

ZOOM ON INNOV.AR

POOLING AND SHARING

to facilitate innovation transfer

A research project conducted on both sides of the Franco-German border is bringing together numerous partners aiming to develop agro-ecological solutions in the fields of plant nutrition and pest control.



Under the Innov.AR project, 90 French and German partners are working together to reduce the use of inputs (here, a Votar survey is being conducted during a work session).

The Innov.AR project, which stands for innovations in agro-ecology in the Upper Rhine area, brings together agricultural businesses and applied research organisations based in this production area (see insert). This cross-border network was set up as part of an Interreg⁽¹⁾ project supported by the European Union.

Research work spanning from 2017 to 2020 is focusing on the fertilisation and plant protection of the main crops grown in the Rhine basin, with a view to reducing chemical inputs. Innov.AR focuses both on maize fertilisation (assessment of the CULTAN nitrogen injection method) and on crop protection, using biocontrol solutions against diseases in wheat, wireworms in maize and potatoes, and corn rootworm beetles in maize. Each year, the cross-border partnership devotes a dozen

trials to wheat septoria, and the same number to ear fusarium.

Customised research sites...

In addition to joint trials, some of the Innov.AR project's sites are trialling particular arrangements. The Colmar site uses a fogging device to overcome dry springs, and to study the potential of biocontrol products against ear fusarium each year. The Lufa Technical Institute and the local chambre d'Agriculture have installed porous candle tensiometers in Speyer (Rhineland Palatinate) and Schirrhein (Alsace) respectively, to measure the CULTAN method's impact on the quality of percolating water. Every year, Arvalis and the air quality watchdog Atmo Grand-Est monitor two sites for ammonia volatilisation from agricultural fertilisers

that is likely to mix with road traffic emissions. In Bade-Wurtemberg, the consultancy firm Anna and the local chambre d'Agriculture (the Landratsamt) are injecting entomopathogenic nematodes to control corn rootworm beetles.

... and large-scale work

In addition to the trials conducted by the various partners, this project is also trialling the CULTAN nitrogen injection prototype on volunteer farms. With trials covering over 600 hectares, the process's reliability and constraints must be ascertained, in a large number of situations (sloping parcels, prone to capping, etc.). In addition, students are carrying out surveys with farmers on both sides of the Rhine to

find out what is stopping or motivating them when it comes to adopting these new working methods.

(1) Innov.AR is supported by ERDF (European funds) as part of the INTERREG V programme (2014-2020). The European Union contributes 942K euros towards the total budget of 1.9 million euros, the Grand-Est region contributes 40K euros and the Ministry of Baden-Wuerttemberg 10K. The ten technical partners provide the remaining 894K euros. Arvalis coordinates the work and the communication.

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A CROSS-BORDER POOL

Innov.AR brings together ten technical partners actively involved in the research work, and 18 associate partners, based in the Upper Rhine area (Alsace, Baden-Wuerttemberg, Rhineland Palatinate, and the outlying areas of the Basel canton). The studies follow common protocols exploring all the different regional contexts. This project is led by a cross-border joint group, whose 90 members, half from the technical partners and half from agricultural businesses, meet every six months and determine the direction that the work will take.