

Walloon farmers test pesticide and tillage reduction strategies

Soil living labs working together to obtain healthy soils by 2030

The Walloon Agricultural Research Centre (CRA-W) in Belgium brought together farmers, researchers, advisors and others to set up a living lab testing the simultaneous application of pesticide and tillage reduction strategies. Didier Stilmant, head of the 'Sustainability, systems and perspectives' department at CRA-W explains: "After a successful event led by Greenotec, an agricultural association on agroecology and conservation agriculture, and CRA-W, I we created the ABC group (L'Agriculture Biologique de Conservation) as a living lab in 2016. Thereafter this group was supported by the TRANSAE – Interreg and DiverIMPACTS – Horizon 2020 projects. The ABC group proposes systemic innovations on pesticide reduction and reduced tillage, tests them, improves them and promotes them further in the farmer community."



The living lab ABC group consists of 12 farmers spread over the whole of Wallonia, advisors from Greenotech, researchers and technicians from CRA-W. Didier stresses the importance of the multi-actor approach in their group: "We also have a sociologist on board who helps the group to facilitate exchanges and communication between members, highlight the unsaid things and the points of attention." The practices tested are strip-till, direct sowing under living mulch, relay cropping of service crops, double density service crops, cultivars mixture...

In this group, there are two types of farmers: organic who would like to reduce tillage intensity and conservation agriculture farmers who would like to decrease their use of pesticides, and more specifically their use of herbicides or fungicides. Vincent Renard is one of the farmers who joined the ABC group. He initially worked with conservation agriculture but returned to ploughing 10 years ago after switching to organic farming. Vincent: "I decided to join the group as I wanted to gain new practical knowledge on how to reduce the intensity of tillage in field crops to improve soil fertility. Controlling weeds is my biggest challenge."

Each farmer has a contact person from CRA-W and Greenotec. Together they define a specific action plan, that is shared and discussed with the whole group. Each farmer tests the innovative practices on one hectare, and in parallel, a control plot makes it possible to compare the results. The monitoring of the plots takes place over several years, with farmers committing to the tests for three years. Vincent: "For me, it was important to be able to test specific equipment (no-till drill, strip-till) that is not available in the region, to see what it does on my farm."

Through the group, he was able to meet other farmers and researchers. Vincent: "Without the group, I would never have been able to meet them because they live far away. We are all looking in the same direction, even if we have different points of view. It is by exchanging our personal experiences



on the concrete problems we encounter on our farms that we will move forward more quickly. No one has the solution alone, together we learn faster.”

Every year, the group organises two events to present latest results and analyse the efficiency of the practices tested. One of these events takes place in the field. Vincent concludes: “The group is reassuring for me. If I want an opinion, information or help, I can always contact one of the group members.”

Project information

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