

PROMOTING BIODIVERSITY IN GRASSLANDS OF THE SWISS JURA

Locations Switzerland

Dates 01/11/2019 - 31/12/2023

Summary

In Switzerland and other parts of Europe, the agricultural intensification during the second half of the 20th century has led to a homogenization of the landscape and a strong reduction in biodiversity. In the 1990s, the Federal Swiss government introduced direct payments for ecological compensation areas with the aim to promote the restoration of species-rich habitats in agricultural landscapes. As part of this, CABI is working on restoring biodiversity in grasslands in the Swiss Jura through the transfer of locally collected seed material.

The problem

Grasslands full of flowers, butterflies and grasshoppers used to be a common feature in Swiss agricultural landscapes. But due to intensive agricultural practices, including the application of inorganic fertilizer and slurry, species-rich grasslands have significantly declined over the past decades.

To compensate for the loss of biodiversity, the Federal Swiss government has introduced direct monetary payments to farmers to promote the establishment of ecological compensation areas that consist of natural vegetation. However, these

areas are often sown with a commercially available seed mixture which leads to standardized vegetation occurring instead of promoting regionally characteristic vegetation consisting of plant species that are adapted to the local soil and climatic conditions.

What we are doing

CABI, together with the Fondation Rural Interjurassienne, has started a project to encourage the restoration of regionally characteristic biodiversity on grasslands in the Swiss Jura.

Seed material is being collected from remaining species-rich grasslands in close proximity to the biodiversity promotion areas. To optimize the establishment of species-rich vegetation, two methods of seed transfer will be tested:

1. Collecting seeds with a wild flower meadow seed collector
2. Hay transfer

Studies on farms in the region will reveal which plant species can be promoted using these seed transfer methods.

The project will also consider whether other factors, such as soil preparation, influence the restoration of plant biodiversity and whether insects, that occur only if their host plants are present, also benefit from the more diverse vegetation established using locally collected seed.

The knowledge gained in this project will be disseminated among farmers and the general public in the Swiss Jura and incorporated into curricula of agricultural schools.

Results so far

First experimental trials were set up in 2020 and results will become available from late 2021 onwards.

Donors Loterie Romande, Fondation sur la Croix

Partners Fondation Rural Interjurassienne

CABI Project Manager Urs Schaffner






https://www.cabi.org/what-we-do/cabi-projects/