

“IN AGRICULTURE, EVERY YEAR IS DIFFERENT”



Dominik Bellaire

On his farm in south-west Germany, Dominik Bellaire is experimenting with techniques from both organic and conventional farming in order to reduce his use of pesticides while remaining profitable.

MY FAMILY FARM is located in Neupotz in Rhineland-Palatinate, not far from the French border. I run the small family business together with my wife, my parents and my three children. Our 200 hectares are divided into about 100 plots. The soil quality varies greatly, but all of the plots can be easily irrigated. We grow all kinds of crops: wheat, carrots, potatoes, tobacco, alfalfa, sunflowers, rapeseed... a total of thirteen different crops! Our farm also has dairy cows that roam freely in the barn and go to the milking machine on their own when they need to be milked. We have also installed a milk vending machine so that residents of the neighbouring villages can buy fresh milk. This also gives them the opportunity to see our cows and exchange a few words with us.

We see this as an enormous pedagogical opportunity: people no longer know what it means to produce food. Until a few decades ago, most families had at least one person who worked on farms. So people had a certain understanding of growing seasons, technical constraints, costs, when to slaughter a pig, or when apples and rhubarb were in season. That is no longer the case today, as you can get anything you want at the supermarket. Consumers no longer have any idea what is happening in our fields. And sometimes they get scared or worried when they see us spraying our crops with our tractors – because they may not know what it is, what it is for and how it works. Farming is not easy; it is much more complicated and nuanced than people think.

We are also continuing to educate ourselves, constantly learning and testing new methods to reduce our use of pesticides. I joined a working group on integrated pest management and had to set up a pesticide-free area on my farm to observe what happens there. I saw weeds and fungi growing, but I also noticed how many things regulated themselves. I learned an awful lot in the process.

To combat aphids and tobacco beetles, which ravage tobacco plants, we have surrounded the plots with flower strips. These attract beneficial insects such as ladybirds, which are very effective at ridding us of these pests. In addition, a wide variety of crops means that the soil and biodiversity are much richer, which

makes my crops all the more resilient. In general, we try to think in terms of ‘symbiosis’: how can we use what nature provides us with to protect our crops and at the same time preserve the soil? I was inspired by what is practised in organic farming. For example, I have adopted the technique of false sowing: you clean the field, but don't sow immediately. Instead, you wait until the first wave of weeds grows, remove them and then sow. For me, there is no such thing as organic on one side and conventional agriculture on the other; it's not all black and white. Both can learn a lot from each other!

Technological innovations also play an important role. We use many predictive models that take into account the weather, humidity, the likelihood of a particular fungus or pest infestation developing, etc., and we use this information to guide our decisions. It makes it easier for us to decide whether or not to spray, and if so, which product will be most effective and what dosage is most appropriate. They also enable us to predict the most favourable time to apply the products in order to achieve the best effect with the lowest dose. Ideal conditions are high humidity and no wind – usually in the middle of the night! And, of course, it is important to coordinate with colleagues and agree on techniques and timings. This is essential for applying methods such as crop rotation, flower strips, forecasts, etc. on a larger scale.

Thanks to all these things, we have been able to reduce our pesticide use by about 50%. But not every year! That's what you have to understand: in some years, e.g., very dry years when we don't have any problems with fungi, we can reduce by 80 to 90%. In wetter years, we are forced to resort to certain fungicides to preserve the harvest.

For this reason, it is somewhat unrealistic to set absolute reduction targets. Every year is different, and the climate crisis will only exacerbate these fluctuations.

In the future, I would like to go one step further and work more closely with our clients. This is because diversified farming has a cost, and without genuine financial support, we cannot effectively change our practices. Among other things, I plan to work directly with local bakers to build loyalty: I want to show them the wheat, the mill and all the actions we have taken to reduce pesticides. The same applies to schools: I want to explain to pupils in a clear and vivid way all the factors that play a role in the production of high-quality food!

Conversation with LOU HÉLIOT

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