



ROOT TO FOOD: A comprehensive look at the food chain

Seed supply systems, integrated crop management strategies, and the strengthening of the social, organizational, and business fabric are sustainable alternatives to improve crop yields in family farming in Latin America.



Production of high-quality seed of native potatoes, adoption of integrated crop management strategies to increase crop yield

Initiative

Through participatory rural innovation strategies, this platform seeks to improve the production system of potatoes and Andean tubers for small producers in Bolivia and Colombia by using seed of good genetic and phytosanitary quality and implementing integrated crop management strategies. Currently, the

seed is available to small farmers without relying on third parties for supply. By adopting integrated management strategies, the use of agrochemicals has decreased, positively impacting the environmental and economic sustainability of the production systems.

The use of good quality seed, the adoption of integrated management strategies and socio-organizational strengthening increase the yield of potato crops and Andean tubers in family farming

Tech solution

With the strengthening of the community fabric of the families participating in the project, the production system of potatoes and Andean tubers for small producers has been improved, encouraging the use of seeds with good genetic and phytosanitary quality. The adoption of Integrated Crop Management (ICM) strategies has led to a reduction in the use of agrochemicals, positively impacting the environmental and economic sustainability of the crops. In

Colombia, seeds of native and commercial varieties are being produced in a "low-cost pilot laboratory" managed by rural women trained in the use of biotechnological tools for in vitro tissue culture. In Bolivia, the cleaning and multiplication of seeds through in vitro tissue culture and the Autotrophic Hydroponic System is carried out by UMSS, who, in partnership with the municipality of Sacaba, provide a continuous supply of seeds to local farmers.

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MORE INFO



Impacts and Results

Collection and participatory recovery of 36 varieties of native potatoes and 19 morphotypes of mashua in Colombia, and 56 varieties of native potatoes, 3 of ulluco, 2 of oca, and 2 of mashua in Bolivia.

48 workshops and 66 field days on Integrated Crop Management, conservation and characterization of native potatoes, and social, organizational, and business strengthening.

Establishment of 5 nuclei for conservation and participatory research (NIP) in Colombia for the agromorphological characterization of the collected materials and

evaluation of integrated strategies.

Production of high-quality and certified seed through in vitro tissue culture and the Autotrophic Hydroponic System (SAH).

Creation of a Territorial Innovation System for the production and commercialization of native potatoes and certified seed.

Active participation of women (808) in the development of tasks, commitments, and activities framed within the project.

De novo assembly of the *Tropaeolum tuberosum* genome.



30
Native potatoes varieties characterized



1790
Trained people



20 %
Fewer applications of agrochemicals



40 %
Better yield of native potatoes crops



250
Families benefiting directly



19
Beneficiary students



66
Field days



55
Native potato varieties introduced in vitro

Main Donors



Organizations

