



Regional workshop

Strengthening capacities for surveillance, prevention and management of *Fusarium* wilt of banana, caused by tropical race 4 of the fungus *Fusarium oxysporum* f.sp. *cubense*

17-19 February 2020
Panama City, Panama



Background

Bananas represent an important commodity to both food security and rural sector of Latin America and the Caribbean (LAC) and constitute the most important tropical fruit for the region, displaying an annual production volume of approximately 30 million tonnes. At a per capita consumption of 55 kg of bananas and tropical fruits per annum, LAC also ranks as one of the major consumers of these fruits globally¹.

LAC has firmly established itself as the world's primary supplier of bananas. According to Alterndorf², over 2016-2018, the total exports reached an annual average of 13 million tonnes, representing 80% of world banana shipments. Trade statistics reported an average export revenue of USD 5.6 billion per year for the banana industry in LAC over the same period.

Ecuador ranks firmly as the world's largest exporter of bananas, accounting for an estimated share of 36 percent of world exports over 2016-2018, with a total shipment reached a record high of 6.6 million tonnes in 2018 (Alterndorf², page 74). Guatemala ranked as the second leading exporter of bananas in the world between 2016 and 2018, with an average annual export volume of 2.3 million tonnes. Bananas are Guatemala's leading agricultural export product, generating an annual average revenue of USD 770 million over the period 2016-2018 and accounting for 14% of the value of the country's total agricultural export earnings (Alterndorf², page 74). In addition, it should be noted that some 200 000 rural families are reported to be directly involved in, and benefiting from, banana production in Guatemala (Alterndorf², page 76).

Banana exports from Costa Rica averaged 2.2 million tonnes per year between 2016 and 2018, placing the country third among the world's leading suppliers of bananas, ahead of the Philippines (Alterndorf², page 74). While Peru plays a comparatively small role in banana

¹ OECD-FAO Agricultural Outlook 2019-2028 – Special focus: Latin America. Page 89-92. Available online in: https://www.oecd-ilibrary.org/docserver/agr_outlook-2019-en.pdf?expires=1572179662&id=id&accname=guest&checksum=3EAAD78DD10966549ADDAC1968C2057D

² Altendorf, S. (2019). Bananas and major tropical fruits in Latin America and the Caribbean. The significance of the region to world supply. Available online in: http://www.fao.org/fileadmin/templates/est/COMM_MARKETS_MONITORING/Tropical_Fruits/Documents/Food_Outlook_May_2019_Tropical_Fruits_Article_.pdf. This article represented an introductory background note to the medium-term outlook for bananas and major tropical fruits in Latin America and the Caribbean (published in July 2019 as OECD-FAO Agricultural Outlook 2019-2028).

exports, supplying an average of some 200 000 tonnes per year over the 2016-2018 period, its role in world supply is nevertheless noteworthy, owing to its position as a key exporter of organic bananas. Given the higher unit values of organic bananas, Peru's revenues from banana exports amounted to an annual average of some USD 160 million over 2016-2018 (Alterndorf², page 75). In addition, Brazil and Colombia rank among the world's largest bananas producing countries³.

Characteristics of industrialized banana production systems and lack of biosecurity farm schemes in small and large banana producers pose great threats on faced of the increasing prevalence and outbreaks occurrence of plant pests. In particular, presence of the Fusarium Wilt Tropical Race 4 fungus (TR4) in banana crops, – until a few months considered as only affecting some countries of Asia, the Middle East and Africa – , constitutes a high phytosanitary risk for the production of bananas, plantain and other Musa species in LAC, with the capacity to provoke a socio-economic crisis of inestimable dimensions in the region. Regional Declaration on Fusarium TR4 signed by agricultural authorities of LAC countries during a high-level meeting convened by the Ecuadorian Minister of Agriculture and Livestock, was also endorsed by Food And Agriculture Organization of United Nations (FAO), World Banana Forum (WBF)⁴, Inter-American Institute for Cooperation on Agriculture (IICA) and other international organisms. The declaration calls for supporting the necessary phytosanitary measures to prevent the spread of TR4 and increasing collaboration amongst the countries.

On August 8, 2019, the Colombian Institute of Agriculture (ICA) officially announced that TR4 has been found on six farms in La Guajira, the North East of the country. Subsequently, the ICA aims for the declaration of a National Emergency, which is a prerequisite to implement all necessary measures to prevent a further spread of the fungus.

Tropical race 4 (Foc TR4) is currently found in 18 countries⁵ belonging to different continents (Asia, Oceania, Africa, and more recently America), with serious repercussions on small producers, workers and the banana value chain. Fusarium wilt affects mostly clones of the Cavendish group, which is widely found in plantations and markets today, but other important varieties for food security and income generation of small producers are also susceptible, such as bananas (AAB), Bluggoe type cooking bananas (ABB), Gros Michel (AAA), Prata (AAB) and Manzano (AAB).

After the first record of TR4 in America, different countries and sub-regional bodies, as Colombia, Ecuador, the Organization International Regional for Agricultural Health (OIRSA) and

³ Jegede, A. (2019). Top 10 largest banana producing countries in the world. Available online in: <http://www.thedailyrecords.com/2018-2019-2020-2021/world-famous-top-10-list/world/largest-banana-producing-countries-world-statistics-states/6870/>

⁴ To learn more about the World Banana Forum facilitated by the Food and Agriculture Organization of the United Nations (FAO), please visit: <http://www.fao.org/world-banana-forum/es/>. To learn more about the Global Network on TR4, please visit: <http://www.fao.org/world-banana-forum/fusariumr4t/tr4-global-network/en/>

⁵ Tropical race 4. Musapedia. 2019. Available online in: <http://www.promusa.org/Tropical+race+4+-+TR4#Distribution>

the Caribbean Plant Health Directors' Forum (CPHDF), request FAO for reinforcing regional coordination to achieve uniform application of phytosanitary measures and improving management and surveillance systems for this pest. In response to the request, FAO approved the Technical Cooperation Programme (TCP) "Strengthening regional capacities for surveillance, prevention and management of Fusarium wilt of banana, caused by the Tropical race 4 of the fungus *Fusarium oxysporum* f.sp. *cubense* (Foc TR4)", considering the emergency magnitude. The regional TCP will focus on achieving the following outputs: *i) Regional action plan for the prevention, surveillance and possible response to Foc TR4, formulated; ii) National action plans for the response, surveillance and prevention of Foc TR4, developed and adopted in at least five LAC countries and iii) Enhanced capacities to contribute to the prevention, response and surveillance of Foc TR4 as essential elements for the appropriation and sustainability of all these actions.*

The Regional TCP was approved by FAO in October 2019. As the preparation for its implementation, the regional inception workshop of the project is scheduled to be held in Panama City from 17-19 February 2020.

Objectives

The major objective of the inception workshop is to build solid foundation for the effective implementation of the TCP through:

- Officially inform the concept of the TCP, its logical framework, the expected outcomes and outputs, as well as share relevant information on the current situation of Foc TR4.
- Align efforts among all involved countries and partners, discuss and concur on implementation arrangement, including coordination mechanisms, roles and responsibilities to ensure synergies and avoid overlapping of activities.
- Develop TCP work plan.
- Discuss the main approaches about regional action plan for the prevention, surveillance and possible response to Foc TR4.
- Design a clear roadmap for the follow-up to the workshop.

Expected outputs

- Officially informed the TCP concept and its expected deliverables to all parties involved in it.
- Agreed implementation arrangement, coordination mechanisms, roles and responsibilities of identified key participants within the TCP and with external initiatives with common objectives.
- Agreed the TCP work plan.
- Agreed bases and main elements of the regional action plan for the prevention, surveillance and possible response to Foc TR4.
- Established the roadmap for the follow-up to the workshop.

Participants

- Representatives of the official sector of Plant Protection of the LAC countries: Colombia, Ecuador, Panama, Guatemala, Nicaragua, Dominican Republic, Dominica, Saint Lucie, Jamaica, Surinam, Trinidad & Tobago, Brazil, Mexico, Cuba, Costa Rica, Peru, El Salvador, Paraguay and Venezuela.
- Representatives of the Regional Plant Protection Organizations (RPPOs): OIRSA, Andean Community (CAN), Caribbean Agricultural Health and Food Safety Agency (CAHFSA), Comité Regional de Sanidad Vegetal del Cono Sur (COSAVE).
- Representatives of international institutions: IICA, WBF, Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), Jamaica Banana Board (JBB), Caribbean Agricultural Research and Development Institute (CARDI) and CPHDF.
- FAO officers and representants.
- Government authorities of hosting country.
- Invited international and regional experts.
- Representatives from private sector private or public-private sector linked to the banana production chain.

Venue

The inception workshop will be held in Panama City, Panama, in the Radisson Panama Canal Hotel.

Working language

Spanish will be used as main working language of the inception workshop, but there will be simultaneous translation to English.

Agenda

DAY 1- Monday, February 17		
Time	Action	Responsible
08:00 – 09:00	Registration	
09:00 – 09:40	Opening the Workshop <ul style="list-style-type: none"> Opening address by the representative of the Ministry of Agriculture of the hosting country Welcome Remarks by FAO representative of the hosting country Presentation of the International Year of Plant Health 2020 Introduction of participants Introduction of the inception workshop – objectives and expected results 	Government and FAO / Hosting country Raixa Llauger – Agriculture Officer FAO Dr. Esther L. Peralta –FAO Consultant
09:40 – 10:00	Introduction to the project <ul style="list-style-type: none"> Overview and key components (budget, duration, participating countries etc.) Discussion on the project framework and implementation 	Dr. Esther L. Peralta –FAO Consultant
10:00 – 10:30	Coffee break and group photo	
10:30 – 12:20	Technical presentations <ul style="list-style-type: none"> Foc TR4 – Need to integrate prevention / exclusion, eradication / confinement and disease containment / management. Perspectives of regional scientific research for supporting Foc TR4 management. New opportunities for field confirmation of Fusarium wilt of banana, TR4. Foc TR4 in Colombia – Current situation, challenges and lessons learnt. Interdisciplinary collaboration and preparedness are critical in prevention of Fusarium wilt disease in bananas. 	Dr. Luis Pérez Vicente (INISAV) Dr. Miguel A. Dita (Alliance Bioversity International-CIAT) Dr. Gert Kema (WUR) Dr. Jorge Palacino (ICA) Dr. Fazil Dusunceli – Agriculture Officer, FAO (AGPM)
12:20 – 13:00	Discussion Forum with invited experts	Dr. Carlos Urías (OIRSA)
13:00 – 14:00	Lunch break	
14:00 – 15:50	Country presentations (direct participating countries) – Current situation of response capacity and gaps: prevention, surveillance, diagnosis, biosecurity on farms. <ul style="list-style-type: none"> Ecuador Colombia Panama Guatemala Nicaragua Dominican Republic Dominica 	NPPO Representative

15:50 – 16:10 16:10 – 17:10 17:10 – 18:10 18:10 – 18:30	<ul style="list-style-type: none"> Suriname Saint Lucie Jamaica Trinidad & Tobago 	
	Coffee break	
	Country presentations (invited countries) – Current situation; successful experiences in strengthening response capacity. Cooperation capacity and possible synergies. <ul style="list-style-type: none"> Brazil Costa Rica Cuba Mexico Peru Venezuela Paraguay 	NPPO Representative
	RPPO presentations – Current situation on emergency preparedness and response programs (TR4) <ul style="list-style-type: none"> OIRSA CAHFSA CAN COSAVE 	RPPO representative
	Discussion and closing day 1	Raixa Llauger – Agriculture Officer FAO Dr. Esther L. Peralta –FAO Consultant

DAY 2-Tuesday 18		
Time	Action	Responsible
08:00 – 09:00	Demonstration of the canine binomials activity in the inspection and surveillance of the entry and exit of agricultural products in ports, airports, borders and national mobilization points.	MIDA – OIRSA Panama
09:00 – 09:30	Technical presentations <ul style="list-style-type: none"> Key elements and bases of the Regional Action Plan (RAP). 	Dr. Esther L. Peralta –FAO Consultant
09:30 – 09:40	Work team and their objectives	Dr. Esther L. Peralta –FAO Consultant
09:40 – 10:40	First part of group work – Suggestions on design and planning of TCP activities <ul style="list-style-type: none"> Role and responsibilities of national focal points Regional action plan (RAP): priority elements, pillars, possible outcomes and outputs, execution time,. 	NPPO and RPPO representatives (mixed groups of the different subregions) / Experts / Dr. Esther L. Peralta –FAO Consultant

10:40 – 11:00	<ul style="list-style-type: none"> ▪ National action plans (NAPs): fundamental elements in its content; compliance periods. Simulation exercises. • General aspects of national and subregional workshops. 	
	Coffee break	
11:00 – 13:00	First part of group work (continuation)	NPPO and RPPO representatives (mixed groups of the different subregions) / Experts / Dr. Esther L. Peralta –FAO Consultant
13:00 – 14:00	Lunch break	
14:00 – 15:00	Presentation of the results of the working groups	Representative of each working group
15:00 – 16:30	Second part of group work – Planning of training activities and subregional workshop: <ul style="list-style-type: none"> ▪ National and subregional trainings (modalities, prioritized topics, type of participants) ▪ Country workshops for the analysis of the regional action plan. Other elements to include in the workshops (objectives and expected results) ▪ Stakeholders (list by countries) 	NPPO and RPPO representatives (by subregions : Caribbean; Mesoamerica and South America) /Experts / Dr. Esther L. Peralta –FAO Consultant
16:30 – 17:30	Presentation of the results of the working groups	Representative of each working group
17:30 – 18:00	Discussion and closing day 2	Raixa Llauger – Agriculture Officer FAO Dr. Esther L. Peralta –FAO Consultant

DAY3- Wednesday, February 19		
Time	Action	Responsible
08:30 – 9:00	Presentations <ul style="list-style-type: none"> ▪ Fundamental communication elements in the action plan. ▪ Proposal of TCP work plan. 	Rosana Martín Grillo – FAO Officer Dr. Esther L. Peralta –FAO Consultant
09:00 – 11:00	Third part of group work – Suggestions and modifications <ul style="list-style-type: none"> ▪ Bases of Regional Action Plan (RAP) and National Action Plans (NAPs) ▪ TCP work plan and calendar 	NPPO and RPPO representatives (mixed groups of the different subregions) /Experts / Dr. Esther L. Peralta –FAO Consultant
11:00 – 11:30	Coffee break	
11:30 – 13:00	Presentation of the results of the working groups	Working groups representatives

13:00 – 14:30	Lunch break	
14:30 – 15:30	Plenary session – Summary of suggestions, approval and agreements.	Raixa Llauger – Agriculture Officer FAO Dr. Esther L. Peralta –FAO Consultant
15:30 – 16:00	Synergy with other projects <ul style="list-style-type: none"> ▪ IICA ▪ WBF 	Gabriel Rodríguez – Project Manager Martha Ríos Palencia – Sustainable Production Specialist - FAO
16:00 – 16:30	Coffee break	
16:30 – 17:00	Final Remarks on the TCP <ul style="list-style-type: none"> ▪ Synergies ▪ Monitoring and evaluation 	Raixa Llauger – Agriculture Officer FAO Dr. Esther L. Peralta – FAO Consultant
17:00 – 17:30	Closure of the Workshop <ul style="list-style-type: none"> ▪ Comment and recommendations. ▪ Follow-up actions ▪ Closing 	Raixa Llauger – Agriculture Officer FAO