



**HAL**  
open science

## Participatory Plant Breeding for quality: maize in South West of France

Veronique Chable, Isabelle Goldringer, Jennifer Kendall, Rémi Lebrun,  
Bertrand Lassaigne

### ► To cite this version:

Veronique Chable, Isabelle Goldringer, Jennifer Kendall, Rémi Lebrun, Bertrand Lassaigne. Participatory Plant Breeding for quality: maize in South West of France. SOLIBAM 1st Stakeholder congress, Apr 2012, Rome, Italy. 1 p. hal-01210047

**HAL Id: hal-01210047**

**<https://hal.science/hal-01210047v1>**

Submitted on 6 Jun 2020

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



# SOLIBAM – WP6 Task 6.6.2

## Participatory Plant Breeding for quality: maize in South West of France



Véronique Chable<sup>1</sup>, Isabelle Goldringer<sup>2</sup>, Anne Zanetto<sup>3</sup>, Jennifer Kendall<sup>4</sup>, Rémi Lebrun<sup>4</sup>, Bertrand Lassaigne<sup>4</sup>

1 - INRA, SAD Paysage, 65 rue de Saint Brieuc, 35042 Rennes – France, [Chable@rennes.inra.fr](mailto:Chable@rennes.inra.fr) ; 2 - INRA, UMR8120, 91190 Gif sur Yvette – France, [isa@moulon.inra.fr](mailto:isa@moulon.inra.fr) ; 3 – INRADIAPC, domaine de Melgueil, 34130 Maugeio – France, [Anne.Zanetto@supagro.inra.fr](mailto:Anne.Zanetto@supagro.inra.fr); 4 - AgroBio Périgord, 20 rue du vélodrome 24000 Périgueux, France, [biodiversite@agrobioperigord.fr](mailto:biodiversite@agrobioperigord.fr)

**WP and Task objectives :**  
**WP6, Task 6.2** develops methodologies for participatory research  
**Sub-task 6.2.2** will explore a multiple-stakeholder case through the participatory evaluation of organoleptic quality  
 WP7 : quality

**Objectives:** (1) to identify the effects and interactions of breeding and management innovations on maize nutritional, organoleptic and end-use qualities from PPBM activities on farm for maize in Perigord and (2) to provide methodological tools to farmers to select diversify populations which provide high quality products that had made the historical and cultural value of the plant in the area.



Photos INRA et AgroBio Périgord



### The actors

The methodological development involves researchers, farmers, end-users and consumers to characterise the qualities of maize. The particularity is the involvement of famous “chefs” of local restaurants.

### The maize populations

10 varieties are evaluated in the experiment: 7 traditional populations from several countries (4 from France and one from Italy, Portugal, Spain and Guatemala), one farm variety (a dynamic population created by a farmer) and one F1 hybrid (the control), then, a mix of population varieties had been constituted for the quality assessment.



Les moutures



Farine, semoule et son  
3 variétés différentes

### The methods

The varieties are characterised for their milling behaviour. Then, sensorial analysis had been organised with several groups: professional and consumers. Several kinds of sensorial quality had been performed in 2011 to improve the quality assessment.



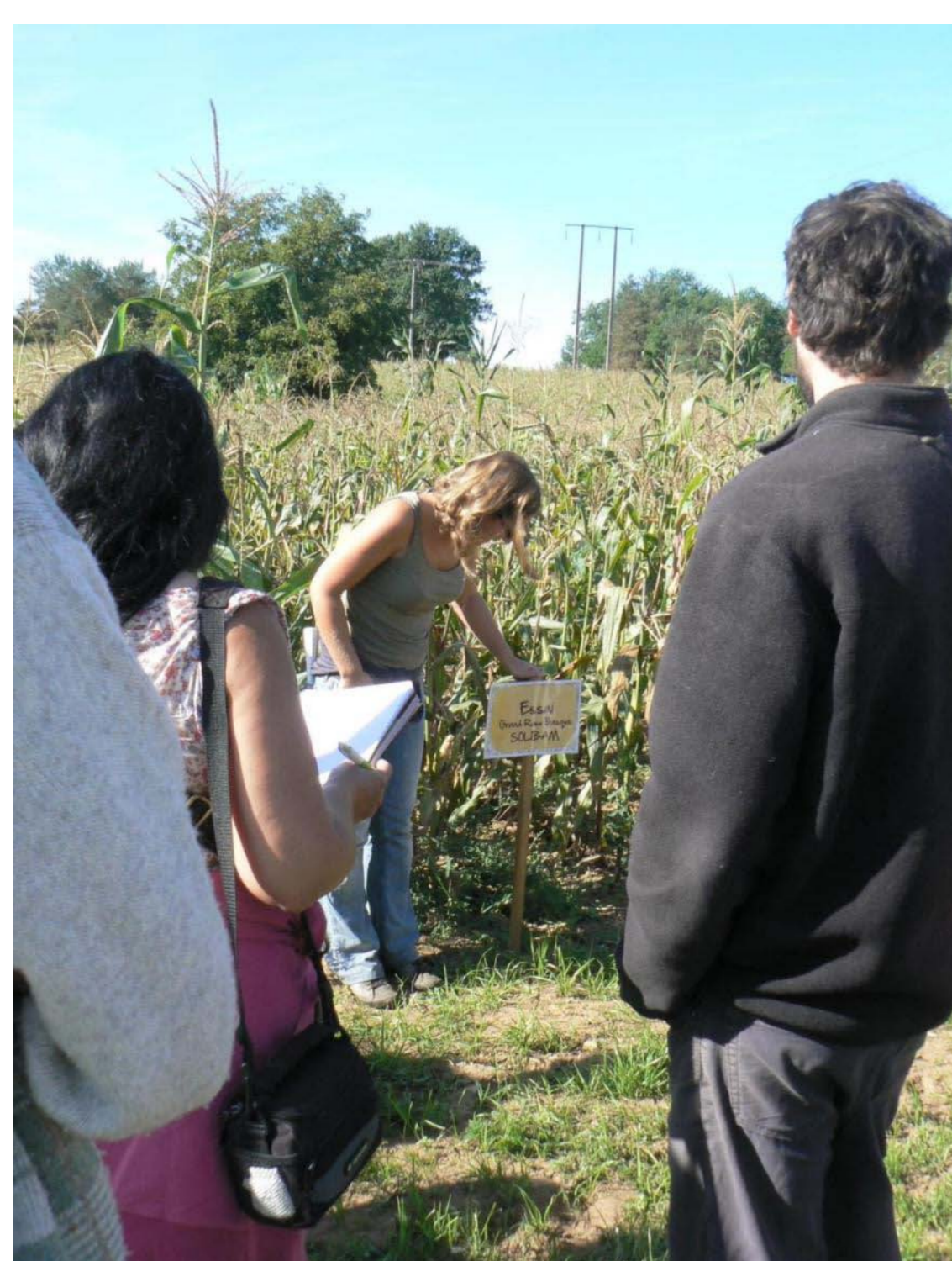
Photos AgroBio Périgord



Photos Slow Food et AgroBio Périgord

### First results

- The varieties was evaluated for their ratio flour/semolina/bran.
- The difference between the varieties seemed clearly assessed by the consumers, and mainly by the chefs who identified specific recipes for each variety.



Photos INRA

### Perspectives 2012 - 2013

- New milling tests and quality parameters will be performed in parallel.
- Eight varieties had been harvested at the end of 2011 and will be involved in sensorial test in 2012. Nutritional analysis in collaboration with ITQB team, in Portugal, has been planned.
- In the fields, the same varieties will be sown within few weeks.



Stakeholders

