

BIOSECURITY

A Growing Threat for the Southern African Citrus Industry



**Hennie le Roux, Vaughan Hattingh, Paul Fourie,
Tian Schutte, Elma Carstens, M.C. Pretorius
& Hoppie Nel**



CGA CITRUS SUMMIT

Research

Some Potential Biosecurity Threats



**Asian HLB &
*Diaphorina citri***



**Leprosis
disease**



Sudden death



**Fruit fly spp –
*Anastrepha spp***



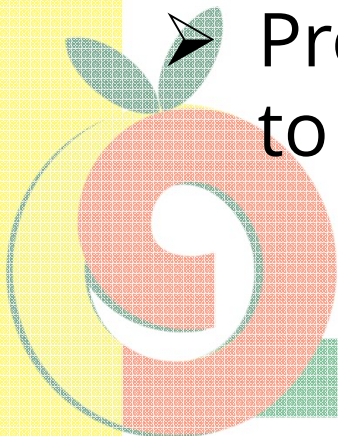
**Citrus Variegated
Chlorosis**



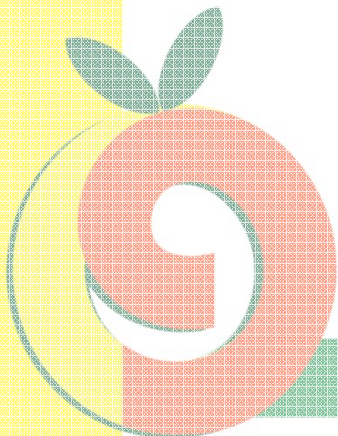
Citrus canker

Impact of Huanglongbing (HLB) on Florida: 2006-2015

- > 8 800 jobs & 15m trees lost
- 100% of orchards infected
- 120 000 ha of neglected orchards
- 15 out of 20 processing plants closed
- U\$4,6 billion lost from 2006-2013
- Production decreased from 225m 40lb boxes to 90 m



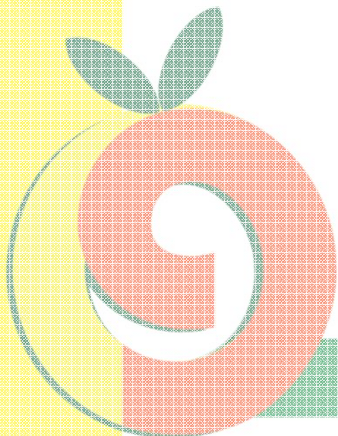
Before Huanglongbing (HLB)



cri citrus
research
international

Research

After Huanglongbing (HLB)

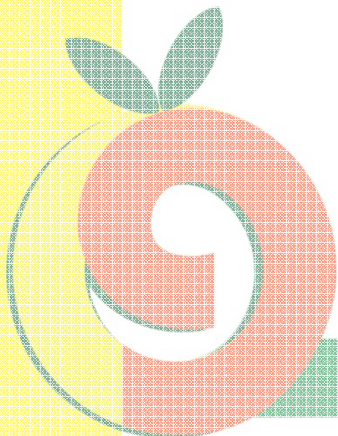


cri citrus
research
international

Research

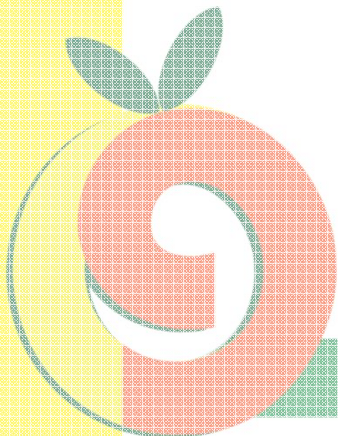
Impact of Huanglongbing (HLB) on Brazil

- Lost 34 m trees in 10 years
- % infected trees doubled from 7% to 14% in last two years
- Another 40 to 50m trees at risk due to poor management by small growers



Historical Case Studies in Southern Africa

1. Citrus canker
2. Citrus Black Spot
3. *Bacterocera dorsalis (invadens)*

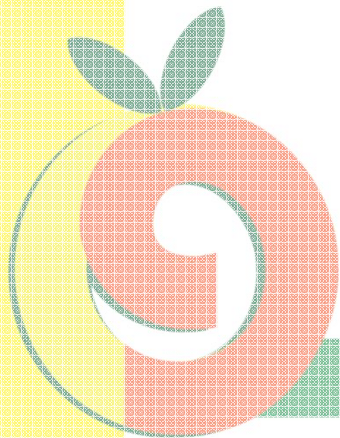


Research

Historical Case Studies in Southern Africa

1. Citrus canker

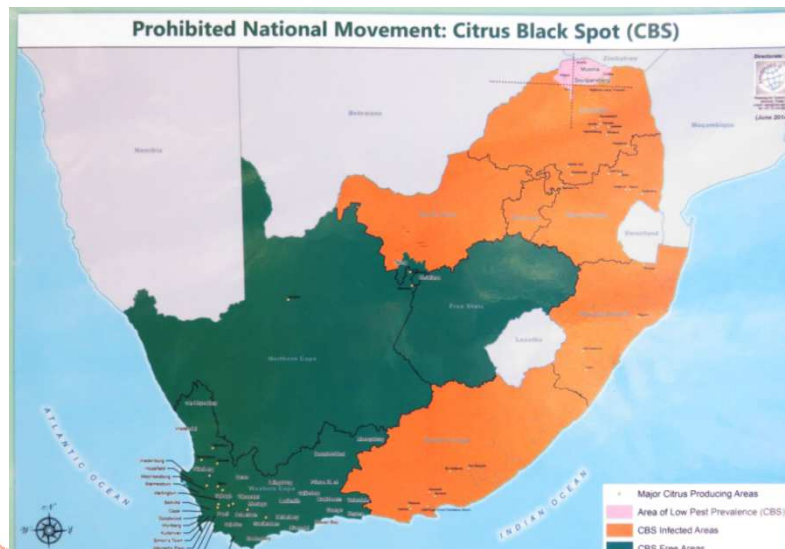
- Detected in 1907
- Rustenburg, Brits, De Wildt, Pretoria, Warmbaths, Tzaneen, Nelspruit
- Eradicated in 1927



Historical Case Studies in Southern Africa

2. Citrus Black Spot

- Detected in 1929 in KZN
- No eradication attempts
- Current distribution:

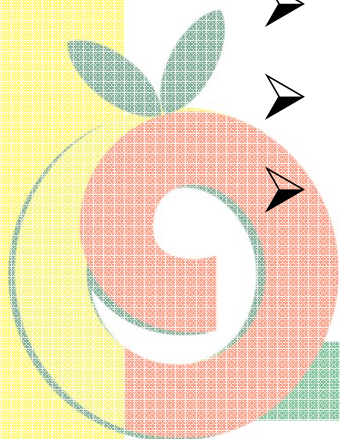
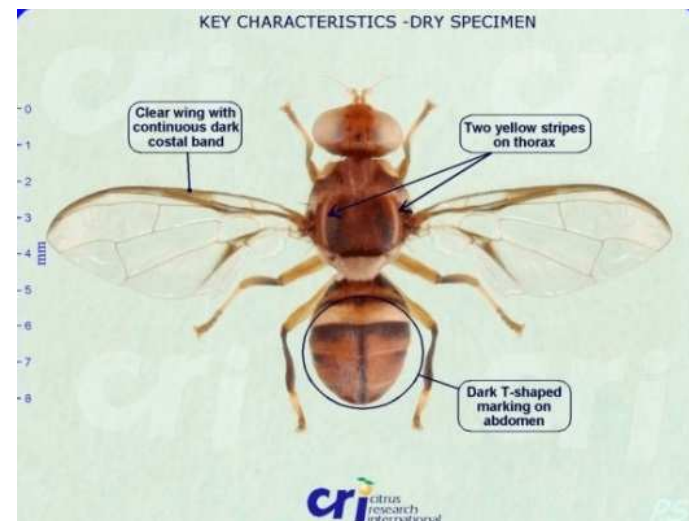


- Threatens R3 billion exports to EU

Historical Case Studies in Southern Africa

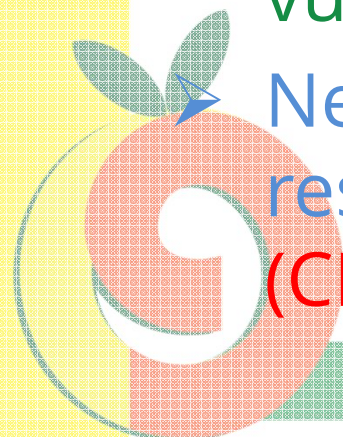
3. *Bactrocera dorsalis* (invadens)

- Rapid response by SA delayed establishment by 7 years
- Majority of country still Bd free (Eastern, Western & Northern Cape)
- Bought time to:
 - Demonstrate Med fly disinf treatments sufficient
 - Reclassify from Bi to Bd (open Eastern markets)
 - Develop effective control methods



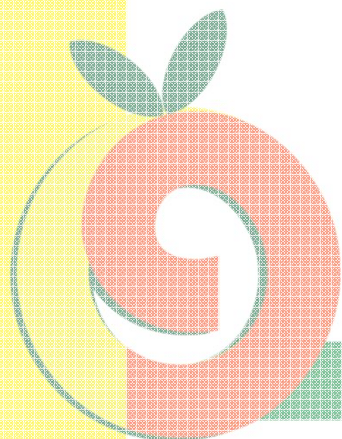
HLB: Our Industry's No 1 Threat

- Action plan has been developed, but requires resourcing
- Detection surveys are conducted, but insufficient
- Some regulations have been adjusted
- Voluntary participation in non-statutory CIS leaves industry vulnerable
- Need Government support, appropriate resource allocation and a champion
(CRI biosecurity post pending funds)

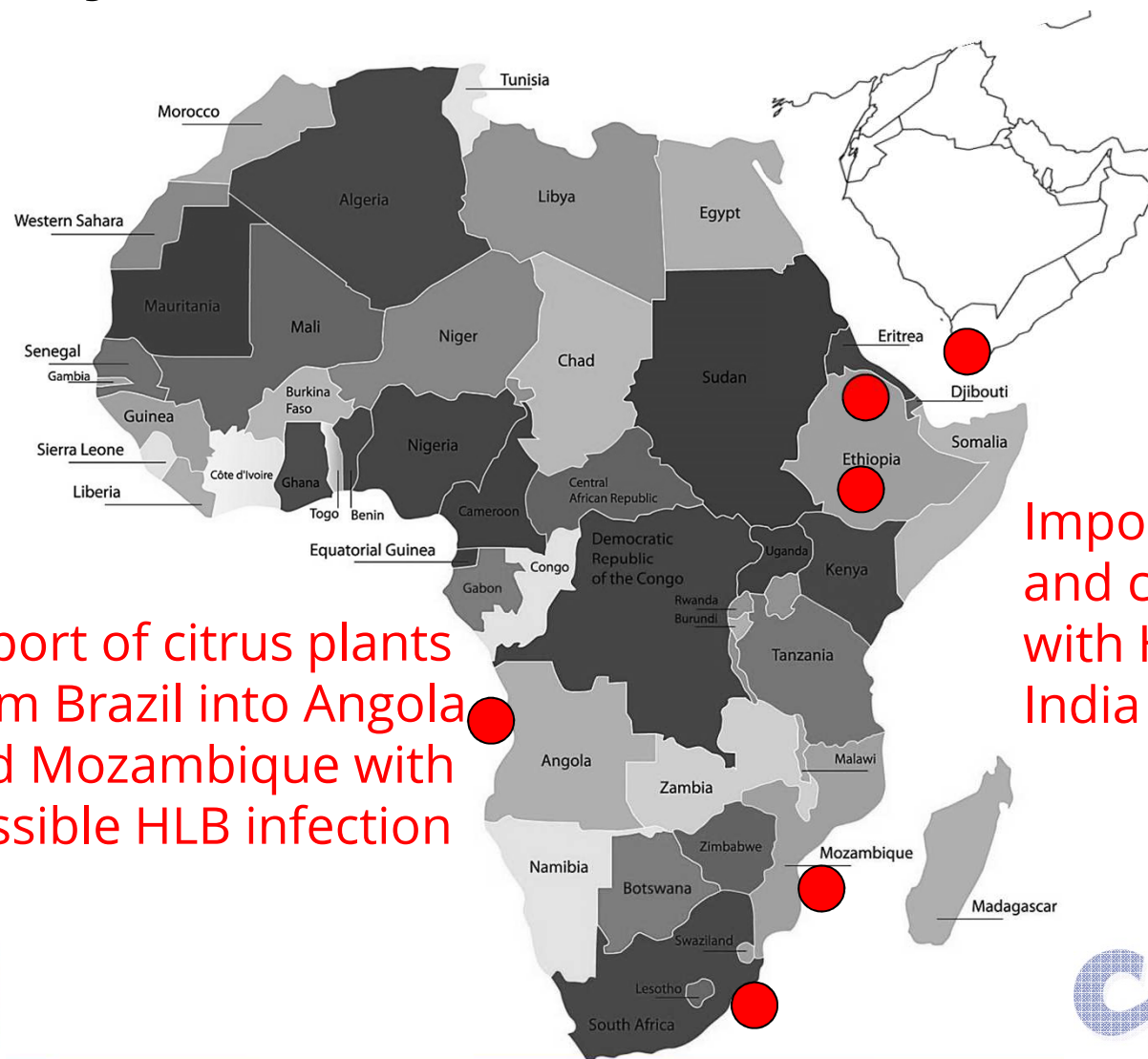


Research

Current Status of Citrus Canker in Africa

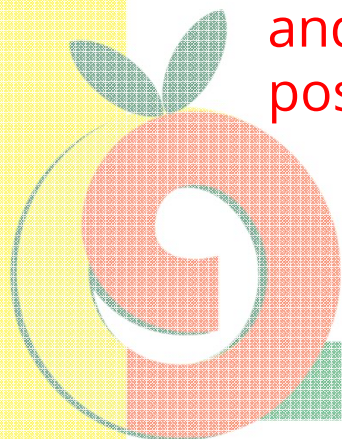


Current Status of **HLB** Threats to Our Industry



Import of citrus plants from Brazil into Angola and Mozambique with possible HLB infection

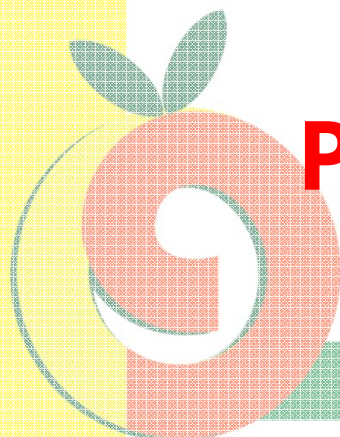
Import of citrus and curry plants with HLB from India and China



Protect the Southern African Citrus Industry



Prevention is better than cure



cri citrus
research
international

Research



Thank you

Hennie le Roux

(013) 759-8000 | hlr@cri.co.za



CGA CITRUS SUMMIT

Research