Functional agrobiodiversity in apple pest management in Latvia: what do we know?

Baiba Ralle[1], Laura Ozoliņa-Pole[1], Annette Herz[2], Servane Penvern[3], François Warlop[4], Mario Porcel[5], Marc Tchamitchian[3], Lukas Pfiffner[6], Laurent Jamar[7], Dorota Kruczyńska[8], Maren Korsgaard[9], Marcus Kelderer[10], Lene Sigsgaard[11]

[1] Latvian Plant Protection Research Centre; Struktoru iela 14a, LV-1039, Riga, Latvia; baiba.ralle@laapc.lv
[2] Julius Kühn-Institut, Federal Research Centre for Cultivated Plants; Heinrichstraße 243, 64287 Darmstadt, Germany
[3] UR Ecodeveloppement, INRA; Avignon Cédex 9, France
[4] Groupe de Recherche ne Agriculture Biologique; Maison de la Bio, 255 Chemin de la Castelette, BP 11283, F 84 911 – Avignon Cedex 9, France
[5] Swedish University of Agriculture Sciences, Dept. of Plant Protection Biology; Box 102 SE-230 53 Alnarp, Sweden
[6] Research Institute of Organic Agriculture; Ackerstrasse 113, Postfach 219, CH-5070 Frick, Switzerland
[7] Walloon Agricultural Research Centre; Bâtiment Emile Marchal, Rue de Liroux, 4, 5030 Gembloux, Belgium
[8] Research Institute of Horticulture; 96-100 Skierniewice ul. Pomologiczna 18, Poland
[9] Gefion-Ecoadvice; Fulbyvej 15 4180 Sorø., Denmark
[10] Laimburg Research Centre for Agriculture and Forestry; Pfatten, Laimburg 6, 39040 Auer, Italy
[11] University of Copenhagen, Faculty of Life Sciences, Department of Plant and Environmental Sciences; Thorvaldsensvej 40, DK-1871 Frederiksberg C, Denmark

Functional agrobiodiversity (FAB) and its management techniques becomes more and more popular in agriculture to obtain sustainable ecosystem services as for example pest management. Perennial crops are very suitable for implementation of sustainable FAB techniques. One aim of the CORE Organic Plus project EcoOrchard is to collect the existing information about FAB and its management techniques to improve and exchange knowledge and practical experience between scientists, advisors and owners of apple orchards. To fulfill this aim many advisors and farmers have been interviewed in 9 European countries including Latvia. As the term FAB is new in Latvia, information regarding its techniques and their use in Latvia were also searched in other sources like existing rules and regulations and extension materials for farmers. We have found that some FAB techniques are already used for pest management in apple orchards in Latvia and that most of them are natural elements in the orchards or implemented because of other aims. Farmers in Latvia do not acknowledge the fact that some techniques they use are FAB related, and they do not evaluate the efficacy of these techniques for FAB. The EcoOrchard project will test methods for FAB assessment with growers, also in Latvia, and provide growers and advisory service in Latvia access to more information and information exchange about FAB.
The authors acknowledge the financial support for the project EcoOrchard provided by transnational funding bodies being partners of the FP7 ERA net project, CORE Organic Plus, and the cofund from the European Commission.

Key words: project EcoOrchard, functional agrobiodiversity, pest management, apple orchards