



# Increase the protein self sufficiency for the livestock farms of west of France

## 1 – The experimental farm of Thorigné d'Anjou (organic cattle farm)



## 2 – The operationnal group : 4ageprod



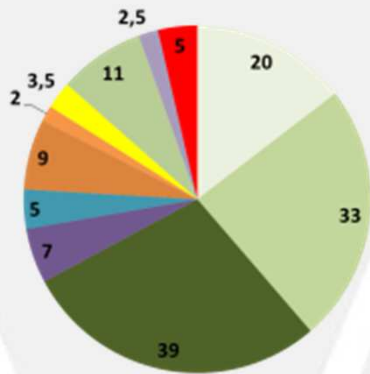


# 1) Expérimental farm of Thorigné d'Anjou



*A research and development structure, created in 1998  
To serve the organic farming development and sustainable agriculture.*

- Natural Grasslands
- Tempory grasslands
- Tempory grasslands
- Alfalfa
- Céréals/protéin silage
- Céréals/protéin grain
- Triticale
- Wheat
- Horse bean
- Sunflower
- Trials



137 ha,  
76 % fodder area  
24 % grain crops  
Low soil potential :  
hydromorphic in winter,  
dry in summer  
680 mm rainfall/year



Limousin cattle of 115 LU :  
68 suckler cows + followers  
+ 15 steers / year (31/32 m)

5 ha with analytical tests :  
Grasslands, crops



A small team : 2 researchs engineers, 3 technicians



Communication : training sessions, tours, open days



## Several ways to have self sufficiency

- **Various flora grassland**

**+ 1,5 DM/ha  
for Various flora  
VS  
Ryagrass/white clover**

**Composed of : 5 to 7 species :**

**Fescue**

**Ryagrass**

**White clover**

**Hybrid clover**

**Lotier corniculé**

**Specific diversity brings positive effects :**

**On the productivity and rusticity**

**More flexibility in the grass management**



## Several ways to have self sufficiency

- **Cereals/protéin crop associations**

**Associations for forage :**

Triticale/Pea/vetch harvest in silage  
around the 15th june.

8,5 T DM / ha, 9 % of crude protein (CP)

**Associations in grain :**

Triticale/pea

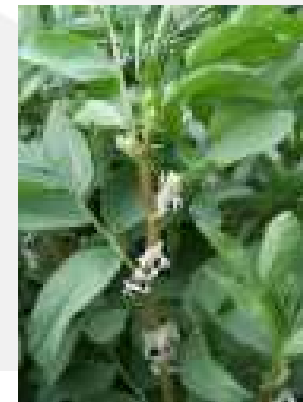
with 35 % of Pea

A balanced food concentrate  $\approx$  14/15 % of CP

- **Protéin crop : horse bean**

2,6 t DM in grain / ha

28 % of CP





## 2) The operationnal group : 4ageprod



- ✓ Piloted by the PAO : Pôle Agronomique Ouest
- ✓ Objectives : Produce high rate of protein forage and references to feed cattle.
- ✓ Cultures concerned : Alfalfa, clover, association of cereal-leguminous, grass-leguminous and pasture



# Specific tests for 4ageprod on the farm



1 – Alfalfa harvest :  
Test on two types of Alfalfa harvest.  
Test on a windrow turner.  
The aim is to reduce the leaf losses,  
to conserve most protein value.

2 – “Perpe’t” : grassland sustainability  
Increase the duration of grassland productivity  
with improvement of the practices  
collection of data :  
Botanical composition, production  
during 4 years, in several parcels





## Many other actions by lot of partners



- ✓ For exemple :
  - Forage production and zootechnical tests in other experimental farms
  - Monitoring of grassland silage harvest and conservation in 40 farms
  - harmonization of protocol
  - synthesis of data
  
- ✓ More than 18 Partners work on this project :  
*Regional chambers of agriculture, Breeding and vegetable Institute, Organic networks, researchers, Cooperatives, livestock advisory, farmers, experimental farms .....*
  
- ✓ Duration: 2016-2019 -> In progress, results expected mid 2018

