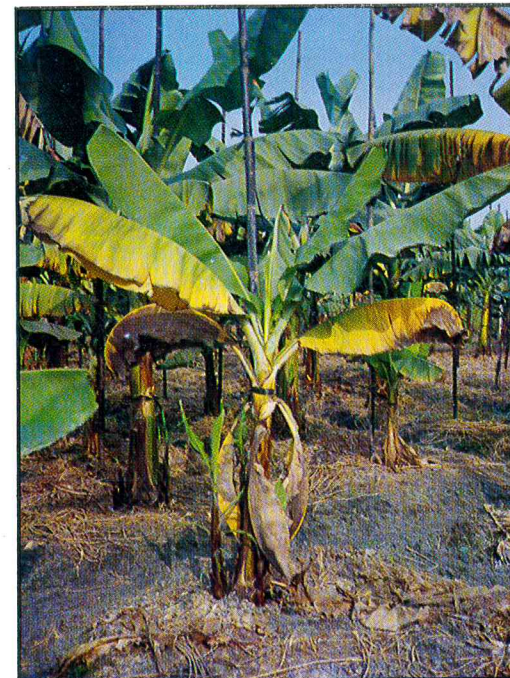


## **PANAMA DISEASE (Fusarium Wilt of Banana)**



Published through the UPLB-PCARRD-DOST Project  
"Adoption of Control Strategies and Rehabilitation of Areas  
Affected by Banana Bunchy Top."



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## PANAMA DISEASE (Fusarium Wilt of Banana)

### I. Introduction

Panama disease or Fusarium wilt is a highly destructive disease affecting the vascular system of banana. The causal organism is a soil-borne fungus, Fusarium oxysporum f. sp. cubense which colonizes and occludes the xylem of susceptible cultivars to cause a terminal wilt. Chemical control measures are not effective against the disease and soil, once infested with the pathogen it can not be planted with susceptible cultivars up to 10 years or more. 'Latundan', 'Senorita' and 'Lakatan' are very susceptible to this pathogen. Recently 'Cavendish' succumbed to the new race (Race 4) of this disease. 'Saba' or 'Cardaba', on the other hand, is a resistant cultivar.

### II. Infection

The fungus enters only through roots and move to the xylem vessels and there it grows and sporulates abundantly. Transport of the spores upward in the transpirational stream facilitates the invasion of the entire vascular system. Blocking of the vascular system by the growth of the fungus causes wilting of the plant.

### III. Symptom

- A. Early symptom is the yellowing, collapse and drying of the older leaves.

- B. The inner leaves exhibit the same symptoms one after the other until eventually all the leaves turn yellow and wilt.

- C. The pseudostem may develop a crack at the base and will remain standing for several weeks until it decays.

- D. Pseudostem and corm cut crosswise will show brown to purple color of the vascular tissue with a reddish tinge extended throughout the pseudostem and the fruit stalk but no symptom is observed on the fruits.

### IV. Control Measure

- A. Plant tolerant banana cultivars e.g. 'Saba' or 'Cardaba'.

- B. Plant/replant only with disease-free planting materials.

- C. Implement sanitation practices on tools, moving equipment and infected materials to prevent spread of the disease.

- D. Removed diseased mat including healthy plants found within a 5 m radius and treat the soil with formaldehyde solution if possible or fallow the soil for one year.

- E. Minimize cultivation to prevent the spread of the disease.

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