



Highlights:

January:

An article by Elisa Javar published in a scientific journal.

February:

F. Bonnot on assignment in Guadeloupe.

5th expenditure report submitted.

April:

International plant Health Seminar organized by INISAV.

C. Abadie on assignment in Cuba.

May:

Seminar on Fusarium musa and development of diagnosis methods in Port of Spain.

4th Coordination Meeting.

Receipt of new Cabaré memorabilia.

Other information:

Experimental plots planted.

Arrivals and departures

We've been in the news!

1st half 2014:

The New Year started with a bang. Is it already time to take stock of the events that occurred during the first half of 2014? A new Recruit in Guadeloupe, an assignment in Cuba, a seminar ... these are some of the events that took place since the beginning of the year, but the main event was the project's 4th coordination meeting in the Dominican Republic.

We hope you enjoy reading this newsletter.

Cabaré's first scientific publication.

By Elisa Javar-Higginson, Isabelle Acina-Mambole, José Efraín González, Caridad Font, Gloria González, Ana Lidia Echemendía, Emmanuelle Muller & Pierre-Yves Teycheney. "Occurrence, prevalence and molecular diversity of banana streak viruses in Cuba", Eur J Plant Pathol (2014) 138:157-166. DOI 10.1007/s10658-013-0319-z.

This article presents some of the results of the PhD thesis of Elisa Javar-Higginson obtained during the Cabaré project. It is the project's first scientific publication. E. Javar-Higginson compiled an inventory of the molecular diversity of BSV (banana streak virus) species on dessert banana in Cuba, based on sampling carried on the island's banana production. Her work shows that BSOLV, BSGFV, BSMIV and BSVNV species are present on dessert banana in Cuba, but their prevalence is low. However, the Yangambi Km5 variety had a high prevalence of species BSMYV, which likely results from the use of vitro plantlets of this variety from infected plant material. This work provides important data on epidemiology and indicated a low transmission of BSV in Cuba by their vectors, certain cochineal species.

Elisa Javar presented her pre-defense on July 3 in the presence of her thesis committee and external reviewers. This first presentation aims to initiate a discussion on the topics covered in the thesis through the various questions and criticisms raised by those present. At the end of this thesis presentation, the jury gives its consent or not to present the defense based on the work done and results achieved. Her final defense is scheduled for December!

François Bonnot on assignment in Guadeloupe.

François Bonnot, a researcher at CIRAD Montpellier, travelled to Guadeloupe from 19 February to 5 March to visit the Neufchâteau site to provide support for Clara Landry's thesis.

During his stay, they worked on the epidemiological model of black Sigatoka development at the plant level and at the regional level (development of procedures for estimating the model parameters using the C++ code).

Accompanied by C. Abadie, they also went to a seminar at LAMIA (Department of Mathematics and Computer Application) at the University of Antilles-Guyane. It was also an opportunity to visit the C3I (Common Supercomputing Centre) and meet R. Pasquier and M. Pouillet, specialists on the calculator used by Clara Landry for her thesis.

5th expenditure report submitted.

European Project financing requires expenditure reports every 6 months in order to receive the grant. Each expenditure report requires a lot of work and to meet the deadlines it is important to provide a steady and daily effort throughout the project. The CIRAD Cabaré team rose to the challenge and delivered the 5th expenditure report at the end of February.

INISAV International Plant Health Seminar.

The INISAV organized its 7th International Seminar on Plant Health in collaboration with the National Center for Plant Health (CNSV), from 7 to 11 April 2014. This event brought together 120 people from twenty countries.

This seminar addressed the specific issue of agricultural systems sustainability. Scientific and technical approaches were used to encourage exchange of ideas between researchers, specialists, teachers, students, farmers and entrepreneurs in the field of plant health. The seminar organized round tables, workshops and conferences.

Catherine Abadie presented a summary of scientific and technical work carried out under the Cabaré project. Observations in Cuba and the Dominican Republic on resistant hybrids have helped improve understanding of environmental (climatic, agronomic, soil) factors on the severity of black Sigatoka on banana hybrids. Initial results show in that the Dominican Republic, the decrease in the level of resistance of the FHIA21 hybrid may be explained by rainfall, cropping practices (plant density, irrigation, weed control) and edaphic factors (levels of magnesium, phosphorus or nitrogen in the soil).

Javas E. Higginson (INISAV) presented the risk of spread of BSV to Cuba linked to its molecular diversity.

Luis Perez Vicente (INISAV) also presented his findings on the potential impact of climate change on the spread of black Sigatoka in banana and plantain in Cuba.



The seminar was attended by Laurent Fabius, French Minister of Foreign Affairs and International Development.



C. Abadie on assignment in Cuba.

Following this seminar, Catherine Abadie continued her assignment in Cuba from 12 to 17 April 2014. She first visited INIVIT for two days to provide technical support to the Cuban project partners to establish experimental tests (BSV, fertilization and hybrid planting).



Lilian Morales of INIVIT checking the the CIRAD 916 plant variety.



Measuring plantations on the experimental plots.

She then visited the INISAV infrastructure including laboratories. At the end of the assignment, an important meeting to further cooperation between Guadeloupe and Cuba took place with representatives of MINCEX (Ministry of Foreign Affairs) and MINAGRI (Ministry of Agriculture) to discuss a new project between CIRAD and INISAV in the framework of the Interreg program V (2015-2020). This project would include the optimization of hybrid banana varieties tolerant to diseases and in particular the spatial management of these varieties for a better control of black

Sigatoka. This integrative project associates genetics, epidemiology and modeling, with work carried out jointly by the INISAV and CIRAD.

Seminar on Fusarium musa and development of diagnosis methods

From April 28 to May 8 2014, a regional seminar organized by FAO and CARDI on the prevention and diagnosis of race 4 tropical on bananas and plantains was held in Port of Spain in Trinidad and Tobago.

Luis Perez Vicente (INISAV), Fusarium specialist and Cabaré project coordinator in Cuba was one of three seminar trainers. He presented the epidemiological situation of race 4 type Tropical Fusarium as well as its program of prevention. In the Caribbean it is not currently present, but to anticipate the possible contamination of Caribbean soil, this seminar was followed, from May 5 to 8, by training in diagnosing this disease. Yolande Chilin-Charles (CIRAD Guadeloupe), involved in the Cabaré project, completed the training. A dozen people from six Caribbean countries benefited from this training course. This will allow greater responsiveness in the event of contamination of the Caribbean to avoid uncontrolled spread of the disease, as was the case for black Sigatoka.

The presence of Cabaré researchers at this seminar was very important for the continuation of the project. Indeed, one ambition is to continue on a new project to fight against emerging banana diseases including Fusarium, involving a network of sectors in the fight against the expansion of multiple banana diseases.

4th coordination meeting

The fourth Cabaré coordination meeting was held from May 13 to 15, 2014 in Santo Domingo, Dominican Republic.

Two days were spent meeting on the premises of the IDIAF and one day in the field.

The first day was devoted to a review of project activities. Project manager Sandra Kermorgant and CIRAD Antilles-Guyane representative Evelyne Zunic presented partners with mid-project financial and budgetary reports and recent Communication measures (website, communication tools, newsletter) and reminded participants of the publicity requirements of projects financed by European funds.



Partners meeting at the IDIAF during the first two days of the meeting.

The Cabaré project newsletter



At the French Embassy in the Dominican Republic, the partners met Ms Blandine Kreiss, French Ambassador and Alain Aumis, Counsellor for Cooperation and Culture. National project coordinators gave a presentation of each project and the role of their respective institutes. Pierre-Yves Teycheney and Catherine Abadie, project coordinators, presented the main objectives and the role played by the CIRAD. Reina Teresa Martinez, coordinator in the Dominican Republic, presented the work of IDIAF. Finally Luis Perez Vicente, Cuban coordinator, presented the work carried out in Cuba by the three Cuban institutes, IBP, INISAV and INIVIT.



Meeting the Ambassador Blandine Kreiss at the French Embassy in the Dominican Republic.

The meeting ended with a field trip to La Vega province where CIRAD916 and CIRAD918 hybrids were planted in a test similar to the one performed in Cuba (see below) to assess resistance to black Sigatoka. As in Cuba, the tests are being conducted in different climatic, agronomic and soil environments in La Vega (wet conditions) and in Montecristi (drier conditions). The visit led to some technical innovations.



The project partners at the La Vega experimental plot.

Following the visit to La Vega, Catherine Abadie stayed there one more day to continue epidemiological monitoring

of black Sigatoka on FHIA 21, accompanied by Luis Mining (IDIAF).

Before her return to Point-a-Pitre on May 17, C. Abadie met Modesto Reyes, an agronomist at the Autonomous University of Santo Domingo (UASD), which had made contact with Cabaré to discuss a future cooperation with UASD. 15 months before the end of the Cabaré project, this coordination meeting was an opportunity to discuss the follow-up to the project and wider cooperation between partners. The creation of a Caribbean surveillance network on emerging diseases of cultivated plants, for the purpose of disease control, was welcomed by all.

The new Cabaré collection is here!



A victim of their own success, the first batch of Cabaré memorabilia was distributed our various institutional and operational partners.

New memorabilia has been created to help promote the project. The acclaimed T-shirt and cap are unchanged but the bag and USB memory stick have been improved, and now comes with a neck strap printed with logos. To complete this devastatingly handsome collection, a magnet has been designed for refrigerators and other equipment in laboratories.

Arrivals and departures:

Arrival of Guillaume Fort

Guillaume Fort joined the CIRAD Virology team, a project partner in Guadeloupe, on May 2. He signed a VSC (Volunteer Civic Service) for a period of one year and renewable thereafter.

He holds a Masters Degree in Tropical Plant Biotechnology from the University of Montpellier 2. During his degree, he had the opportunity to do an internship with CIRAD Montpellier.

His tasks will focus on assessing the health status of the Guadeloupe banana vis-à-vis BSV and monitoring field



experiments designed to evaluate BSV risk associated with planting of inter-specific banana varieties.



Departure of Ramon Jimenez

Ramon Jimenez, agronomist with IDIAF in the Dominican Republic, involved in the project since the start, retired May 17, 2014. He finished his career with our 4th coordination meeting.

Experimental plots planted.

The project is planning field trials with our Cuban and Dominican partners. There are three experiments: one on the resistance of CIRAD916 and CIRAD918 hybrid varieties, the second on the effect of fertilization on black Sigatoka and the last on the impact of BSV on plant performance. The first two trials began in April in the provinces of Artemisa in Cuba and La Vega in the Dominican Republic. The BSV test is scheduled for August. These tests will yield their first results in the coming months.

We've been in the news!

During the 4th project coordination meeting, we published several news articles.

- The first article was published in Hoy, the Dominican daily newspaper, at the end of the meeting.
- Another article was published May 31, 2014 in France-Antilles.
- Another in Le Courrier de Guadeloupe, a weekly magazine for the week of June 6 to 16, 2014.
- A fourth article was published in Nouvelles Semaines.

Each article gave details of the meeting and the project and its future progress.

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