



## Geographical scope:

Switzerland (various regions with high-stem orchards)



## Institution name:

Hochstamm Suisse and  
Forschungsinstitut für  
biologischen Landbau (FiBL)



## Number of participating farmers:

4 core farmers  
50+ high-stem fruit farmers



**Total budget:** MIXED project

**Funding:** Horizon 2020

## A bit more about the Case Study

The project focuses on fruit trees and livestock with the involvement of one group of farmers practicing MiFAS. The Hochstamm Suisse label requires farmers to meet certain requirements with a view to support sustainable farming systems. An increased focus on the contribution of mixed systems to biodiversity may help to support sustainable farming systems

Swiss farms are small structures and can be characterized as 'family farming'. The Swiss MiFAS is primarily engaged in North Western and Central Switzerland. The project also promotes knowledge-sharing among Swiss and German fruit farmers, strengthening regional cooperation and long-term adaptation strategies

## Highlights



Farmers are testing innovative pest and disease management techniques, including organic solutions and new thinning agents to improve fruit quality



The case study integrates high-stem orchards with livestock grazing and cereal production to enhance biodiversity and farm resilience



Farmers are highly dependent on subsidies and the future Swiss agricultural policy may further support sustainable farming systems through a subsidy system

## Website and project information

<https://projects.au.dk/mixed/networks-national-teams/switzerland>

<https://projects.au.dk/mixed/>



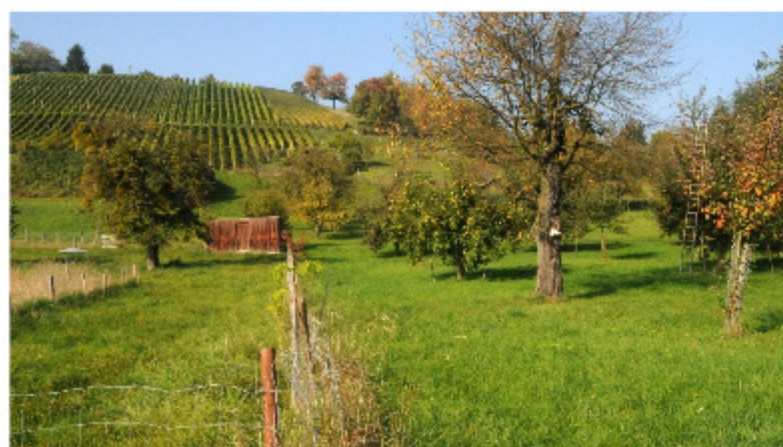
## Key outcomes and insights

### Innovative features

The Swiss case study introduces a diversified organic farming system that integrates high-stem orchards, livestock grazing, and cereal production, promoting agroforestry principles within traditional fruit farming. Through collaborative field trials, farmers tested organic thinning agents, pest control solutions, and mechanical orchard management techniques, improving both yield stability and long-term farm sustainability

### Environmental and socio-economic benefits

By enhancing soil fertility, promoting biodiversity, and reducing pesticide dependency, the project strengthens orchard resilience to climate change and supports ecosystem health. Socioeconomically, the development of cooperative knowledge-sharing networks and value-added fruit products helps farmers maintain economic viability, stabilize market supply, and adapt to organic farming challenges



## Good practices & Lessons learned

### Problem 1. Pest and disease management in high-stem orchards

Organic fruit production faces major challenges from pests like apple scab and other fungal diseases, leading to fruit deformation and yield losses



**Solution 1.** Farmers tested organic-approved treatments such as Armicarb, implemented better monitoring systems, and increased biodiversity in orchards to improve natural pest control

### Problem 2. Labor-intensive flower thinning

Regulating blossom and fruit set is critical for yield stability, but thinning is time-consuming and chemical options are not allowed in organic farming



**Solution 2.** Farmers and researchers tested mechanical thinning methods and organic thinning agents like Armicarb, adjusting dosages and timing to optimize effectiveness without harming the trees

### Problem 3. High rodent populations in orchards

Mice cause severe damage to tree roots and bark, but organic farmers have limited control options



**Solution 3.** Farmers experimented with improved trapping techniques, early intervention strategies, and habitat management to naturally reduce rodent populations while preserving biodiversity

### Problem 4. Yield fluctuations affecting market supply

High-stem orchards experience large variations in fruit production, making it difficult to maintain steady market supply and processor contracts



**Solution 4.** Farmers explored concentrate storage for surplus harvests, diversified fruit products, and strengthened supply chain agreements to ensure a more consistent market presence

**FiBL**

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**MIXED**  
EFFICIENT AND RESILIENT  
MIXED FARMING & AGROFORESTRY

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