

Epidemiological surveillance of *Ralstonia solanacearum*, causal agent of bacterial wilt of solanaceous crops, in the South-West Indian Ocean islands and Eastern Africa, diversity and genetic structure of populations

Analyze the genetic diversity of *R. solanacearum* in South-West Indian Ocean (SWIO) islands and Eastern Africa. Characterize the evolutionary forces that shape populations of *R. solanacearum* in these geographic areas. Evaluate genetic resources for resistance to bacterial wilt (mainly for potato). Validate molecular diagnostic tools available or under development. And, set-up an epidemiological surveillance network involving international research and education institutions, professional actors in the agricultural world, and a start-up.

ACTIONS

Field surveys in each country (collection of populations). Molecular characterization of strains. Genetic structure analysis of populations at different spatial and temporal scales. Evaluation of genetic resources for resistance to bacterial wilt. Development and validation of diagnostic tools. And, organization of kick-off and closing meetings and training sessions for knowledge sharing and capacity building both on *R. solanacearum* and the technologies.

RESULTATS

Complete overview of epidemiological situation of *R. solanacearum* in the SWIO islands and Eastern Africa. Identification of the migration routes of *R. solanacearum*. Identification of bacterial wilt resistance sources. Development and adaptation of new effective and reliable diagnostic tools for *R. solanacearum*. New epidemiosurveillance network. And, strengthening cooperation between Labex Agro Units, ANSES, CGIARs, SWIO institutions.

Responsable :

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