



This project received funding from the European Union's Horizon 2020 Research and Innovation program under Grant Agreement n° 727848

Author: Réseau Semences Paysannes

Contact: contact@semencespaysannes.org

Editor: RSP

Link: www.semencespaysannes.org



About CERERE

Through a balanced, multivector network of researchers and communities of practitioners, the project promotes innovation by producing and disseminating accessible enduser materials and training products for farmers, food manufacturers, consumers, researchers and policy makers.

ON-FARM SELECTION AND MANAGEMENT OF LOCALLY ADAPTED AND GENETICALLY DIVERSIFIED WHEAT POPULATIONS

PROBLEM

Selection and management of wheat varieties has constraints of local adaptation while preserving an adequate genetic diversity.

SOLUTION

The selection taking place on farms allows each producer to find a population adapted to its conditions and with a good taste. In order to maintain the genetic diversity of the populations, during farmers meetings, each one brings 5 kilograms of seeds of its population, which will be mixed with those of the populations of the other farms. Then, everyone leaves with 5 kilos from this mixture to integrate into its population. This strategy on the dynamics of wheat diversity was developed jointly by Gab 65 and the Réseau Semences Paysannes to maintain genetically diversified populations at the farm level.

Outcomes

Thanks to a few percent annual genetic renewal, this method makes it possible to maintain the adaptive capacities of the wheat populations while adapting those population to the local conditions of each farm. This is a method used by the farmers of *L'Odyssée d'Engrain*, a cooperative society with collective interest, member of Réseau Semences Paysannes.

Practical Recommendation

- o When you get seeds of a population, it is necessary to sow during the first year a small plot and make a selection of plants corresponding to the desired type in order to have a seed lot of which we are sure that it corresponds to the desired variety.



- It may be useful to visit the plots of farmers bringing seeds to mix during the farmers meetings before mixing these lots to ensure the characteristics of their populations. Particular care should be taken not to mix seed lots of different varieties or even different species as these mixed seeds will then be found on the plots of all participating farmers.
- Seeds of different varieties of wheat may be found in seed lots during threshing, sorting, etc. As long as it stays to a reasonable extent, it adds a bit of diversity to the populations.

Further Information

<http://odysseedengrain-patesbio.fr/>

Theme: Agronomic practices

Keywords: Wheat; selection; genetic diversity

Crop: Wheat

Country: France

Related CERERE case study: SCIC L'Odysée d'Engrain

Languages: French; English

Year of release: 2018

Project partners

The University of Reading (United Kingdom), The University of Florence (Italy), Rete Semi Rurali (Italy), Réseau Semences Paysannes (France), Institut National de la Recherche Agronomique (France), The University of Helsinki (Finland), The Irish Agriculture and Food Development Authority (Ireland), Red Andaluza de Semillas (Spain), Formicablu (Italy), Organic Research Centre (United Kingdom), SEGES P/S (Denmark), Institut Technique de l'Agriculture Biologique (France), The University of Debreceni (Hungary).

Evaluation and sharing of the results

Use the comment section on the CERERE website to share your experiences with other farmers, processors, retailers, advisors and scientists. If you have any questions concerning this Practice Abstract, please contact the author by e-mail.