

## Submitted Abstract

ID IMC22-FSAbstr- 201

<b>First Author</b> First Name Last Name	Martina (1) Ghidoli
<b>Submitting Author</b> First Name Last Name	Martina Ghidoli
<b>Correspondence</b>	martina.ghidoli@unimi.it
<b>Co-Authors</b> >> E-Mails will be not listed	Licheri, Giovanni Luca (1); Franguelli, Nicolò (1); Colombo, Federico (1); Dell'anno, Matteo (2); Rossi, Luciana (2); Giupponi, Luca (3); Pilu, Roberto (1)
<b>Organisations</b>	1: Department of Agricultural and Environmental Sciences - Production, Landscape, Agroenergy, University of Milano, Via Celoria 2, 20133 Milano, Italy 2: Department of Veterinary Medicine and Animal Sciences, University of Milano, Via Dell'Università 6, 26900 Lodi, Italy 3: Centre of Applied Studies for the Sustainable Management and Protection of Mountain Areas-CRC Ge.S.Di.Mont, University of Milan, Via Morino 8, Edolo, 25048, Italy
<b>Country</b>	Italy
<b>Region</b>	Western Europe
<b>Title</b>	Reintroduction Of Rye And Wheat In Antrona Valley: The Sociaalp Project.
<b>Keywords</b>	Pgrfa, Agrobiodiversity, Terraced Environment, Rye, Wheat
<b>Type</b>	List Of Focus Session
<b>Focus Session ID</b>	40

## Abstract

The SOCIAALP (Reti Sociali per Agroambienti Alpini) project granted by CARIPLo foundation represents a social innovation project and identifies in the terraced landscape and in the quality, diversified local productions, with low environmental impact (organic and low input crops) a fundamental driver for relaunching the agricultural sector of mountain valleys in a multifunctional and inclusive perspective, inserting it in the recovery and enhancement path.

In the Alpine region, characterized by steep slopes, the terraced systems supported by dry stone walls represent a traditional technique, widely used in the past, which allowed the creation of arable areas.

The project is part of this context with the aim of restoring the functionality of some terraces located in some localities of the Antrona valley. Part of the terraces has been restored in order to start profitable crops to strengthen the bond between local communities, their works and the alpine environment. Rye and wheat were reintroduced with the aim to preserve the PGRFA (Plant Genetic Resources for Food and Agriculture). In this frame, this reintroduction is aimed at resuming the historic rye bread supply chain that had been abandoned several years ago.

Rye bread is a type of bread made with different proportions of rye/wheat flour. Rye bread was considered a staple through the Middle Ages and in mountain areas the use of rye bread was a tradition until the beginning of the second half of the last century when it was abandoned following the depopulation of the mountain areas. In recent years, a renewed interest in this product has been growing due to the nutritional properties of rye flour.

In this project, the best rye and wheat varieties were cultivated in randomized block designs in the Antrona valley terraced environment. Bromatological analyses were also carried out on flour collected for each variety. Adaptation to climate change is a very difficult breeding goal because of its complexity, its location specificity, and unpredictability. However, one possible solution on a small scale is based on the dynamic use of agrobiodiversity in agriculture through the cultivation of evolutionary populations. In fact, in this work pure line, mixed and populations were used.