

AGROECOLOGICAL PRACTICES

Moving towards agro-ecological practices in Europe

INTRODUCTION

In 2009, the European Commission approved the so-called pesticide 'package', consisting of a regulation for the authorization of pesticides which introduced the hazard-based approach, a directive on the sustainable use of pesticides and a regulation making it mandatory for EU countries to regularly send statistics about pesticide sales and use.

Despite having adopted this new law a decade ago, the quantity of pesticides sold in the EU remains stable, with around 400.000 tons of active substances being sprayed into the environment every year.

Under the Directive on sustainable use (2009/128/EC), each European Union member state has to prepare National Action Plans (NAPs) to ensure uptake of sustainable pesticide use practices. Of the 28 EU countries, only two (France and Denmark) have introduced quantitative use reductions with clear timelines. And while Denmark reached its objective of reducing the pesticide load by 40% in less than a decade, the French - despite having had the objective to reduce dependency by 50% in a decade, starting from 2008 - ended up having actually increased its use. As a consequence, the French are now trying again, this time with specific reduction targets for wine production, while postponing the deadline to 2027.

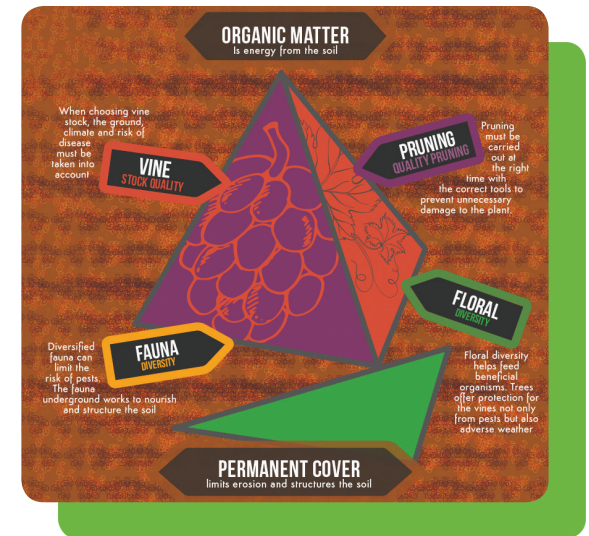
One of the key aspects in the directive on sustainable use is that it foresees that all farmers across the EU start

applying integrated pest management (IPM) on their farms as from 2014. We acknowledge that around the world there are many varying definitions of the concept of integrated pest management. In the EU, the concept – thanks to this directive – is clearly defined and evidently does not refer either to precision farming or to using GMOs. Instead, it calls on farmers to start working with nature again, applying agronomic practices such as crop rotation, keeping the soil covered, using buffer strips to attract beneficial insects and pollinators, and so on.

Unfortunately, the principle of IPM is not integrated into the EU's current Common Agricultural Policy (CAP). The EU is currently revising the CAP, moving from a compliance approach to a performance approach. In concrete terms, the European Commission is proposing to slightly raise the agronomic baseline that each farmer needs to apply (i.e. from crop diversification to crop rotation). But despite the fact that the CAP reform proposal introduces a specific pesticide risk indicator as one of such performance indicators, this nonetheless remains far from the farm policy model that PAN Europe and its members believe is necessary.

On a more positive note, organic farming is booming in the EU.

In 2017, organic farmlands covered 12,6 million hectares, meaning the European organic farmland area has doubled within a decade¹.



A number of local groups and/or individual farmers across Europe are moving towards pesticide-free systems, some of whom have been interviewed by PAN Europe.

The results are presented in the following case studies. Each of these testimonies indicates that often today it is personal events that drive farmers to change methods, while EU policies to-date have been unable to really jump-start the ecological transition necessary to assist farmers technically, financially and morally in choosing to opt for alternatives to pesticides.

¹ https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/market-brief-organic-farming-in-the-eu_mar2019_en.pdf

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Film explaining poster on triangle. David Cary



Bufferstrips in practice. Felix Wäckers



Boomgaarden. Marc Cocquyt

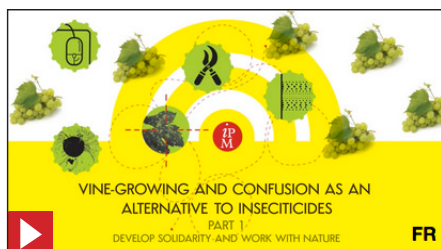


Bufferstrips in practice. Martin De Ruiter

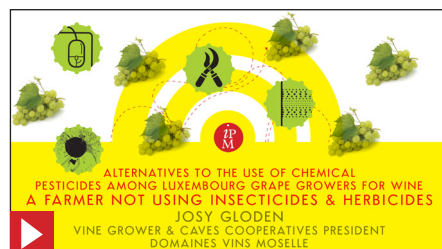


Attilio Pecchenino. Italy

“ In addition to working the ground under vines mechanically rather than with chemicals, we have not used any weed-killer for over 25 years... over the past 10 years we have reduced our pesticide usage by 80%. ”



Vine growing and confusion as an alternative to insecticides.



A farmer not using insecticides & herbicides. Josy Gloden

The European model of **farming is no longer sustainable**, due to:

- The collapse of insects^{1,2} and entire ecosystems (bees, birds, butterflies, etc.) in proximity to agricultural areas;
- The presence of mixtures of pesticide residues in soils and water are the rule rather than the exception^{3,4};
- The rise of chronic diseases such as the ones highly likely caused by endocrine disrupting chemicals/pesticides⁵;

An increasing number of studies show that the farmers overuse pesticides^{6,7}, and that this is happening as farmers use pesticides to increase yield not to optimise profit^{8,9}. This makes absolutely no sense neither for the farmer nor for society at large. **Time for a change!**

“ The farm land borders were first planted as part of a Water Board experiment to see if the three metre wide border of flowers or grass would result in less fertiliser and pesticides being found in the water... in the past 10 years, I haven't had to use insecticide on my potatoes, sugar beets or grain... the word spread... we now have 550km of flower borders. ”

¹ Caspar A. Hallmann, Martin Sorg, Eelke Jongejans, Henk Siepel, Nick Hofland, Heinz Schwan, Werner Stenmans, Andreas Muller, Hubert Sumser, Thomas Horren, Dave Goulson, Hans de Kroon, More than 75 percent decline over 27 years in total flying insect biomass in protected areas, PLOS ONE | <https://doi.org/10.1371/journal.pone.0185809> October 18, 2017

² Francisco Sánchez-Bayo, Kris A.G. Wyckhuys, Worldwide decline of the entomofauna: A review of its drivers, Biological Conservation 232 (2019) 8–27.

³ Silva, Vera, Mol, H, Zomer, Paul, Tienstra, Marc, Ritsema, Coen, Geissen, Violette Pesticide residues in European agricultural soils – A hidden reality unfolded, Science of The Total Environment, 10.1016/j.scitotenv.2018.10.441

⁴ Stehle and Schulz, 2015. Pesticide authorisation in the EU – environment unprotected? Environ Sci Pollut Res 22:19632-47

⁵ www.who.int/ceh/publications/endocrine/en/

⁶ Jacquet F. et al. 2011: (French) pesticide use can be reduced by 30% without consequences for yields and margins.

⁷ Lechenet et al 2017: (French) pesticide use can be reduced

by 42% in 59% of the (946) farms studied without consequences on yield.

⁸ Skevas & Lansink (2014): A Dutch study among arable farms, show that – if comparing with profit maximizing levels – overuse 100% herbicides, 86% fungicides and 67% insecticides.

⁹ Pedersen et al. (2012): 33% of Danish farms does not optimise profit but rather apply pesticides to maximise yields.



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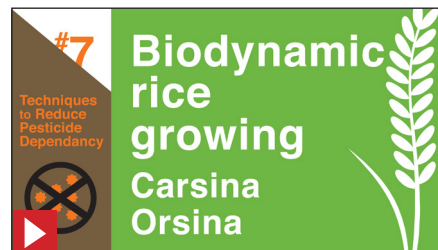
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Biodynamic rice growing. Carsina Orsina



Bertrand Omon. France



Azienda Agricola. Carla Trinca



Biodynamic Prosecco Production. Annalisa Martignago

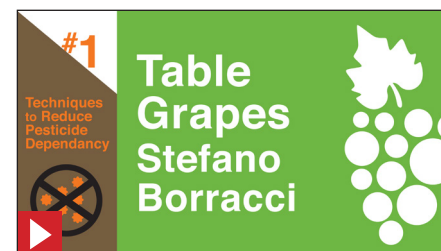


Table grapes. Stefano Borracci



Eric Odienne. Chamblac



“... my main products are cherries and table grapes.. we produce both seeded and seedless varieties... our company set itself a target of transforming to 100% organic production over the course of the next few years ...”



Azienda Agricola. Paolo Trinca



Azienda Agricola. Piccolotto



Jean-Bernard Lozier. Coudres



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Organic Prosecco production. Paolo De Stefani

“My name’s Paolo De Stefani, and I own 8 hectares of vineyards where I produce the variety Glera in the region of Prosecco in Italy. My farm has been organic since 1990.

Our hills are suitable for organic agriculture because the slopes are sunny and exposed. We don’t use any chemical weed killers, of course. Where possible, we use machines to maintain the ground under the vines, which needs to be dug out and patted down again. We also use a machine for mulching, so that grass growing between rows of plants is pulled up and spread across the area under the vines. This grass creates a natural mulch and prevents the underlying grass from germinating and growing. This means we can extend the season for around 20-30 days. Thanks to these agricultural techniques, we can control the invasive grass under the vines and continue to maintain the ground without the use of pesticides or weed killers.

Flavescence is a disease caused by an insect: the scaphoid beetle. This insect is a carrier which spreads the disease from sick plants to healthy plants. This disease is kept in check in the field by removing the sick plants. The presence of the insect is then monitored and natural pyrethrum insecticide applied, or potassium salts with fatty acids. We use other active ingredients as insecticides as well. This year we also experimented with rock flour, which bleaches the vine, making it white and bright, so the insects don’t recognise it and leave it alone. We’ve been testing this method for the past five years to see if it really works before implementing it. Currently, the only solution is to remove the plant and to apply two coatings of natural pyrethrum insecticide. We don’t use pheromones. The scaphoid is the only insect that poses a problem for us.”

PAN EUROPE’S POLICY RECOMMEND- ATIONS

1# Serious implementation of the EU regulation on the authorization of pesticides, applying the hazard approach and stopping derogations;

2# Serious implementation of the “EU Directive on sustainable use of pesticides”, establishing serious quantitative reduction targets and timetables;

3# Setting the ecological transition as a main objective of the EU’s Common Agricultural Policy, and in so doing prioritizing the introduction of integrated pest management and the uptake of agro-ecological practices;

4# Making the transition towards pesticide-free food systems a priority in the EU’s research agenda assisting the change;

5# Setting ‘pesticide-free’ ambitions high in the upcoming Zero Pollution roadmap

