

Global Programme on Fusarium Wilt Disease of Banana

“We have no bananas today ?”

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The Crop:

- 8th most important crop worldwide
 - 4th in the LDCs
 - the most exported fruit crop
- Annually
 - 17 million tonnes exported
 - value: USD 7 billion
- **400 million people worldwide** depend on it either for food or their livelihoods





The disease: Fusarium wilt (Panama disease)

- Fungal disease
- Soil borne
- No effective eradication



A new race:
Tropical Race 4 (TR4)
affecting Cavendish

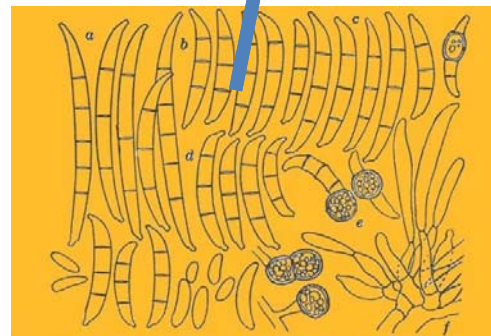
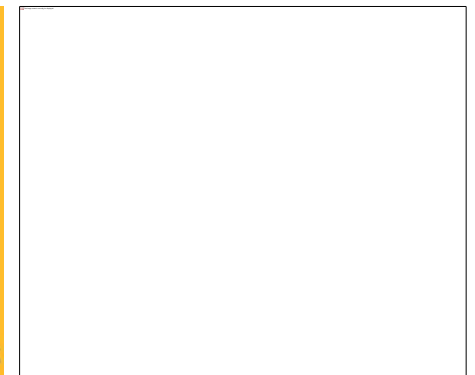


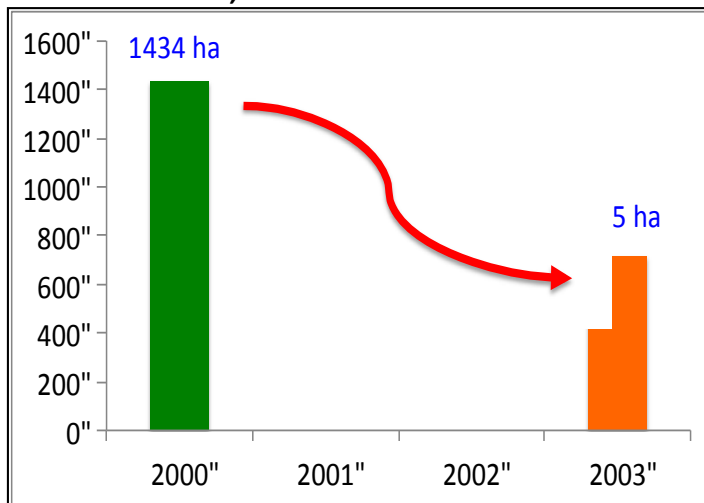
Abb. 37. *Fusarium oxysporum* f. *cubense* Vinger. non. a. Makrokonidien der längeren peritheziellen Entwicklungsstufe; b, c, d. Makrokonidien der gewöhnlichen asexuellen Entwicklungsstufe auf verschiedenen Nährböden; e. Oidomyzozoen; f. Konidienträger



TR4 – Impact:

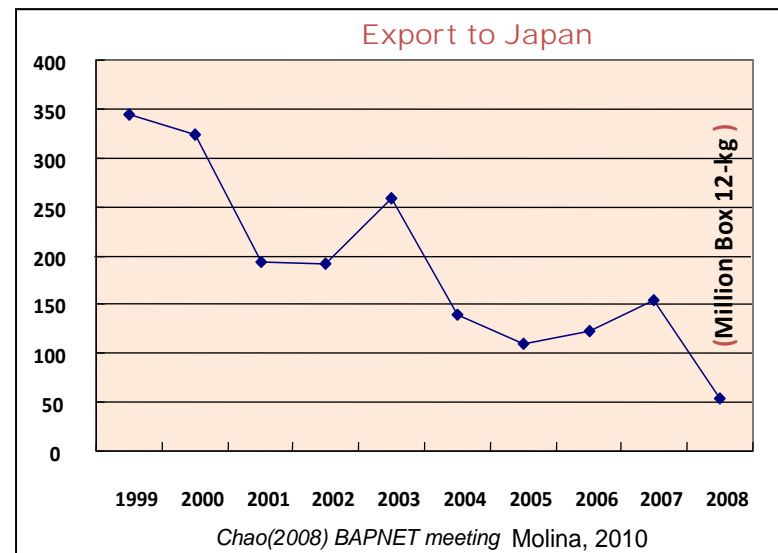
- Race 1: wiped out Gros Michel variety in 1900s
 - Estimated losses: USD 2.1 billion
- TR4: production area in West Sumatra, Indonesia decreased by half
 - Estimated losses: USD 134 million/year
- TR4: exportation of Taiwan province of China to Japan decreased by 85%

Indonesia , West Sumatra



(West Sumatra, Horticulture Processing and Marketing Department, 2005)

Taiwan province of China



Chao(2008) BAPNET meeting Molina, 2010

Threat:



! Problem Area (Race 1)
This area is under attack by Race 1 of Panama disease.

! Problem Area (Tropical Race 4)
This area is under severe attack of the new Tropical Race 4 (TR4) strain of Fusarium.

+ Banana daily diet area
This area is on risk. The farmers here made the banana their living.

Current alarm: Mozambique

3 000 families and neighbourhood





Relevance to FAO?

Goals: Alleviate food insecurity, poverty and improve livelihoods

Strategic Objectives of FAO	Banana and the disease
S01 Eradicate hunger & food insecurity	Banana is a source of food
S02 Increase <u>production</u> sustainably	Can cause total loss on Cavendish
S03 Reduce rural poverty	Banana is source for livelihoods
S04 Sustainable food systems	Global challenge
S05 Increase <u>resilience</u>	New records, new risks expansion



Recent efforts and initiatives:

FAO workshops and initiatives:

- Awareness raising and advocacy
- Caribbean workshop in Trinidad & Tobago
- East Africa workshop in Kenya and Rwanda
- Regional project for Latin / Central America
- Emergency project in Mozambique
- Other requests

The screenshot shows the FAO website interface. At the top, there is a navigation bar with the FAO logo and the text 'Food and Agriculture Organization of the United Nations'. Below this, there are several menu items: 'About FAO', 'In Action', 'Countries', 'Themes', 'Media', 'Publications', 'Statistics', and 'Partnerships'. A search bar is located on the right side of the page. The main content area features a news article titled 'FAO urges countries to step up action against destructive banana disease'. The article includes a sub-headline: 'Following its spread to Africa and the Middle East, Fusarium wilt TR4 increases the risks to livelihoods and banana markets'. There is a photograph of diseased banana plants. The article text states: '14 April 2014, Rome – The Food and Agriculture Organization of the United Nations (FAO) is warning countries to step up monitoring, reporting and prevention of one of the world's most destructive banana diseases, Fusarium wilt, which recently spread from Asia to Africa and the Middle East, and which has the potential to affect countries in Latin America. The TR4 race of the disease, which is also known as Panama disease, is posing a serious threat to production and export of the popular fruit, with serious repercussions for the banana value chain and livelihoods, FAO said in an information brief.' On the right side of the article, there are sections for 'Read' (with a link to 'FAO information note on Fusarium wilt TR4 (English)') and 'Audio' (with a link to 'Interview with FAO plant pathologist Fazil Dusunceli').

World Banana Forum's Task Force consultations:



■ Objectives:

- Encourage global collaboration among interested parties;
 - Ensure dissemination of relevant information on TR4;
 - Ensure that prevention strategies to avoid long distance spread;
 - Support existing initiatives.
- Members: farmer organizations, research institutions, companies, NGOs & governments
- Secretariat: Based at FAO operating at global level
- www.fao.org/wbf



Recent efforts and initiatives:

Other International initiatives

- Bioversity International,
- International and regional networks,
- International Atomic Energy Agency (FAO / IAEA lab)
- Private sector
- Efforts by National Institutions and Universities
- +



Follow up:

A framework to promote

- Dialogue,
- Synergy,
- Collaboration and
- Actions

The challenge



Global programme

- Ongoing efforts
- Internal consultations
- International dialogue and consultations
- Calls for assistance

Actions Needed:

- **Management**
 - Development and deployment of resistant varieties
 - Crop management tools
- **Prevention, preparedness and emergency response**
 - Cooperation & strategy
 - Empowerment of countries



Major thematic areas and objectives:

- Policy and planning support, advocacy, awareness raising,
- Monitoring, surveillance, risk analysis and early warning
- Guidance on legislation and implementation of phytosanitary measures and standards
- Development & deployment of resistant cultivars and IPM tools
- Training and capacity building in countries at risk
- International collaboration and knowledge exchange



Internal Capacities

■ HQ Units:

- AGP - Plant Production and Protection Divisions
- IPPC – International Plant Protection Convention
- FCC - Food Chain Crises Framework
- TCE - Technical Cooperation Department
- EST - Market and Trades Division - IGG on Tropical Fruits and Bananas
- WBF – World Banana Forum
- IAEA – International Atomic Energy Agency
- OPC – Office o Partnerships and Advocacy

• Decentralized Offices:

- Africa: RAF, East Africa, South Africa, Central Africa
- Near East: Cairo, Tunis
- Latin America: Central America, Caribbean
- Asia Pasific: RAP - Bangkok



Partners / Collaborators:

- External Partners
 - International organizations / initiatives
 - International and regional networks
 - Regional Plant Protection Organizations (RPPO)
 - Industry, producer organizations and NGOs
 - Advanced Research Centers, Universities
 - National Institutions+



The way forward:

- Awareness raising activities at all levels,
 - Respond to Emergencies and local requests,
 - Consultation with stakeholders and potential partners,
 - Resource mobilization,
 - Public – Private partnerships and
 - south – south cooperation modalities
 - Implementation
 - Work together
-
- Technical discussion: 8 October 2014; 09.00-11.00; Room D838
 - Technical consultation workshop (9-10 December 2014)

**Work together to improve food security and livelihoods of
400 million people.**

