profit foundation that gathers and conveys organic farmers' demand for research and their factual experiences represents an original set-up in the scientific environment aiming to reconnect economic operators and scientists. This novelty represents a framework enabling the materialization of a virtuous pathway for participatory research, encouraging a constructive protagonism of primary producers and a full recognition of their research capacity by the scientific establishment.

Introduction

Organic farming boomed in Italy during the '80s and '90s despite widespread inattention among most agricultural institutions: this neglected interest was also common to scientific and research environments. Learning by doing and on-farm experimentation were then frequent practices among organic and biodynamic farmers who developed techniques and *savoir-faire* that were later taken into consideration and sometime adopted by official agronomic science.

The scaling up of organic farming raised popularity and curiosity in this sector. At scientific level, it gradually became a field for study. With emerging environmental – and more recently – climatic concerns, organic agriculture received increasing attention and its contribution to environment conservation and restoration was then scientifically analysed.

Despite the growing attention, organic and, even more, biodynamic agriculture received little contribution from official science and a shift was needed: fostering research to respond to farmers' innovation needs and to solve specific agronomic or economic problems became then a must. This implied the promotion of targeted research meant to serve farmers rather than testing and make use of their knowhow.

This was nevertheless not enough, since organic farmers (and most often the whole farming community) are not just hungry for research, but most of the(ir) time researchers themselves.

Strengthening the relationship between farmers and chain operators with formal scientists thus provides a unique opportunity and challenge integrating peculiar field

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practices with structural data collection and statistical analysis; incorporating informal knowledge to formal science. Research with farmers, though not a standard practice or common sense in scientific environments, recently became a viable and adopted option in these circles too.

Participatory research emerged since the early 1980s when technological solutions from agricultural research at universities and experiment-station-based research were recognised as inappropriate for the priorities and circumstances of farmers (Lawrence et al.2007; Ceccarelli et al. 2009). A similar condition has been experienced by organic farmers in Italy. Participatory research resulted more efficient and cost effective than the conventional research methodology (Pretty, 1995).

Based on these considerations, the Italian Foundation for Research in Organic and Biodynamic Agriculture (FIRAB, the Italian acronym) was founded to progress in the knowledge area on, for, from and with organic farmers. The Foundation's rationale was in fact aimed to: the promotion of information on the multiple roles organic farming plays in sustainable development; the dissemination of research results thus increasing organic farmers' ability to cope with technical and economic problems; the sharing of on-farm experiences and best practices; the creation of an enabling environment for research partnership.

FIRAB has thus the ambition to translate into concrete operative options the cooperative research approach, facilitating the exchange of information and expertise among organic farmers and scientists.

Materials and methods

The Italian Foundation for Research on Organic and Biodynamic Agriculture was initiated in 2007 following a proposition launched by AIAB (Italian Association for Organic Farming), soon endorsed by three other social organizations, who later became co-founders. Further to AIAB and the Italian Biodynamic Association, whose stated mission is to support and promote organic and biodynamic farming, FIRAB is also the expression of the main national environmental organization (Legambiente) and of one of the three most representative agroindustry workers union (UILA).

FIRAB thus gathers instances and reflections from various areas not exclusively restricted to organic and biodynamic operators, since it includes environmental and labor concerns as reflected in its founding member's constituencies.

FIRAB is thus more than an instrumental body meant to strengthen and convey research in organic farming. Its vision is to investigate on a sustainable development model for agriculture, taking as a basis organic and biodynamic agriculture for its positive impact on production activities, environment conservation, quality of food and therefore of people wellbeing.

To achieve the envisaged goals the four founding organizations came to a decision that the new body had to gain a status enabling a peer to peer dialogue with official research institutes and then deliberated to pursue its institutional acknowledgment as not-for-profit foundation. The lengthy process for the official recognition as foundation was then launched.

The start-up phase included a fund raising activity necessary for putting together the financial capital that has to be immobilized, as requested to foundations by the pertinent Italian legislation. The fund raising exercise was considered by the founding members as a favorable opportunity to popularize FIRAB's mission and objectives vis-à-vis stakeholders and the larger public. A number of local governments, organizations, companies and individuals subscribed for the Foundation enabling its factual recognition. It has to be noted that as the official recognition process was on going, the informal accreditation was also accomplished.

FIRAB's governance (Fondazione Italiana per la Ricerca in Agricoltura Biologica e Biodinamica, 2007) echoes its mixed constituencies and reflects the needs to represent different social groups and thematic interests: further to its Board and scientific committee, a 'honor' committee is foreseen by the statute in order to collect indications and advices to better respond to the diverse social requests. Members of the various organs of the Foundation act on their personal capacity, but reflect broader social instances, thus contributing to the Foundation wide-ranging analysis and outreach. Moreover, while bringing together peculiar values, interests and needs, the Foundation's organs converge towards the common cause of sustainable and people centered agriculture.

As explicated in its statute, FIRAB aims to promote a fruitful dialogue between researchers and producers. This dialogue is meant to carry out applied research to address technical choices and investments in the organic and biodynamic sector, but also to promote innovative models of production, processing and storage and innovative solutions for trading and distribution, in the overall framework of a sustainable rural development, based on stakeholder involvement.

Results

FIRAB is an unique Italian not-for-profit entity with a specific focus on research in organic and biodynamic farming. It fills a gap not just within the civil society arena in terms of organizational diversity, but -most importantly- in shortening the distance between academics or formal researchers and organic operators.

In the few years of activity, FIRAB solicited and promoted research in a number of areas at local, national and European scale, but it has also attracted interest from research institutions triggering collaboration and developing joint projects and programmes.

At present, FIRAB is responsible for a four year project, funded by the Lazio Region's research and experimentation arm (ARSIAL) to evaluate conversion patterns to organic and biodynamic farming. FIRAB is also responsible for the establishment of a network of public experimental site involved in organic farming, together with ARSIA Toscana (same nature as ARSIAL for the Tuscany administration) and it is involved in the project SOS BIO funded by the Italian Ministry of Agriculture and coordinated by SSSUP (Scuola Superiore Sant'Anna di Pisa). This project is about the evaluation and implementation of agroenvironmental indicator sets to be used on-farm. FIRAB has also been asked by ISMEA (Institute of services for the agricultural and food market) to realize a survey on export of organic products in the EU market. Moreover, FIRAB promotes the annual MSc Thesis award "Augusto Finzi" for the best dissertations in organic farming and agriculture.

Peculiar characteristics of FIRAB projects are their wide partnership and their interdisciplinary approach. Its projects deserve a specific attention to the dissemination phase, to participatory aspects, to on-farm research, to result transferability. In order to systematize and integrate in a more coherent framework its projects and institutional activities, FIRAB is also a proponent of and participant to policy dialogue platforms.

In FIRAB's intentions, this approach is a step forward in the direction of the cooperative or participatory research materialization. In this respect, social organizations, local communities and individual farmers, as knowledge owners and managers, fully integrate themselves as researchers along with formal scientists.

Participatory approach to research is currently promoted at international level by a range of academics, policy-makers, and research funding agencies (Bruges and Smith, 2008). However today in Europe few experiences of real participatory research exists and FIRAB works for the multiplication of such possibilities. In this respect, the

Foundation plays an increasing role in getting across experiments and innovations of organic farmers, disseminating experiences and facilitating contacts between the different actors of the productive and scientific areas.

Since experiences of participatory research already exists in Italy, despite quite independent and spontaneous, FIRAB plays a pivotal role in facilitating networking among formal and informal innovators that need to be more coordinated and interconnected. In this sense, FIRAB promotes field visits and knowledge exchanges, starting from the existing experiences.

FIRAB works to promote actual research in organic farming to be conducted in conditions that are representative of those encountered by producers. The high variability of local conditions influencing weed management, soil fertility, crop health, crop biology, crop rotation, etc., have a strong influence on organic production and can benefit from a peer to peer exchange of experiences and practices.

The Foundation is thus increasingly seen by political and scientific institutions as an important bridge to liaise and reconnect formal researchers and on-farm innovators. This is also an important opportunity to reconcile science and society in more general terms.

The signing in December 2010 of a memorandum of understanding among FIRAB, the Italian Association of Organic Agriculture and the Faculty of Agriculture of the Tuscia University (Università degli Studi della Tuscia et al., 2010) is an example of the relevance gained by the cooperative research approach and its intermediaries.

Conclusion

By giving birth to FIRAB, all of the founding organizations recognized the strategic need to empower organic and biodynamic food chains, but also sustainable agriculture in more general terms, through an increased demand oriented capacity to generate innovation in the sector. The founding members shared the idea that organic farming is not just a method or a technique, but it encompasses a more thorough value system and contributes to build a sustainable development model.

A participatory approach to agricultural research represents an important learning opportunity for all the stakeholders involved. That is why FIRAB focuses an important share of its activities to disseminate and value among all stakeholders the cooperative research approach as part of a cultural agenda of the organization. This approach proved to be effective not just in terms of concrete results, but also in reshaping the scientific mentality, progressively more prepared to accept farmers, with their opinions, suggestions and criticisms, as partners with equal rights and respected knowhow.

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