Master thesis: Understanding Farmers' Practices and Trajectories in the Integration of Crop Species Mixtures

Starting date: February or March 2026

Duration: 6 months

Working Place: Changins, Nyon Language: English/German

Contact: Esther Fouillet, Alice Baux

Email: esther.fouillet@inrae.fr, alice.baux@agroscope.admin.ch

Context and objectives:

Crop diversification is recognised as a key element of agroecological transition (Duru et al., 2015), playing an essential role in enhancing the resilience of agroecosystems (Tamburini et al., 2020). Among the possible diversification strategies, species mixtures, which involve growing several species on the same plot, are among the most promising. This practice offers many advantages for the agroecological transition, such as stabilising or increasing yields, diversifying rotations and landscapes, reducing the use of synthetic products, and improving the resilience of farms to climate hazards and market fluctuations (Bedoussac et al., 2015; Jensen et al., 2020). However, obstacles to implementing this practice exist at different levels of the value chain. To overcome these barriers, it is important to understand how certain farmers have managed to remove them and introduce species mixtures on their farms. Furthermore, many species mixtures are designed and grown by a limited but increasing group of pioneering farmers, with diverse objectives, as shown by studies on innovations in agriculture (Lamé et al., 2015; Verret et al., 2020).

The objective of this work is to analyse and characterize how farmers have implemented, adapted, and tested this practice within their farms, through the analysis of trajectories (Chantre et al., 2015; Moulin et al., 2008; Revoyron et al., 2022) and logics of action (Quinio et al., 2022; Salembier et al., 2020) mobilised to implement crop species mixtures into their systems. In 2025, a master thesis was conducted in metropolitan France, during which 15 interviews were carried out with farmers. This analysis highlighted eight generic logics of action associated with the 42 species mixtures identified, as well as typical trajectories of how these practices evolve. The study will be extended to include farms in Eastern Switzerland, while additional interviews will be conducted in Western Switzerland by Esther Fouillet. This work aims to shed light on the diversity of adoption trajectories of crop species mixtures across varied contexts.

Your mission:

- Data collection: Conduct interviews with farmers to characterize the adoption of crop species mixtures, the
 types of mixtures and the evolution of this practice over time. The interviews will be carried out in Eastern
 Switzerland.
- **Data analysis**: Analyse the data in order to: i) understand how crop mixtures are integrated into farms, their uses in different situations, their agronomic coherence, and the evolution of the practice (modification, abandonment, etc.); ii) propose a categorization (typology) of the diversity of trajectories observed, which may depend on the types of mixtures, the production context, and other influencing factors.
- **Dissemination of results**: Produce a final thesis and develop resources that can be directly used to provide ideas and guidance to other farmers interested in crop species mixtures.

Your profile:

- Education: Master's degree (M2) or final-year engineering student in agronomy / agroecology.
- Preferred experience / knowledge: Data collection through interviews, systemic approaches, knowledge of crop species mixtures.
- Skills: Ability to work in a team, strong interest in fieldwork, proficiency in German to conduct interviews, good command of English for literature review and analysis, and a valid driving license.

