

Strengthening capacities for the prevention and management of Fusarium wilt in Latin America and the Caribbean

This project promotes scenarios for exchange, training and strengthening between different actors of the Musaceae production systems in the region.

Colombia / Costa Rica / Dominican Republic / Ecuador / Nicaragua / Panama / Bolivia / Paraguay / Peru



+4872
Number of people trained



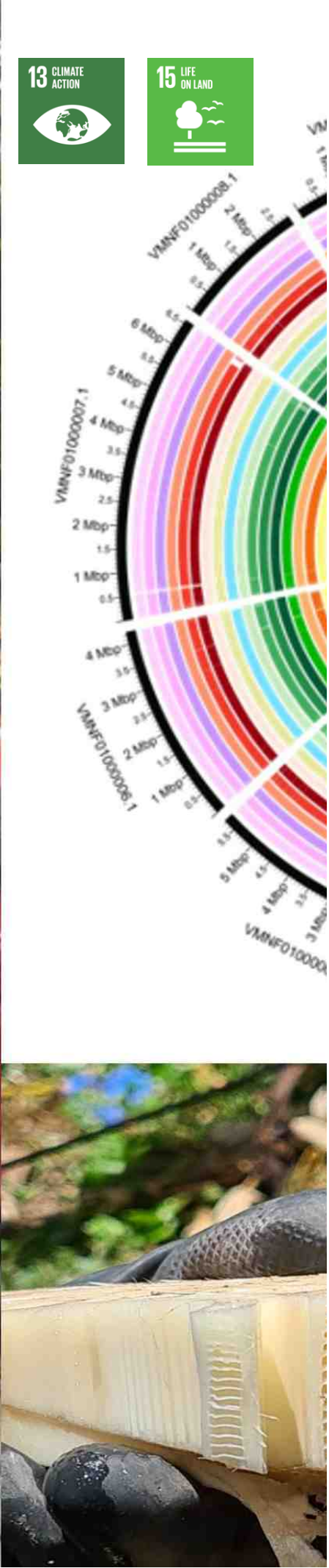
+48
Training workshop



+2
Published articles



+6
Videos



Regional dialogue, the main tool to face the threat of Foc R4T in LAC

The implemented initiative

The presence of Foc R4T in LAC generates immediate risks for the banana industry in all musaceae-producing countries in the region. Given the complexity of the problem, the project works from four components:

- Component 1: Standardize and validate the diagnostic methodology for Foc R4T identification
- Component 2: Evaluate biosafety practices and soil

management with emphasis on biological control for the Fusarium supression.

- Component 3: Evaluate promising materials for their resistance to Foc R4T.
- Component 4: Manage and transfer knowledge and technologies for the prevention, containment and management of Fusarium, especially Foc R4T.

Regional Cooperation

The technological solution

Work is being done on the standardization of the Foc R4T diagnostic protocols for the INIAs and project partners, based on new methodologies that allow detection in complex samples: water and soil. Progress is being made in the validation of technologies for the prevention and management of the disease through the evaluation of disinfectants, the development of unified and validated biosafety protocols for small banana and plantain producers, and the evaluation of biological products (Thichoderma spp. and Bacillus subtilis). In

addition, as a medium-term strategy, progress has been made successfully in the development of protocols for the safe introduction of Musa spp germplasm to Colombia that will serve as a model for other countries. Through this protocol, banana materials from CIRAD (France) and Embrapa (Brazil) have been introduced due to their resistance to Foc R4T. The set of technological solutions will make it possible to manage the disease in LAC in a more sustainable, resilient and intelligent way.

Results

Protocols for the detection of Foc R4T were standardized in the INIAs attached to the project, controls were delivered to them for the validation of their internal protocols and there are personnel trained in the methodologies. The biosafety baseline was determined in the 6 countries and progress is being made in the construction of a biosafety model for small producers. In Colombia, promising results were found in biological products for the control of the pathogen based on Trichoderma spp. and B. subtilis. Four

genotypes with promising characteristics due to their resistance to Foc R4T from the CIRAD breeding program were introduced to Colombia: Ruby, CIRAD 924, 931, 938 and 52 Embrapa banana genotypes, among improved diploids and tetraploids for their integration into the breeding program. Musaceae genetic improvement. Susceptibility of Colombian Creole plantains was found under greenhouse conditions and with high concentration of inoculum.

MÁS INFO



Main donors



Participating Organizations

