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SOLIBAM – WP6



“Blé Poitou”, beginning of a participatory project for co-breeding (wheat and legumes)



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Solibam workpackages:
 ✓ WP6, T6.2 - participatory plant breeding and management and developing methodologies for participatory research



Platform at wheat maturity

Objectives

This project aims at empowering the farmers of the association « Cultivons la biodiversité en Poitou-Charentes » (CBD) for breeding wheat varieties adapted to their practices. The farmers of the association are particularly interesting in co-breeding wheat and legumes. This project is also a way for developing participatory working methodologies.

Stackholders/partners

Researcher, engineer, working organiser of seed association, farmers

Methodology

The project started in 2010 when farmers of the CBD association asked INRA to work within a project of participatory breeding for wheat and legumes (co-breeding). From the beginning of the project (spring 2010) to 2011 sowing, we can distinguish 3 steps:

Before field trials

Engineer and researcher from INRA, a farmers' representant and a worker of the French Farmers' Seeds Network met to draw the frame of the project.

- ✓ Definition of the needs of the farmers involved in terms of wheat varieties (productive, high, not lodging and « free » varieties)
- ✓ Construction of a common experimentation for the first year:
 - a platform with 32 chosen varieties, 2 replicates
 - collective sowing of the platform with farm means
 - 2 common observations with the farmers involved (after winter and at heading time) and additional observations by the worker of the association

In the fields

Farmers, the working organiser of CBD and the INRA engineer have sown the trial together. During the wheat cycle, this working group met 2 times in the year to observe the different varieties and collect data together according to the following methodology:

- ✓ The criteria proposed by the engineer were explained and discussed with the farmers, sometimes changed, before the observations in the fields
- ✓ Common observation of some varieties were done in order to test and homogenise the scaling of each criteria
- ✓ Individual observation of one replicate of the platform was done by each people

A visit with the participation of a researcher from INRA took place in June and gathered other farmers of the association and some funders.

How to continue after harvest?

After harvest, a meeting was organised to draw the continuation of the project. Farmers chose some interesting varieties from the results. Then, the group were devoted to the building of the methodology of the second year:

- ✓ each farmer performs on-farm trials with seeds of varieties chosen on the platform of first year and they will sow companion crops in the wheat according to their objective (commercial seeds for the beginning)
- ✓ Farmers collect observations on their own on the wheat varieties
- ✓ One or 2 visits of 2-3 farmers will take place at spring in order to exchange on the on-going trials



Common and individual observation of the platform



Platform at heading time



Farm day: visit of the platform with researcher and farmers

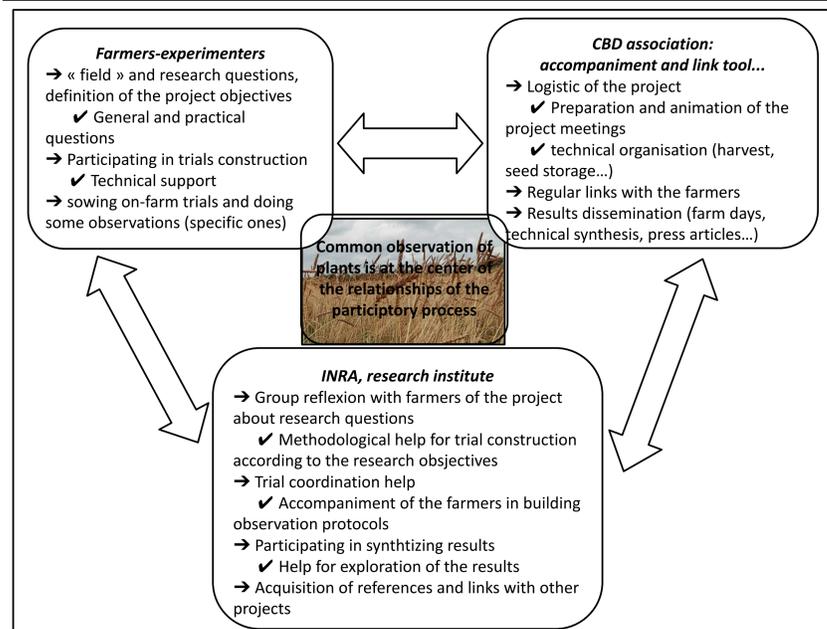


Figure 1: project organisation

Results or expected results

Platform results:

No specific type of variety (modern, mixture, « old » or megamix) seemed more adapted to the farmers' needs.

Each farmer chose one or more varieties corresponding to its own objectives. However, **no modern variety** was chosen.

Methodological results

During this first year of experimentation, the different partners learnt **how to work together** and invented their **own project organization** (see figure 1).

Farmers **discovered a methodology for experimenting on wheat** (why to put different replicates, how to do specific observations...). They all said at the end of the first year that they **have learnt how to observe wheat** in a different way and thanks to this common experimentation, **they felt enough experimented to build their own trials on-farm** the second year.

