

Diseases Caused By Plant Pathogens Which Lessen The Quality Of Several Farm Products After Harvest In The Dominican Republic.

Rosendo Angeles Ramos, MS. Plant pathologist and Bacteriologist, Santo Domingo. D.R.hairo90@hotmail.com.

Cándida Milady Batistàs Marte, MSc. Instituto Dominicano de Investigaciones Agropecuarias y forestales (IDIAF), cbatista@idiaf.gov.do

INTRODUCTION

- **Root and tuber crops:** carbohydrates
- **Fruits and vegetables:** vitamins, minerals., and fibers.
- **Dry or ripe bean, other legumes:** plant proteins

Dominican Republic:

- **Many species of fruits and vegetables** (Inc. Banana and plantain)
- **Root and tuber:** cassava, yam , taro(tanier), potato, and sweet potato.
- **Legumes:** beans and others

- Fungi, straminipila, bacteria, virus: attack before/after harvest.
- Nutritional/commercial value may be diminished.

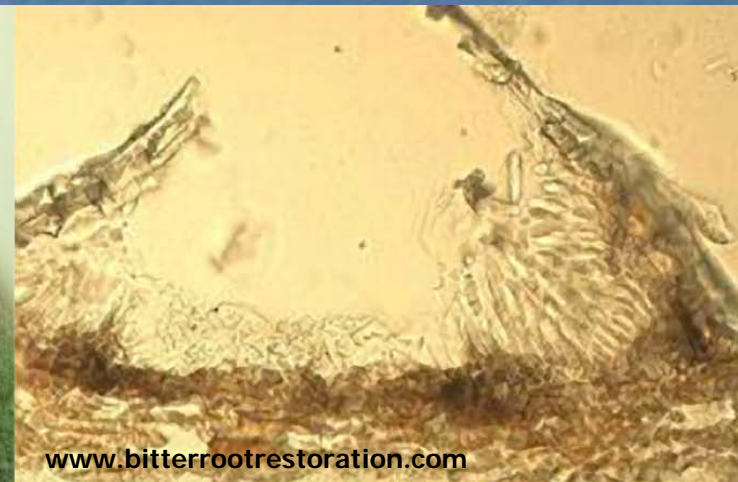
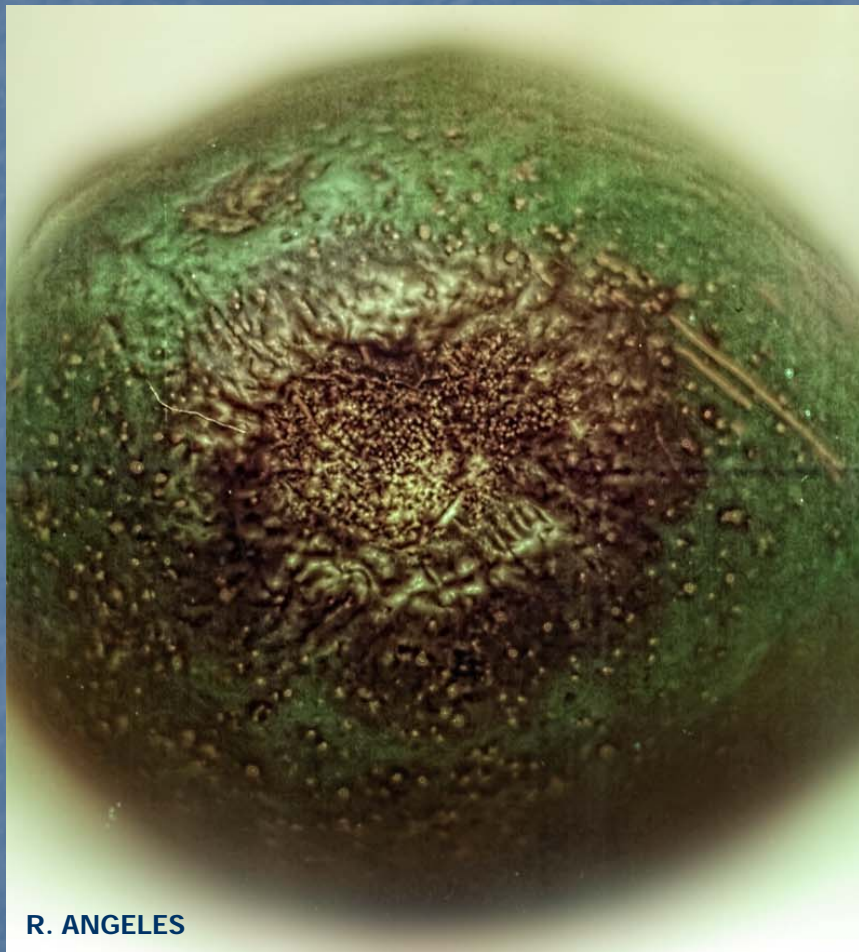
Objetives

- To detect diseases on farm products postharvest
- To do presumptive/symptomatic diagnosis
- To find out possible pathogens associated

Materials And Methods

- Samples collected at super/minimarket, trucks and individual street sellers (2009-2010) in Sto. Dgo.
- Produces came from different producing regions
- Diagnosis based on typical symptoms/signs
- Samples with unknown / atypical symptoms taken to lab.

Results And Discussion



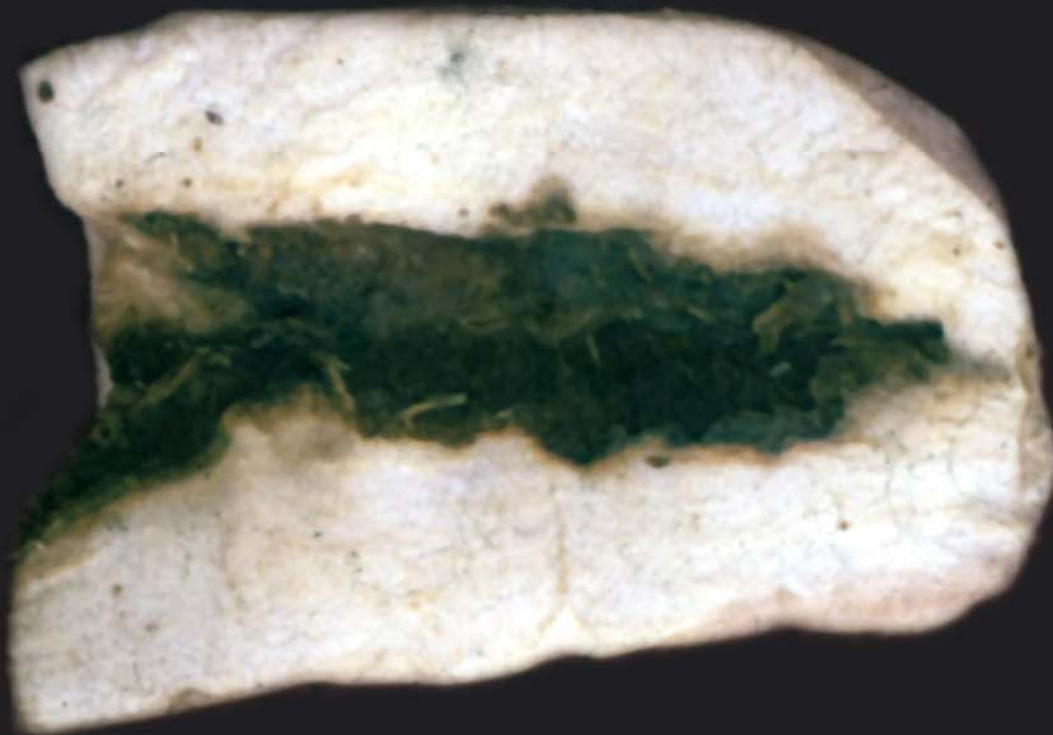
Avocado (*persea* spp), Anthracnose, *colletotrichum gloeosporioides*, (penzi) sacc.



Banana (musa AAA),crown rot ,*Fusarium sp.*,*colletotrichum sp.*



Cashew (*Anacardium occidentale* L.) , Fruit scab, *Phomopsis* sp. ? *Sphaceloma* sp. ?

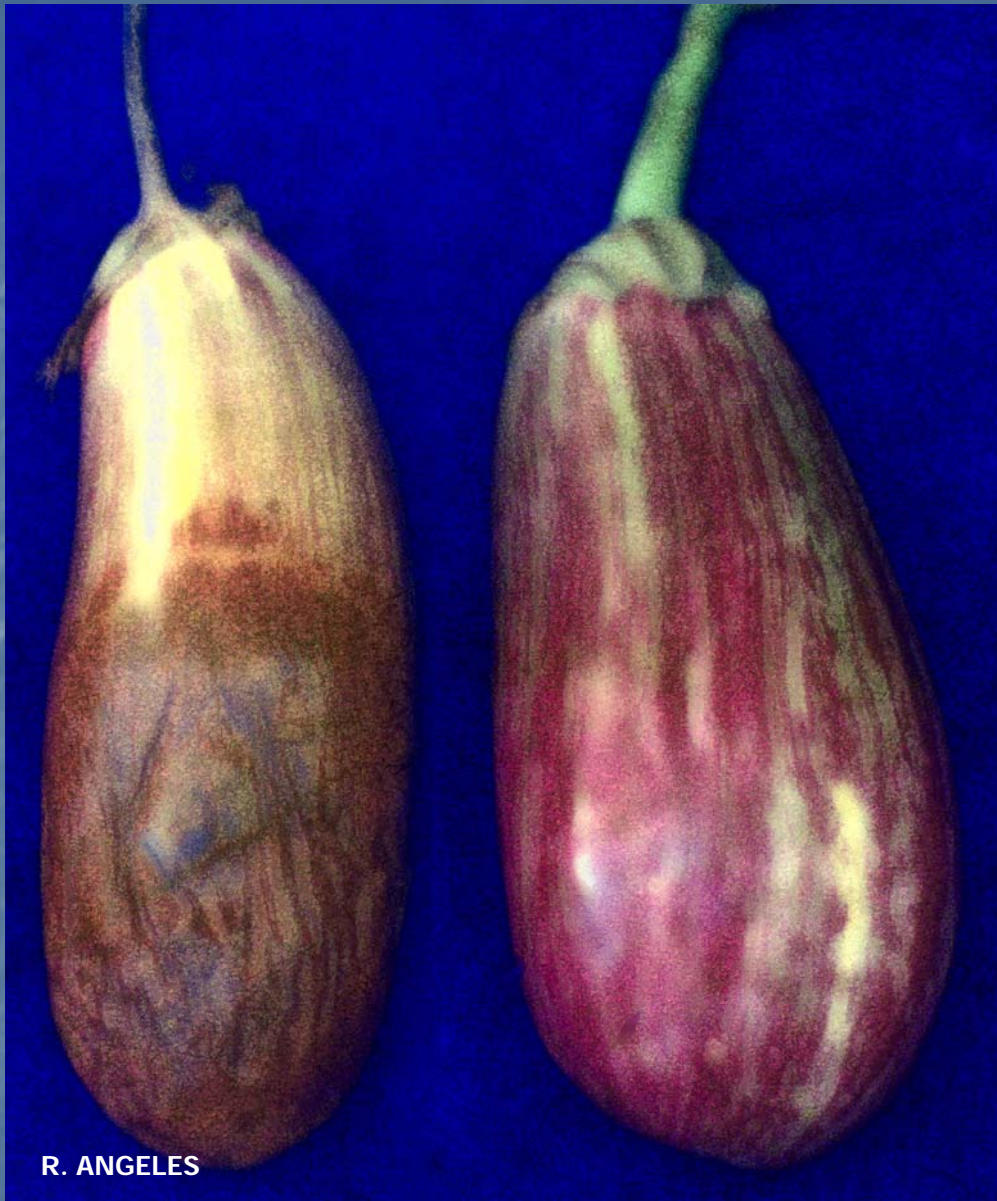


R. ANGELES

Cassava (*Manihot esculenta* Cranz) , Internal root rot, Unknown etiology



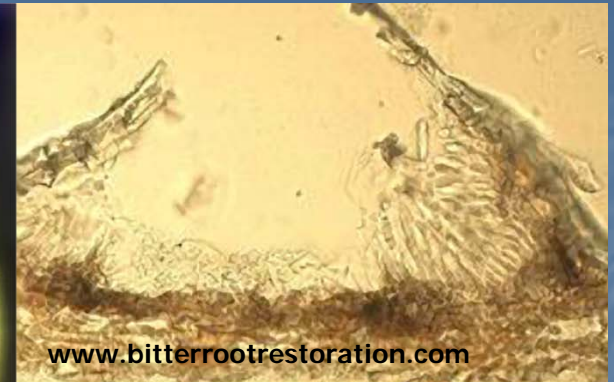
Cocoa (*Theobroma cacao* L.) Black spot, *Phytophthora palmivora*



Eggplant (*Solanum melongena* L.) , Fruit rot, *Phytophthora capsici*



R. ANGELES



www.bitterrootrestoration.com



www.botany.hawaii.edu

Giant granadilla (*Passiflora quadrangularis* L.) , Anthracnose, *Colletotrichum gloeosporioides*



R. ANGELES



Marrow (*cucurbita moschata* Duchesne), Ring spot, PRSVw (w strain) ?



Orange, mandarin (*Citrus spp.*), Greening(HLB), *Candidatus liberibacter*



R. ANGELES



R. ANGELES

Papaya (*Carica papaya* L.), Ring spot, *PRSVp* (*p* strain)



R. ANGELES



www.futuroagronomo.pe.kz

Passion fruit (*Passiflora edulis Sims*) Brown spot, *Alternaria passiflorae*

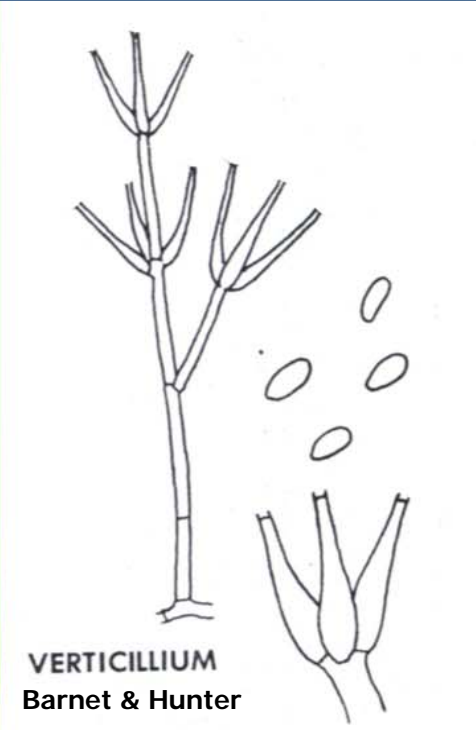


R. ANGELES

Pepper (*Capsicum spp.*) Bacterial spot, *Xanthomonas vesicatoria*



BASF, Germany



VERTICILLIUM
Barnet & Hunter

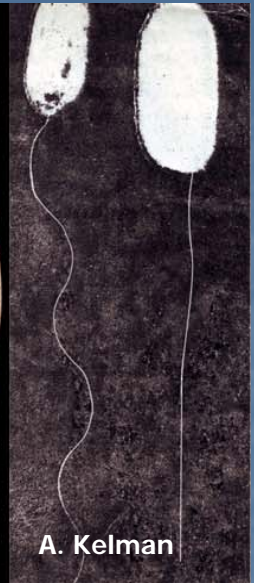
Plantain (*Musa AAB*) , Cigar end, *Verticillium theobromae*



R. ANGELES



P. Champoiseau



A. Kelman

Potato (*Solanum tuberosum* L.) , Bacterial wilt, *Ralstonia solanacearum*,
Phylotype III



R. ANGELES



www.efa-dip.org

Potato (*Solanum tuberosum* L.), Common Scab(Sunk spot), *Streptomyces* spp.



Potato (*Solanum tuberosum* L.), Soft rot, *Erwinia carotovora*



www.attra.org

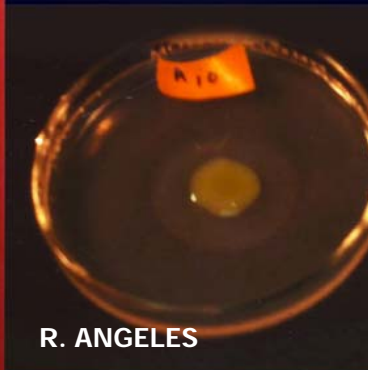


UNAP / IICA

Potato (*Solanum tuberosum* L.), Late Blight , *Phytophthora infestans*
De Bary



R. ANGELES



R. ANGELES



J.F Bradbury

Ripe Bean (*Phaseolus vulgaris* L.), Common blight, *Xanthomonas axonopodis* pv. *phaseoli*



R. ANGELES



www.olympusbioscapes.com

Ripe Bean (*Phaseolus vulgaris* L.), Anthracnose, *Colletotrichum lindemuthianum*



Tomato (*Lycopersicon esculentum* Mill) , Bacterial spot, *Xanthomonas vesicatoria*

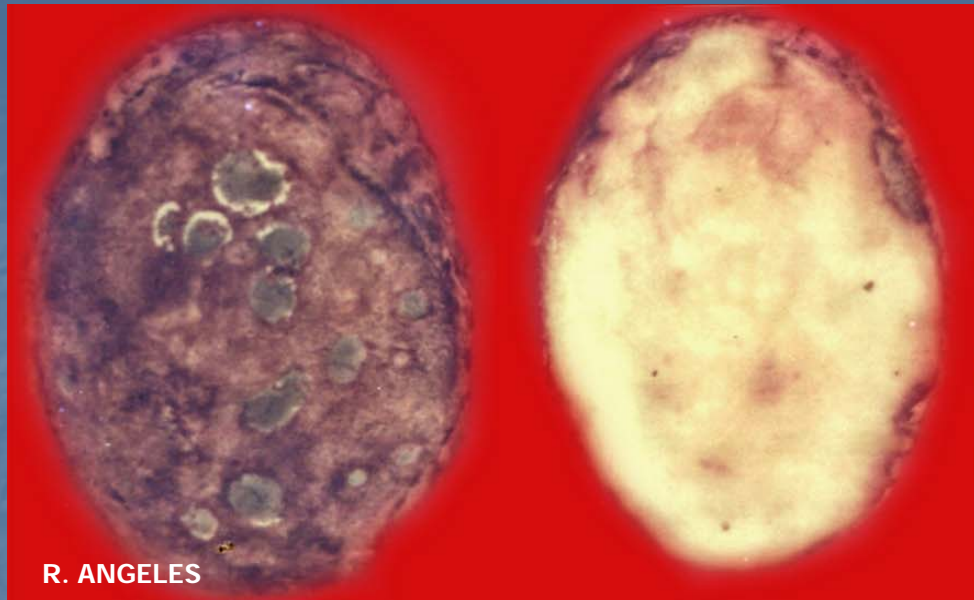


www.hoosiergardener.com



UNAP / IICA

Tomato (*Lycopersicon esculentum* Mill), Late blight, *Phytophthora Infestans*



Yam (*Dioscorea spp.*) , Tuber rot, *Penicillium sp.*

Total: 23 samples: 8 fungal, 4 straminipila (phytophthora), 7 bacterial, 2 viral, 2 unknown etiology.

Discussion

- field attacks of pathogens continue at postharvest along with weak/opportunist microorganisms
- Produces less attractive
- Market/nutritional value is reduced
- Insect / mechanical damages, unsuitable store conditions might rise both attacks of pathogens and physiological deterioration of products.