FAB4FARMING : ROLE OF FUNCTIONAL AGROBIODIVERSITY FOR SUSTAINABLE FARMING

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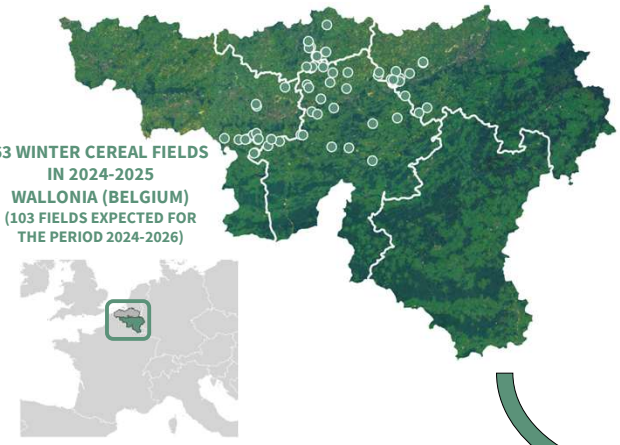
OBJECTIVES

The FAB4Farming (**Functional Agrobiodiversity** for Farming) research project seeks to understand:

- How **agricultural practices**, **landscape characteristics**, and **climate** shape **functional agrobiodiversity** ?
- How can we shift from broad farming systems categories to **gradient-based analysis** using precision assessment indicators ?

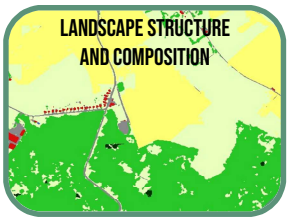
METHODS



63 WINTER CEREAL FIELDS IN 2024-2025 WALLONIA (BELGIUM) (103 FIELDS EXPECTED FOR THE PERIOD 2024-2026)

FARMERS INTERVIEWS

- Pesticide use
- Tillage intensity
- Diversity of cover crops
- Soil coverage
- Fertilisation



SOIL AND BIOMONITORING

Soil	Pollen
pH, C/N, O.M., C.E.C.	Genetic analysis
Pesticide residues	

INDICATORS

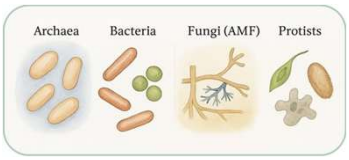
TAXONOMIC AND FUNCTIONAL DIVERSITY
MULTI-TROPHIC DIVERSITY
ABUNDANCE/BIOMASS

CARABIDS

CIRCULATING ENTOMOFAUNA

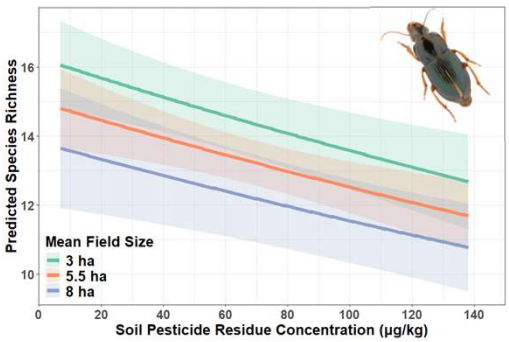
EARTHWORMS

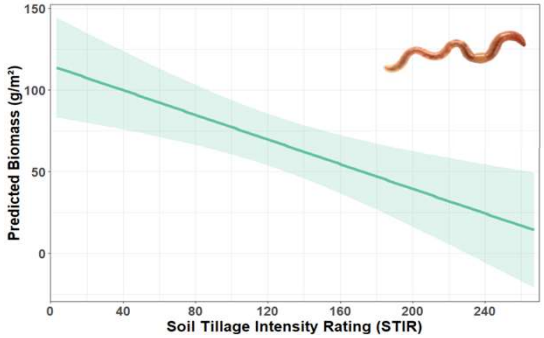
SOIL MICROORGANISMS



PRELIMINARY RESULTS AND DISCUSSION

PRELIMINARY RESULTS ON CARABID AND EARTHWORM DIVERSITY





DISCUSSION

- **Increasing soil pesticide residue concentrations** and **larger field sizes** both significantly **reduce carabid species richness.**
- **Higher tillage intensity diminishes** significantly **earthworm biomass.**
- Our preliminary results underscore the **benefits of low-input** and **reduced-disturbance** for maintaining **functional agrobiodiversity.**
- Results from 2025 and 2026 will provide a broader understanding of the full list of indicators shaping functional biodiversity.

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Avec le soutien de la Wallonie

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