FONTAGROTECH

Technological innovation in Andean cacao

COLOMBIA, PERU, CHILE

Webstory

Technological solution

This project seeks to promote improvements in the quality of the cocoa bean, bioremediation to reduce the presence of cadmium in cacao beans, the identification of cultures of microorganisms that initiate the fermentation processes that improve the sensory quality and flavonoid extracts of cocoa as nutritional supplements.

Technological description

This project seeks to implement development and technological innovation for the cocoa chain, in order to generate an improvement in the standards of cocoa bean quality at the level to achieve access to new markets, higher income, more technology, and improvements in the producer's quality of life

Impacts and results

The characterization of several genetic materials was achieved in 3 areas of Colombia and Peru, where materials with good performance and different characteristics in terms of flavor and aroma were found, this being a commercial plus. In the same way, the generation of the geographic information system was completed, which describes in detail the territory, composition, and location of the participating farms during the project for both countries. At the postharvest level, it was possible to validate an ecological prototype for the fermentation stage, which has a practical, functional, and economical system, which is ideal for small productions. This prototype was complemented with the use of previously isolated microorganisms, which brought improvements in the fermentation process, making it necessary to replicate more processes with these components in the field. Finally, the cocoa chain was strengthened through the standardization and chemical evaluation of an encapsulated product rich in flavonoids, which can be brought to the market as a nutritional supplement.

2700
Producers benefited

1000
Female producers trained

25
Appropriation of knowledge

10
Differentiated quality materials

6
Intervened areas

2
collection of microorganisms present in cocoa fermentation

5
Agtech

3
Training of human talent

MAIN DONORS

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