## The INTERREG-DEVAG project: a regional network for the development of agroecological cropping systems for horticultural crops in the Caribbean.

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## • INTERREG CARAÏBES

organizational and socio-

economical environment

In our Caribbean islands, increasing local food production and reducing the negative impact of agriculture is of great concern, especially regarding the most recent food crisis and the rising costs of imported food products and agricultural inputs. In this context, horticultural crops are the main target of the social demand to get access to safe, healthy and environmentally friendly products. Furthermore, horticultural products are an important source of income for small farmers. But currently these crops are still requiring highly intensive chemical inputs (fertilizers, pesticides) due to strong biotic (bacteria, viruses, insects, weeds...) and abiotic constraints (heat, humidity). It has become necessary to consider a radical change in production methods to move towards environmentally friendly systems and offering healthy products to local people, while valorizing biological resources already present in these fragile ecosystems but rich because of their high biodiversity. The objectives of the DEVAG project are (i) to develop scientific databases to accelerate the development of agro-ecological and organic horticultural productions and (ii) to create a regional network dedicated to the development of agroecology for fruits and vegetables in the Caribbean. To do so, research activities are focused on finding agroecological methods to manage pests, diseases and weeds which represent the main cause of loss of productivity and of pesticides use. Nevertheless, in order to built integrated cropping systems adoptable in our environments, it also includes researches on (i) substitution of chemical fertilizers by local organic resources, (ii) genetic plant material adapted to low-input systems, (iii) association with animals and (iv) and a socio-economical approach. These researches are conducted in permanent connection with farmers and agricultural development agents who will benefit directly by participating in field experiments and technical schools.

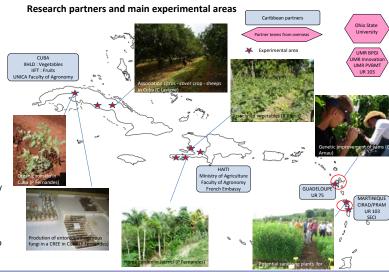


Figure 1: Context, genesis and study cases running in the DEVAG project (oct 2009 - oct 2013)

**DEVAG** context

dentification of

constraints,

exchanges of know-how and knowledge

greenhouses experiments,

General contex

Main

Underdevelopment of agroecological and organic farms despite an increasing demand from consumers for safe and environmentally friendly horticultural products.

Lack of recommended agroecological practices adapted to local conditions and constraints

Weakness of links between research, Inadequate institutional,

extension and production to stimulate

the emergence of adoptable innovation

Main production brakes Main brakes at Identifying and of targeted crops: institutional and valorizing existing tomato, yam, orchards organizational knowledge levels Main brakes at farm Access and/or cost Pests, diseases of imported inputs Selection of Management of Substitution of Traditional genotypes for: targets by chemical fertilizers knowledge from -Resistance to introduction of: by organic local home gardens targets service plants -Adaptation to low - biological input systems and products organic fertilization composts and - animals animal residues for Bemisia tabacii, Helicoverpa zeae Ralstonia Cuba and viruses for yam 3 Technical schools from the 3 other island mixing farmers, extensionists and Contributing to agroecological (AE) and researchers efficient cropping systems







Improvement of plant health Improvement of soil health





Improvement of

AE farmers income



Better technical support at farmers level





Increasing interest of conventional farmers for these AE systems

vailable soon (jan 2011)