

# EVENT REPORT

## AGROECOLOGICAL FARM VISIT

HOW CAN AGROECOLOGY HELP  
REDUCE PESTICIDES USE AND  
IMPROVE FARM VIABILITY AND  
RESILIENCE?



21  
MARCH  
2023

## Introduction

On 21 March 2023, Agroecology Europe organised an agroecological farm visit for MEPs and their team members of the AGRI and ENVI Committees of different political groups including the Renew Group, the EPP Group and the Greens/EFA.

In the fields of the Warelles Farm in Petit-Enghien, thirty participants had the opportunity to exchange with the farmer Etienne Allard, who runs a family farm of 120 ha of arable crops with 20 ha of grassland and 150 dairy cows. Participants discovered **how to drastically reduce the use of pesticides, restore soil health while improving the economic viability of his farm.**

Pesticide reduction has been on the EU agenda with the SUD directive in 2009, but has failed to achieve its reduction target. Thus, the SUR, currently under discussion, represents a major opportunity to move towards greater environmental, but also social and economic sustainability for European agricultural and food systems.

The redesign of farming systems according to agroecology principles is the way forward to to reduce the risks and uses of pesticides by 2030 as stated in the Farm to Fork Strategy. This is what Etienne Allard has witnessed and put in place on the farm.

Sarah Wiener MEP (Greens/EFA), rapporteur for the ENVI committee on SUR and co-host of the visit, recalled that we need sustainable solutions.

Farmer and cattle breeder for 25 years, Etienne Allard, has been committed for more than 10 years to **reducing the use of synthetic inputs, restoring soil health and developing greater autonomy and resilience on his family farm La Ferme de Warelles.**



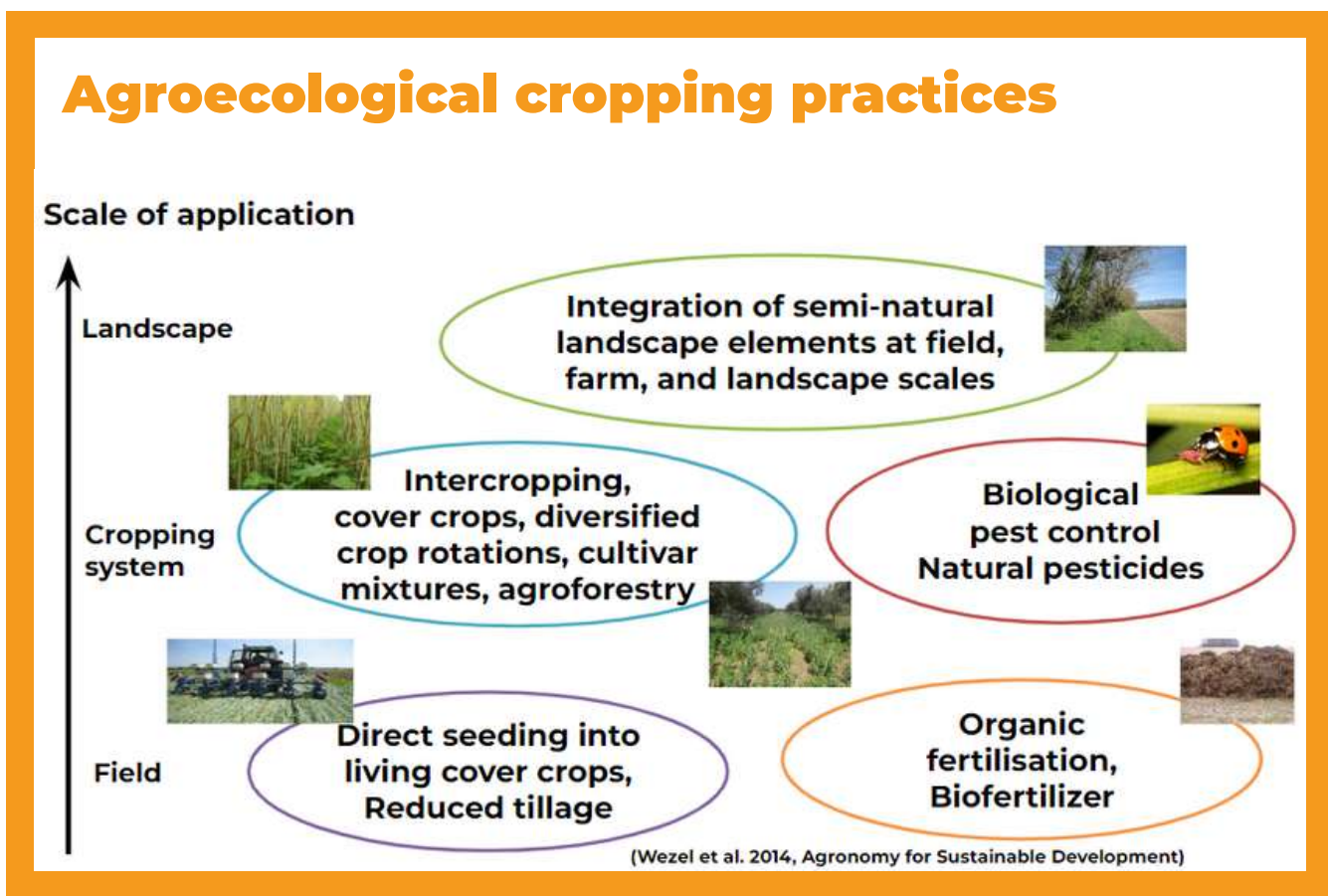


# Agroecological cropping practices in cereals and oilseed rape



Agroecological practices contribute to improving the sustainability of agroecosystems while being based on various ecological processes and ecosystem services such as nutrient cycling, biological nitrogen fixation, natural regulation of pests, soil and water conservation, biodiversity conservation, and carbon sequestration (Wezel et al. 2014).

Agroecological Crop Protection reduces pest impacts through the reorganization of cropping practices and the improvement of agroecosystem sustainability by harnessing its ecological functions. This requires the optimization of interactions between plant, animal and microbial communities. (Deguine et al. 2023).



[1] Wezel, A. et al. (2014.) Agroecological practices for sustainable agriculture. A review. *Agronomy for Sustainable Development*. [link here](#)

[2] Deguine, J. et al. (2023). Agroecological crop protection for sustainable agriculture. *Advances in Agronomy*, Academic Press. [link here](#)

On his 120 ha of arable land with 14 different crops including wheat, oilseed rape, potatoes, sugar beet, mustard, and legumes such as faba bean, Etienne explained that in his journey to restore soil life and reduce the use of synthetic inputs, it was necessary to implement longer rotations.



**Etienne Allard**

Farmer in Ferme de Warelles

"I am not afraid of the ban on neonicotinoids because I have not used them for 6 years thanks to the implementation of intercropping of faba bean in sugar beet. Faba bean attracts aphids and consequently their natural enemies. When aphids are ready to shift to sugar beet and could potentially transmit beet yellows virus their natural enemies control them."

In the near future, Etienne explained that he started to introduce intercropping because of the benefits he witnessed in terms of drastic reduction of synthetic inputs (fertilizer and pesticide). He crops already together wheat and faba bean, oilseed rape-faba bean-Egyptian clover, and sugar beet and faba bean.

## **Advantages to associate oilseed rape and faba bean**

- 1. Reduce weed competition**
- 2. Improve nitrogen availability**
- 3. Disrupt the olfactory recognition of autumn insect pests such as flea beetles and weevils**
- 4. Limit the possible damage caused by the larvae during the winter**







## **KEY AGROECOLOGICAL PRACTICES REDUCING THE DEPENDENCY ON SYNTHETIC INPUTS**

- Restore soil life through reduced or no-tillage;
- Continuous soil cover;
- Direct seeding of main crops into cover crops;
- The development of a dense ecological network;
- The choice of climate-resilient crop species, cultivars and mixtures;
- Intercropping (including agroforestry);
- Long and diversified crop rotations;
- Crop/livestock integration that allows the inclusion of legume-based temporary grasslands in annual crop rotations;
- Rotational grazing;
- The use of rustic livestock breeds in grass-based systems;



## Legume-based temporary grassland

Nitrogen fixing clover is mixed with grasses in order to reduce synthetic nitrogen use and improve the flora biodiversity. Grassland also act as an important soil carbon sink and enable Etienne to be autonomous in forage and feed on his farm. These are all elements that improve the sustainability of this mixed farming system.





## Improving the economic valorisation of farm products with territorial value chains

The agroecological approach cannot be limited to farming practices in the fields. The reorganisation of value chains, embedded in the territories and ensuring a fairer distribution of added value for farmers can improve the economic resilience and viability of family farms.

On the Ferme de Warelles, part of bread cereals is processed on-farm into flour and sold to a baker or to other clients in order to retain greater value on farm products.



## Conclusion

There is abundant scientific literature evidencing that agroecology can ensure European and global food security [3]. Diversification is a key principle to developing greater resilience of agro-ecosystems to disturbances, reducing pest outbreaks and conserving biodiversity [4].

As we have observed on the Ferme de Warelles, **drastic pesticide use reduction is possible and economically viable**. No yield losses are reported in this case. These practices are attractive for the new generation of farmers who can envisage a transition to **more autonomous and climate resilient farming systems**. In this context, the farming profession is becoming **more knowledge-intensive** - based on observation and fine understanding of the ecological processes at work in the environment.

Building consistent legislative frameworks pointing towards the drastic use of synthetic inputs and supporting the development of more autonomous and resilient agricultural and food systems is the most effective, if not the only way **to ensure food security and the continuous provision of ecosystem services in the short, medium and long term in Europe and worldwide**.



[3] Kerr, Rachel & Madsen, Sidney & Stüber, Moritz & Liebert, Jeffrey & Enloe, Stephanie & Borghino, Noélie & Parros, Phoebe & Mutyambai, Daniel & Prudhon, Marie & Wezel, A.. (2021). Can agroecology improve food security and nutrition? A review. *Global Food Security*

[4] Wezel, A. & Casagrande, Marion & Celette, Florian & Jean-François, Vian & Ferrer, Aurelie & Peigné, Joséphine. (2014). Agroecological practices for sustainable agriculture. A review. *Agronomy for Sustainable Development*. 34. 1-20. 10.1007/s13593-013-0180-7.





**Thank you for your participation**

**Lets build more diverse, healthy and fair  
European farming and food systems!**

