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Short communication

European Knowledge Networks in Organic Fruit Production

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Abstract

Organic fruit farming is knowledge intensive and technically demanding. Therefore, to support organic farmers during the conversion phase or in improving yields of organic fruit systems it is necessary to foster knowledge sharing to organic farmers through accessible information sources. There is limited information regarding the resources and the methods used by organic fruit growers to learn about production practices. This information, however, is crucial to improve the efficacy of knowledge transfer. To this aim, a survey was carried out in twenty-one countries from Europe and Mediterranean basin in the framework of an EU-funded project (BIOFRUITNET – https://biofruitnet.eu/) to identify the knowledge networks for pome, stone and citrus fruits and analysing the network activities and kinds of information exchange related to technical knowledge. The outcomes of the analysis allowed to conclude that among organic farmers, networking knowledge is seen as a process that favour interactive learning, encouraging the involvement of farmers in innovation development.

Keywords: knowledge transfer – farmers networks – innovation

Introduction

Technical scientific knowledge and applied knowledge resulted to be crucial to ensure successful management of organic cropping systems (Eshuis, Stuiver, 2005). However, information about the resources and methods used by organic fruit growers to learn about innovation in production practices is still lacking, even though it is crucial to improve knowledge transfer among organic fruit growers.

Material and Methods

A survey was carried out in twenty-one countries from Europe (17 EU member states, Switzerland and Norway) and the Mediterranean basin (Turkey and Morocco) in 2019-2020, to obtain information about the distribution and organization of knowledge networks dealing with organic pome, stone and citrus fruits production. A network was defined as “a group composed by one or more kinds of stakeholders that are exchanging information on a regular basis about issues related to organic fruit production, either formally or informally”. Each selected network provided information following a questionnaire during semi-structured interviews carried out in local language. Questions focused on the organisation of the network, its activities and information related to the methods of informal knowledge exploitation. The collected data were analysed, categorizing the answers on the basis of the different classes identified in the questionnaire.

Results and Discussion

A total of 56 networks representing about 42.500 professionals were identified that fulfilled the specific definition. The majority of them (50 out of 56) were formed by institutions or organisations belonging to one single group of stakeholders. However, a high proportion of networks made of several stakeholders was found in countries with a tradition and high

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share of organic fruit production (e.g. Germany, France, and Italy), confirming recent research findings underlining that multi-actor knowledge networks are more successful in developing and implementing sustainable practices (Moschitz et al. 2015).
The majority of the networks were active at national (42.9%) or regional level (30.4%), confirming the assumptions that they arise more frequently through communities of practice, leading to innovations suitable for specific socio-environmental conditions (Goulet 2013), but also having in the language a strong barrier for exchanges with other countries.
The predominant fields of information tackled by the networks were plant protection, orchard and soil management and fertilization. Certification and "other subjects" (e.g. market issues and sales channels, post-harvest, orchard biodiversity) were considered by less than half networks. The exchange of information within the network occurred through personal contact during farm visits, public field days, conference participation, network conference meetings, internal group meetings and collective information visits. Interestingly, the share of public (external) funding and internal sources was in the same order of magnitude, with more than 50% of the network exploiting members' fees as a source of funds.

Conclusions

The results of the research showed that knowledge networking among organic fruit producers fosters interactive learning, encouraging the active involvement of farmers in experimentation and innovation toward more sustainable practices. The network approach could thus be seen as a method of knowledge sharing that is based on the very foundation of organic farming philosophy.

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