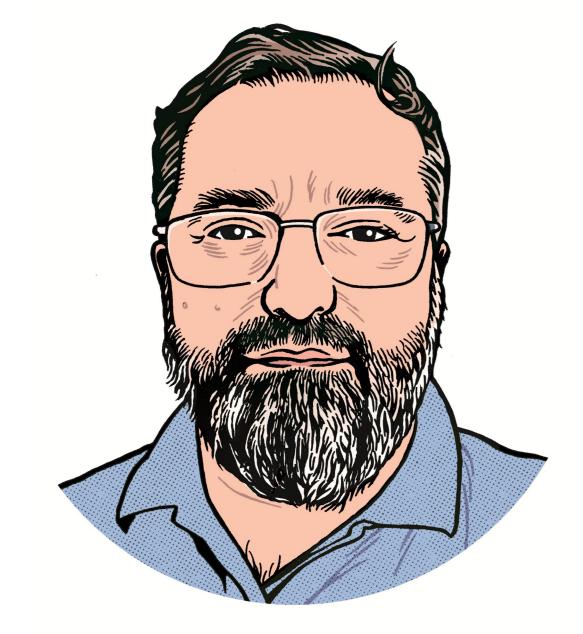
"YOU NEED TO CHECK YOUR CROPS EVERY DAY!"



Cosmin Cucu, farmer born into a family of farmers, grows corn in eastern Romania, near the Black Sea. For several years, he has been looking for alternatives to protect his crops.

IT HAS BEEN 21 YEARS since I took over my father's farm. He founded it in 1989, when Romania emerged from communist regime and redistributed plots of land to locals for private use. Our plot is located in south-eastern Romania, in the Brăila region, a predominantly agricultural area close to the borders with Moldova and Ukraine. Our farm is not very large, at least by Romanian standards—about 180 hectares—and it seems even smaller because it is only a few kilometres from the largest farm in Europe, which covers an area of over 50,000 hectares! But it is enough for me to grow all kinds of things: wheat, soybeans, rapeseed, barley, alfalfa, and especially corn, which constitutes the largest part of my production and sales.

When I inherited my father's farm, I also took over his methods. After all, I learned alongside him, working on the farm with him in my spare time while studying engineering. In fact, he continues to advise me today, even though he has retired. But I started to change the way I did things after completing a second master's degree in agricultural engineering and especially after Romania joined the EU in 2007. This brought about a huge paradigm shift for Romanian farmers, mostly for the better! But it also caused us some difficulties, due to ecological, economic, and social constraints. So we had to adapt.

Pesticides are a central aspect of this evolution. The products themselves have changed. We have a much wider range of options than before and can now select the product which will target exactly the pest or weed causing us problems, at the lowest dose and with much more appropriate protective equipment. Some other developments have occurred by coincidence. A few years ago, during my daily field inspection of my rapeseed crop, I discovered the outbreak of an aphid infestation. Should I spray the field with insecticide? Since the aphids were currently only on the periphery, I gave myself a day or two to decide. When I returned the next day, I found a few ladybugs. The day after that, more ladybugs and larvae, and my rapeseed plants were looking better! So I decided to let nature run its course. And the infestation was self-regulating, thanks to the ladybugs that came to the rescue. The lesson for me was twofold: "sometimes there is a natural solution" and "you have to monitor your crops every day"!

Another example: a few years ago, I planted grain on a plot of land at the edge of a forest. As a result, my field was regularly visited by hordes of wild boars that destroyed everything. I didn't want to put up an electric fence, which was ineffective, or use useless products, so I did some research online and asked my neighbours. I was advised to plant mustard, whose smell is said to repel wild boars. To be honest, I didn't believe it at all. How could a few meters of green plants repel a wild boar that had my corn in its sights? And yet, it worked. They never set foot on my field again.

But we can't be naive either. Let me give you an example that

affects me personally. Romanian corn producers are facing a formidable pest, Tanymecus dilaticollis, a type of phytophagous beetle that ravages fields. It is a massacre: it can decimate an entire plot in a matter of days. Surprisingly, its location is extremely precise. It is found only in south-eastern Romania—my region—and a little in eastern Ukraine and Moldova, along the Black Sea. I really think I have everything in place to combat these pests, but they are incredibly resistant. Should I plant later? Should I rotate crops? The beetle has adapted and become polyphagous: now it can eat my wheat or sunflowers before returning to corn. Should I coordinate with my neighbours? The Romanian agricultural landscape has been so fragmented as a result of denationalization that it is impossible to organize a structured collective response. Should I plant something else? I would like to, but corn is the only grain that is profitable for us on the European market. At this moment, the only method that works, in my experience, is pesticides. And the most effective is a neonicotinoid, which we use to coat the seed to protect the future plant. The problem is that this substance has been banned by the EU, and our representatives did not have enough influence to support our wellargued request to make an exception for the Brăila region. This is a problem, and we currently have no solutions. In the event of an infestation, I have to spray insecticide directly onto the field, sometimes up to five or six times to see any effect. This means high costs.

Change takes time, and we are not advancing at the same pace on all fronts. But this is the essence of farming: no two years are the same, and with climate change, the effects of which we are already experiencing, all of this will intensify. So we have to constantly adapt, continue to study, train, and reflect. And every day, absolutely every day, we have to monitor our fields!"