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## Keywords

Biodiversity

Farm territory

Adaptive management

Collective approach

Indicators

## Thematics involved

Ecology

Agronomy

Animal Physiology

Management Sciences

Animal Science

## Departments involved

ACT

ECODIV

## Units involved

UE PAO

UMR PRC

UE Saint-Laurent-de-la-Prée

UMR SADAPT

# Tools for restoring biodiversity on farms: improving a results-driven approach

## Backgrounds and challenges

The erosion of biodiversity is no longer in doubt, with intensive agriculture highlighted as the primary factor in this decline. The preservation/restoration of biodiversity is a central issue for many stakeholders (naturalist associations, public authorities, agricultural players, etc.). Beyond the desire to act, a major question arises: how can we achieve ambitious biodiversity objectives when the issue of biodiversity conservation is not shared? What approaches, tools and knowledge do we need to develop to enable biodiversity to become an issue for all stakeholders in the agricultural supply chain, in the same way as food/feed production?



## Objectives

The aim of the AMDOR research project (funded by Biosefair 2021-2023) was to develop a results-based approach that could be implemented at farm level. This approach was implemented at the Saint Laurent de la Prée Experimental Unit and initiated at the FERLUS Experimental Unit (Lusignan). The first results have shown that its application requires

- The involvement of the stakeholders (farm managers and members of the experimental farms) in the approach and in the objectives of preserving/restoring biodiversity
- The choice of the most relevant indicators for monitoring the results of the actions undertaken to preserve/restore biodiversity.

AMDOR proposes to explore these two elements using a research-intervention approach in order to: 1) improve the involvement of stakeholders in the project by integrating a stage of collective conception of biodiversity issues, and 2) identify meaningful biodiversity indicators that can be easily implemented on farms without the need for specialists to collect and analyze them. We will be focusing on the methodological elements that enable biodiversity management to be positioned as an objective for the farmer, and that allow biodiversity to be appropriated. This project will be implemented at the Experimental Unit of Animal Physiology (PAO - INRAE Val de Loire de Nouzilly).

## Approaches

The approach involves a collective conception step with partners (in this case, EU PAO agents) to draw up a project setting out quantified biodiversity objectives (target taxa and/or habitats) and the actions required to achieve them. In this approach, researchers are the providers of knowledge, but are not involved in the choices made.

Project definition is based on various group workshops:

- Sharing of representations of biodiversity by the people who will have to implement the actions.
- Sharing of knowledge on "biodiversities" (identified during the 1st workshop) and choice of those to be the focus of actions during the 2nd workshop.
- Drawing up actions to be carried out and results indicators (including measurement devices and protocols).

The results of the actions implemented are summarized in a project scoreboard, with the aim of sharing results between project partners, detecting both successes and difficulties, and co-analyzing the causes of those successes and failures. The partners adapt and re-design a new version of the project for the following year, to give themselves new ways of succeeding. Differences between expected and actual results are examined annually, and the project is rebuilt or adapted whenever necessary.

The approach will initially be implemented within the EU PAO equine unit (6 project members), before being extended to all teams in the INRAE PAO experimental farm.