

## STUDY SITE 16: Brittany, France

### Responsible partner: 28, FRAB

Crop systems: mainly wheat, maize and grassland.

**Economic context:** traditionnal dairy area, with large dairy companies. For the last 10 years, oganic farming and alternative growing methods show a strong growth, driven by social demand





Fédération Régionale des Agrobiologistes de Bretagne

### o WP5: monitoring - Ongoing experiments in France

# Wheat early sowing 1 site

**Aim**: experiment early sowing of wheat based on Bonfils method (divide sowing rate by two per month in advance, and sow wheat with companion/gelive plants), compared to a « conventionnal » sowing (mid-november)

#### **Objectives:**

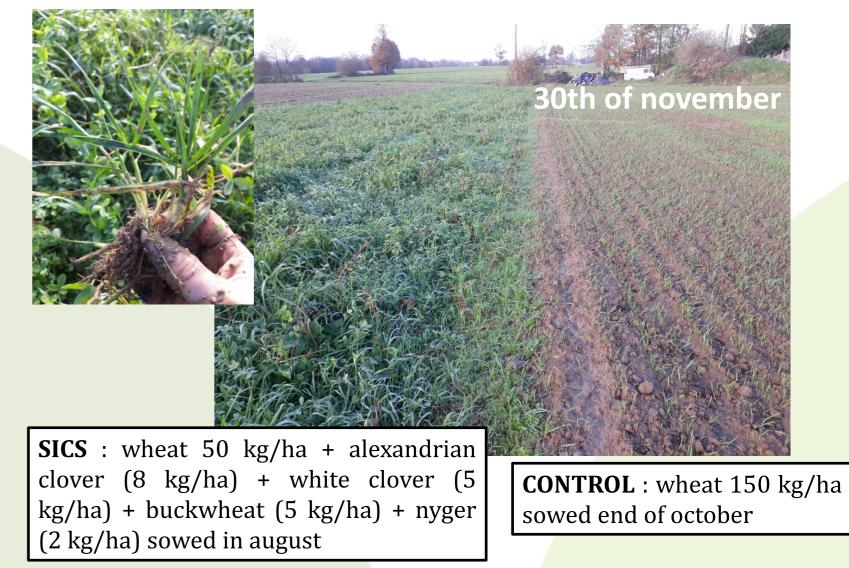
- -Limit « automn tillage »/limit erosion
- -Limit nitrogen losses

## Maize direct sowing 2 sites

**Aim**: experiment maize direct sowing in a faba bean-pea cover, using a front-roller (faca) and a direct seed drill

#### **Objectives:**

- -Eliminate tillage for maize sowing = limit erosion
- -Limit weed development (mulch) and eliminate mechanical weeding





SICS: direct sowing of maize (100 000 seeds/ha) in faba-bean (120 kg/ha) + pea (120 kg/ha) cover (sowed in november of the previous year)

CONTROL: spontaneous cover with Italian ray grass after the harvest of a cereal, or oat cover-crop (120 kg/ha): ploughed before maize sowing

Cover crops
2 sites

**Aim**: experiment a complex cover-crop compared to a mono-specific cover

#### **Objectives:**

- -Obtain a better nitrogen capture
- -Beneficial effect of the complex cover-crop on soils (spring mineralization, limitation of ploughin pan, porosity...)

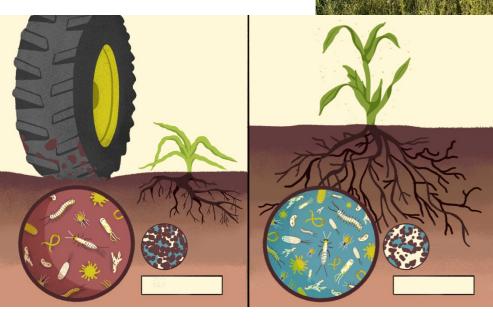


**SICS**: oat (25kg/ha) + radish (3kg/ha) + phacelia (3kg/ha) + faba bean (45 kg/ha)



CONTROL: oat (100 kg/ha)





Drawing for farmers brochure

#### o WP8: dissemination

- FRAB Agricultural fair with a soil demonstration area (2018, September 26 and 27)
- **8 000 visitors**: farmers from all over France, students, technical experts
- Soil area: the 3rd most appreciated area on the fair favorite area of 15% of the visitors
- Good press coverage (4 articles in specialized and non-specialized press)
- Brochure "Ten common practices and their actual negative impacts on soil"
- Practical document for organic and non-organic farmers 1.000 to 2.000 copies
- Presenting ordinary practices not appropriate to enhance soil productivity, with drawings
- 3 stakeholders meetings since the beginning of SoilCare (06/06/16, 11/07/17, 20/04/18)

The **SOILCARE** project is a 5 year project aimed at identifying and evaluating promising soil improving cropping systems and agronomic techniques increasing profitability and sustainability across scales in Europe.

The SOILCARE project consortium consist of 28 partner institutes from 10 European countries The SOILCARE project is coordinated by ALTERRA, Wageningen UR, The Netherlands.

• Starting date: March 1st 2016. • Ending date: February 28th 2020. • EU contract number: 677407

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