

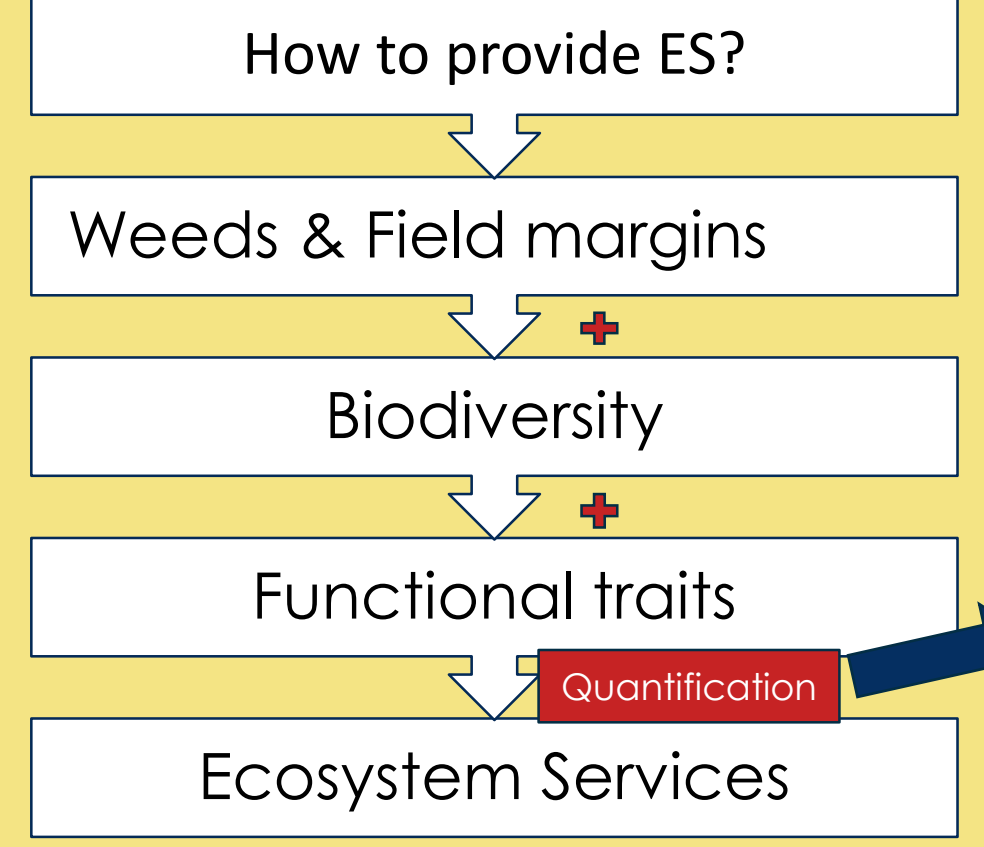
# WEEDS AND FIELD MARGINS: THE OTHER SIDE OF THE COIN

Tommaso Gaifami | University of Florence | Department of Agrifood Production and Environmental Sciences (DISPAA)

## Scope of the study

Evaluation and quantification of Ecosystem Services (ES) provided by spontaneous species through an analysis of plant functional traits

## Research question



- How to measure Ecosystem Services provided by weeds and field margins?
- Which species traits are related to the potential of the species to improve the agroecosystem's capacity to provide Ecosystem Services?

## Research information

**WHERE:** Montepaldi Long-Term experiment (MoLTE)

### SCIENTIFIC BACKGROUND:

- Role of Weeds & Field margins
- Interest of society in Ecosystem Service to compensate for:
  - Air, water and soil pollution
  - Consumption by modern agricultural practices (Moonen et al., 2008)

## Weeds and Field margins

Negative aspects (Current situation)

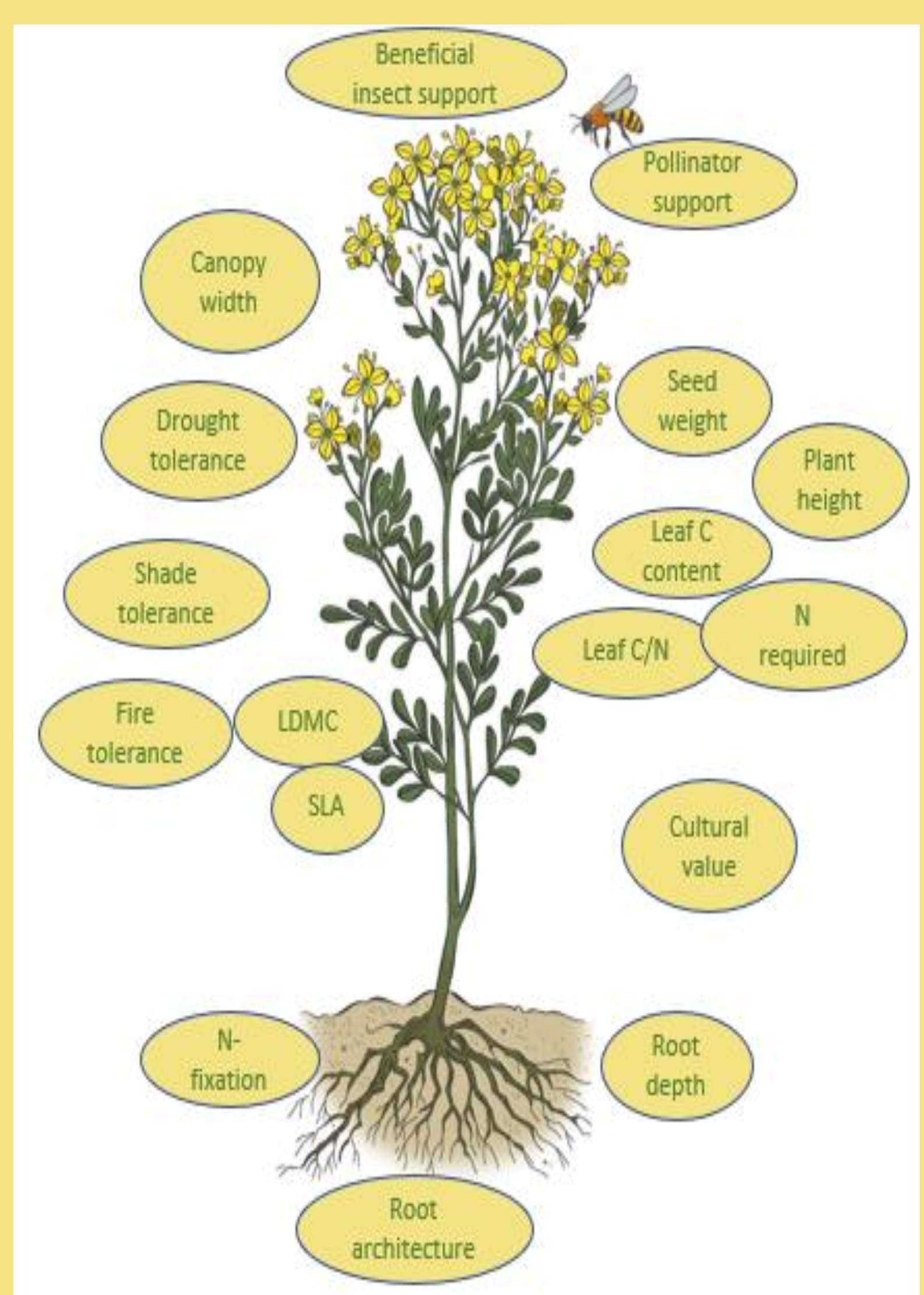
- Compete for resources with main crop
- Source of pests
- Obstacle for machineries
- Reduction remunerative land

Positive aspects (Future scenario)

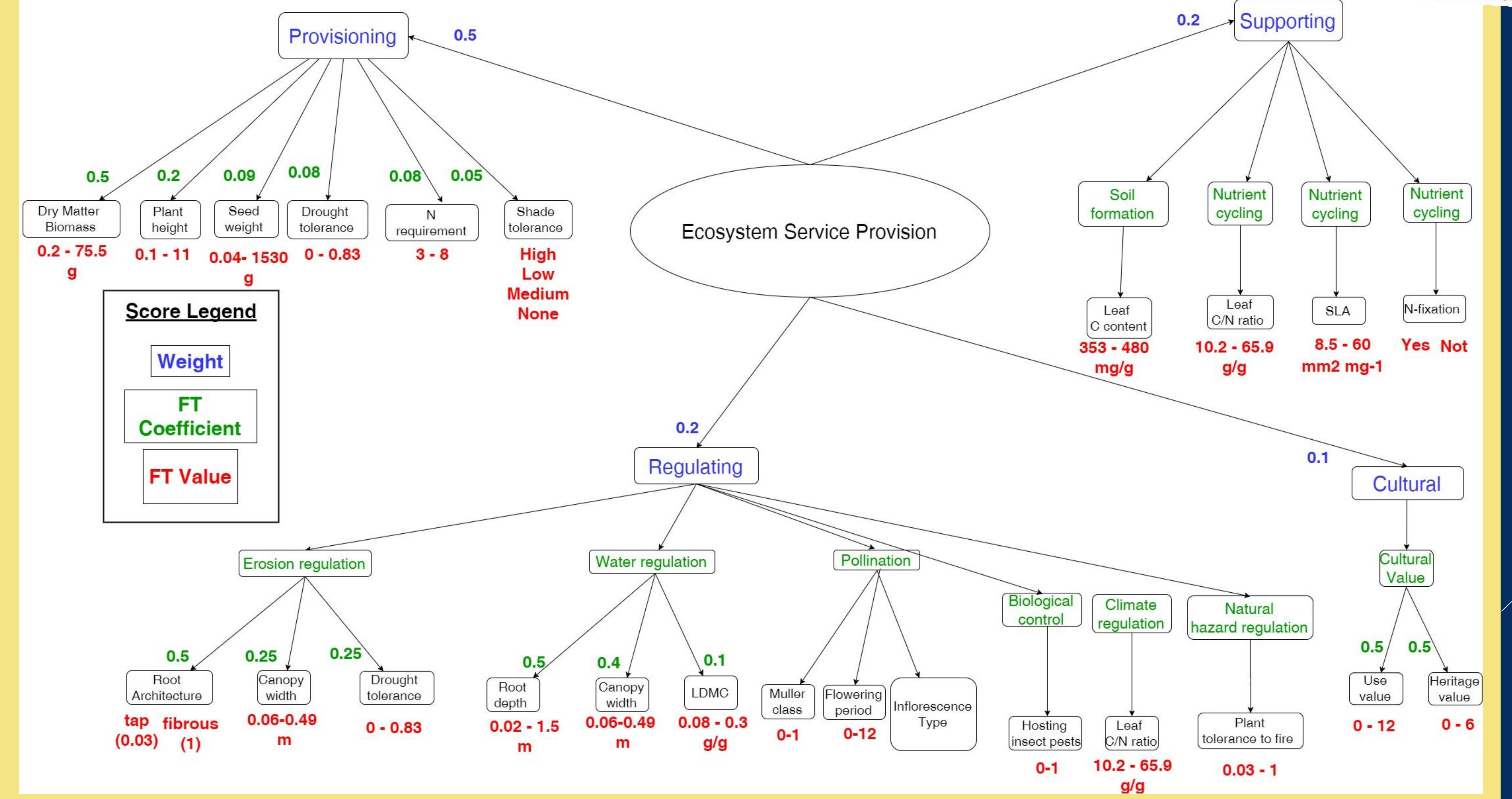
- Aesthetic value, windbreakers
- Shelter and overwintering
- Alternative goods resources
- Providing other ES

## Materials and Methods

### Selected Functional Traits



### Conceptual Model



## Model Application

- Evaluation of Functional Biodiversity
- Comparison tool:
  - Organic vs Conventional
  - Different tillage
  - Different agricultural practices
  - Different rotational scheme