

## **Insect-borne prokaryote-associated diseases in tropical and subtropical perennial crops (TROPICSAFE): improving the production of citrus, grapevine and coconut palms**

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The project addresses insect-borne prokaryote-associated diseases of palm, citrus and grapevine in tropical and subtropical areas seriously affecting the trade and import of agricultural products and materials worldwide. These diseases are due to the presence of ‘*Candidatus Phytoplasma*’ associated with “lethal yellowing” in palms and “yellows” in grapevine, and ‘*Ca. Liberibacter*’ associated with “huanglongbing” in citrus. Their negative impact on agriculture may be worsened as a result of climate change. The management of these diseases is exploited in Africa (Ghana, South Africa and Mozambique), the Americas (Mexico, Chile, Guadalupe, Jamaica, and Cuba), and Europe in selected areas where the prevalence of these diseases is severe giving rise to social and economic threats, affecting local agriculture and export of products. Knowledge and technologies available for detection and identification of these pathogens and new ones implemented by the project will be applied in the studied regions for epidemiological studies aimed at filling knowledge gaps. Integrated pest management strategies based also on innovative diagnostic and on exploited prevention tools such as reduced insecticide treatments, and improved resistant germplasm are applied and pest risk assessment schemes developed. The solutions that are under testing are evaluated to assess the economic and social impact of these diseases, and their distributive effects on the rural communities in the target countries. The 22 partners from 12 countries are collaborating with local plant protection organizations, farmers and producers who are actively participating in training and practical application of the developed tools and schemes for the exploitation of the project outcome and results.