



Insights on current adoption of environmentally friendly farming practices in European farms

The overall objective of EcoStack is to develop and support ecologically, economically and socially sustainable crop production via enhancement of ecosystem services provision and protection of functional biodiversity.

Four specific objectives:

1. Multi-stakeholder approach: creation and sharing of knowledge on sustainable crop production needs and solutions among different actors: farmers, advisors, policy makers, industry, and scientists
2. Evaluate and optimise services provision from pest antagonists and pollinators together with management of landscape elements (e.g. hedgerows, flower strips)
3. Design and test practices that support ecosystem services provisioning within the crop (e.g. varieties mixtures, intercropping, mulching)
4. Develop integrated systems and bio-based plant protection tools for ecological, economic and social sustainability of farming systems



24 PARTNERS FROM 13 COUNTRIES

Introduction

More than 200 farmers were interviewed in 12 countries across Europe during the first year of EcoStack. The aim was to gather information on the current state of application of environmentally friendly (agroecological) farming practices among European farmers and gain insights about their reasons to adopt such practices.

Main results

What environmentally friendly farming practices are adopted by farmers?

Conventional and organic farmers were interviewed from different cropping systems: arable, mixed crop and livestock, horticulture and perennial crops.

Environmentally friendly practices have been classified as “efficiency increase or substitution” (ES) practices and as “redesign” (R) practices. The first category includes practices aimed at reducing input use and replacing chemical inputs with biological ones, while redesign practices require a rethinking of the whole cropping system for the application of the practice.

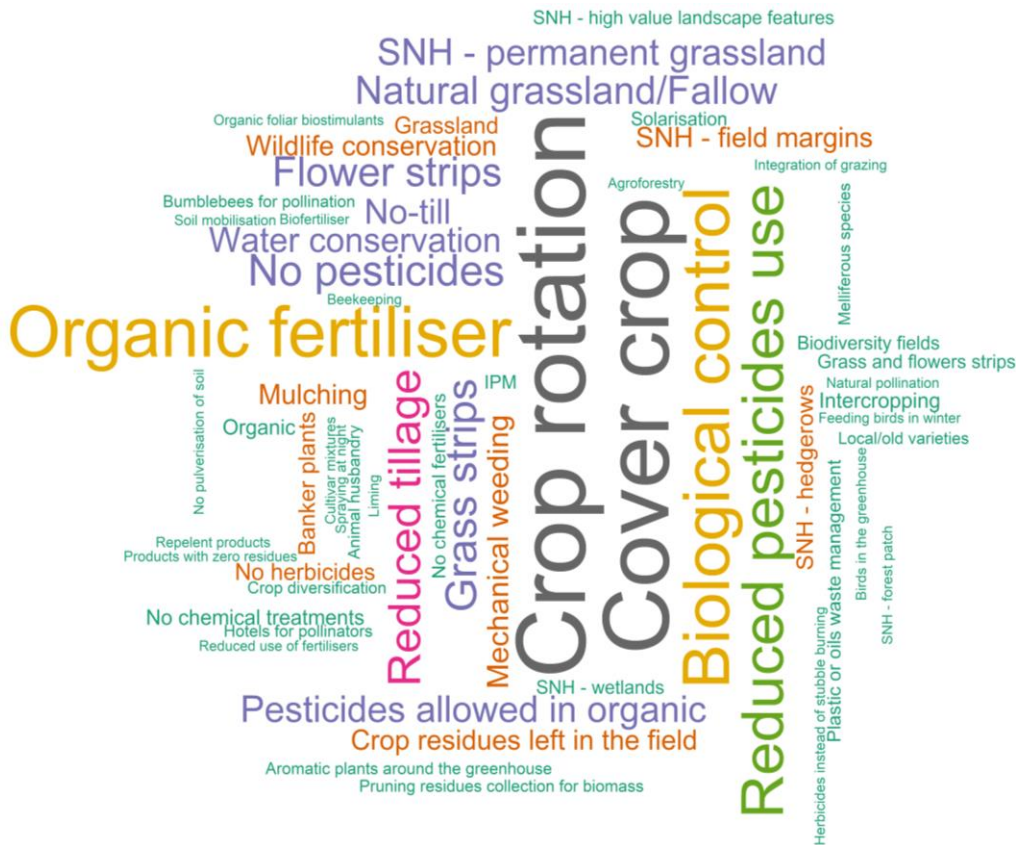


Figure 1 Environmentally friendly practices mentioned by farmers. The size of the font is proportional to the frequency of mentions. SNH=Semi-natural habitats.



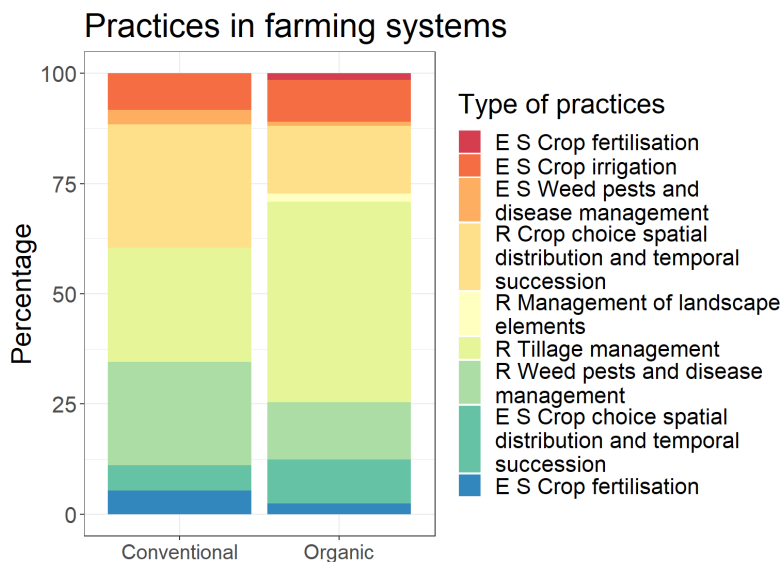


Figure 2 Proportion of environmentally friendly practices mentioned by farmers clustered following Wezel et al. (2014). ES=efficiency increase or substitution, R=redesign.

Environmentally friendly practices more frequently mentioned by farmers were redesign practices (R), especially cover crops and crop rotation, but also management of landscape elements (Figure 1+2). Efficiency and substitution practices (ES) were often mentioned, and these were mainly for weed, pest and disease management and crop fertilisation (e.g. organic instead of chemical fertilisers). Farmer responses also indicated that subsidies could positively affect the adoption of subsidised practices compared to unsubsidised ones.

What are farmers' motivations?

Among reasons for adopting environmentally friendly farming practices, farmers mostly mentioned motivations related to personal knowledge and skills (Figure 3). Access to external opportunities (information, markets, legislation etc..) was more often mentioned by conventional farmers (blue bar in Figure 3), in comparison to organic farmers. Conversely, organic farmers indicated reasons related to social consideration and intrinsic motivations (e.g. respect nature, preserve the environment) (red and green bars in Figure 3). Within the cluster related to knowledge and access to external opportunities, the most mentioned motivations related to subsidies and compliance to regulation (60 and 75% for conventional and organic farmers).

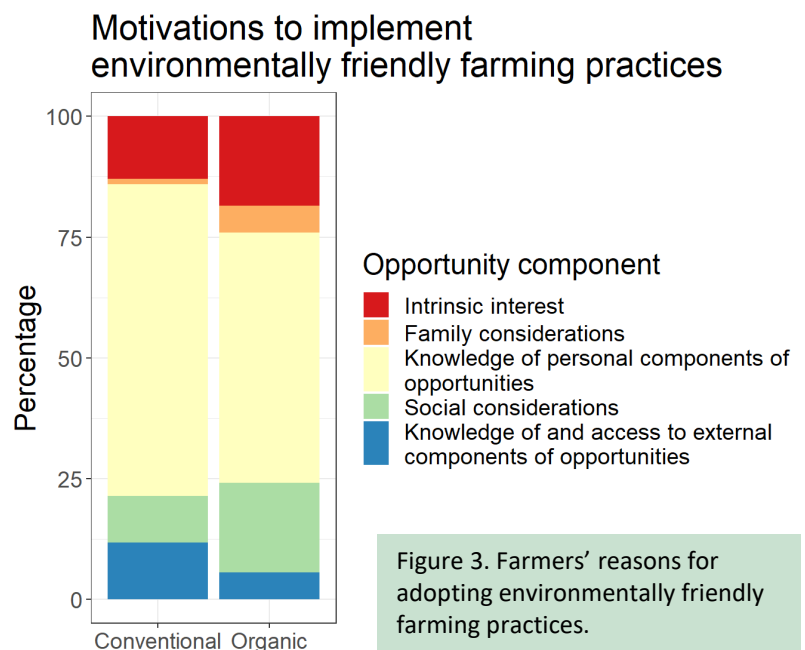


Figure 3. Farmers' reasons for adopting environmentally friendly farming practices.

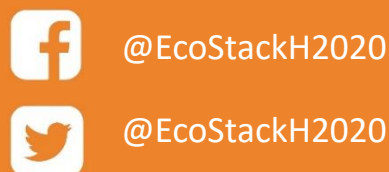
Key findings:

- Farmers across Europe are already implementing various farming practices that benefit the environment and provide services to farmers, e.g. cover crops to improve soil fertility or flowers strips providing habitats for beneficial predator insects.
- Farmers are generally motivated to take up practices they are familiar with, for which they already possess the necessary knowledge and skills. Social considerations and access to external information are also important.
- The role of subsidies in encouraging the adoption of environmentally friendly practices seems to be an important driver for farmers.



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