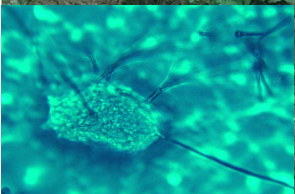


SC2 Coordinators Day
Cluster: Plant Protection

Microbial uptakes for sustainable management of major banana pests and diseases (Acr. MUSA, n. 727624)

Aurelio Ciancio, IPSP CNR, Bari, IT
Coordinator

22/06/2017



Description

Study of **endophytes and biocontrol agents (EBCAs)** vs nematodes, BW and Panama disease on **banana and enset**

Main objectives

- **Identify/select** EBCAs for IPM and bio-management
- Produce **knowledge** on pests / EBCAs in **Canary Islands, Caribbean, SSA**
 - Develop and apply **detection and preventive** measures
 - Identify / test suitable banana **germplasm** sources
 - Determine genes and pathways in **response** to pests and pathogens
 - Set up procedures for EBCAs **production and use** by stakeholders
 - Improve/sustain yields through selected EBCAs, validated in **field assays**
 - Identify suitable **field/crop indicators** and parameters, at regional levels
- Overcome socio-cultural barriers affecting adoption of **new farming practices**

What the project will offer?

- **22 deliverables**, including microbial **collections** and data on host range, biology and effectiveness; **gene** expression and metagenomic data; large scale **bioformulations** for management; field data on **germplasm** integration and health of propagation material; **validation** reports, sampling **protocols**, market and socio economic **impact data**; **farming schools**, CDEP, web pages etc., **Practice abstracts**, DMP and other reports.

Consortium overview

- 4 EU countries: *CNR, SACOMLab* (IT); *CSIC, UA, Coplaca* (ES); *UNEXE* (UK); *KULeuven* (BE)
- 2 Caribbean: *Earth Univ.* (Costa Rica); *CENSA* (Cuba)
- 3 SSA: *IITA* (Nigeria); *ICIPE, Real IPM* (Kenya); *SARI* (Ethiopia)

Field work = *CSIC, UA, IITA, ICIPE, Real IPM, SARI, CENSA, Coplaca*

Lab work = *CNR, SACOMLab, CSIC, UA, KULeuven, UNEXE*

Germplasm, -omics: *KULeuven, UNEXE, CNR, UA, CSIC*

Diss_Comm_Expl = all

Important dates

- Start: June 1^o, 2017
- Tenerife Kick-off meeting Aug. 28, 2017

Communication and dissemination strategy

- Results : EBCAs and germplasm for more sustainable farming practices
- Dissemination/promoted = CDEP (Comm_Diss_Expl_Plan)
- Communication channels = Website, audiovisuals, seminars, workshops, Practical Abstracts (100), social networks (Facebook, ResearchGate etc.), newsletters, blogs ...
 - Liaise with existing initiatives
- EU Project Eureka!Eurostars E!7364 “Poch_art”, coordinated by SACOM LAB;
- UNEXE -> FAO World Banana Forum; IITA is co-leader of upcoming project with the World Banana Forum tentatively called “ Global Programme on Fusarium Wilt of Banana (BananaTR4 / 2018-2023);
- KULEuven -> Bioversity International, a CGIAR initiative
- IITA - CGIAR project BBB (Breeding Better Bananas):
<http://bananabreeding.iita.org/>

Links with other EU projects

- PONTE, on invasive pests/diseases (Coord. IPSP); CRYMCEPT, on germplasm cryopreservation (coord. KU Leuven); COST Action FP1305: *Linking belowground biodiversity and ecosystem function in European forests* (Acr. Biolink, IPSP, CSIC); COST Action 842: *Biological control of pest insects and mites with special reference to Entomophthorales* (UA); KU Leuven COST FA1306: *The quest for tolerant varieties: phenotyping on plant and cellular level.*
- Synergies with complementary projects = possible
- Joint activities, meetings, etc. = Yes, thematic issues
- Potential benefits? Expertise exchange, complementarity with other cropping systems, global food security issues.

Many thanks for your attention !



Kick-off meeting = 28 Aug. – 1 Sept., Tenerife, ES

Organization = Coplaca, <http://coplaca.es/>