



Chestnut blight

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AGRICULTURE VICTORIA

Chestnut Blight



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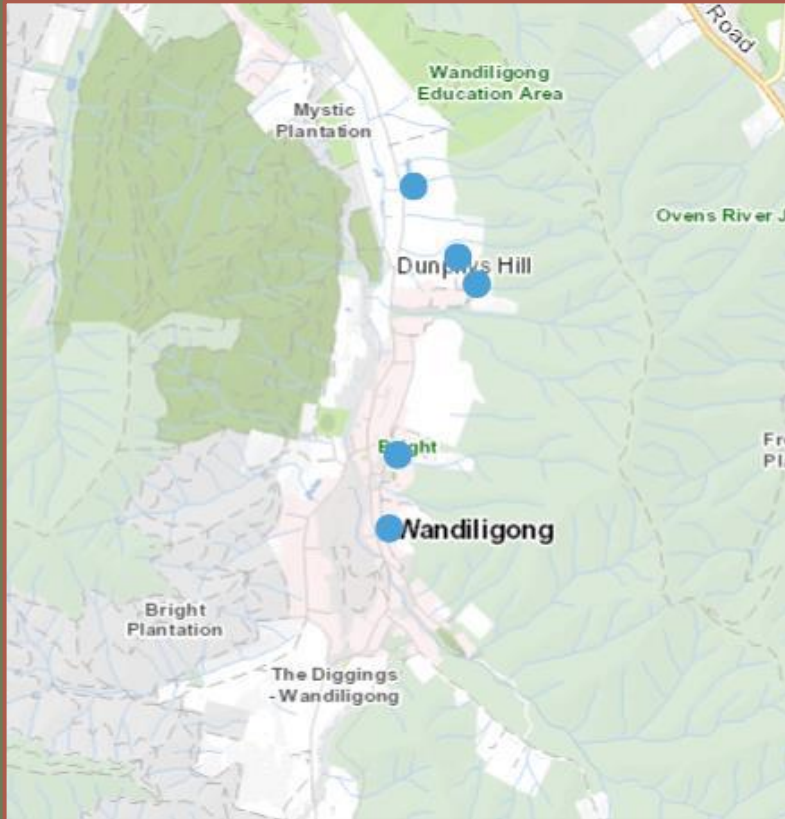
Introduction

- Grant - Biosecurity officer
- Chestnuts Australia Inc and Agriculture Victoria have worked collaboratively to understand the extent of chestnut blight, *Cryphonectria parasitica* in North East Victoria.
- Serious threat to the chestnut industry -the climatic conditions - La Nina.
- Surveillance
- Engagement
- Education
- Support



SURVEY SAMPLES

WANDILIGONG



● Recent Infected properties

EUROBIN



● Recent Infected properties

Survey results

Wandiligong, Smoko, Freeburg,
Tawonga gap, Buckland, Eurobin, Porepunkah,
Havilah, some in Stanley and Myrtleford

-13 samples positive

-11 properties,

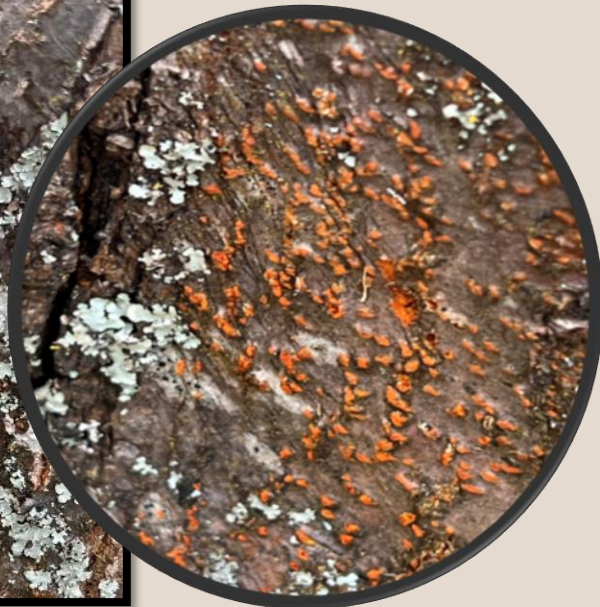
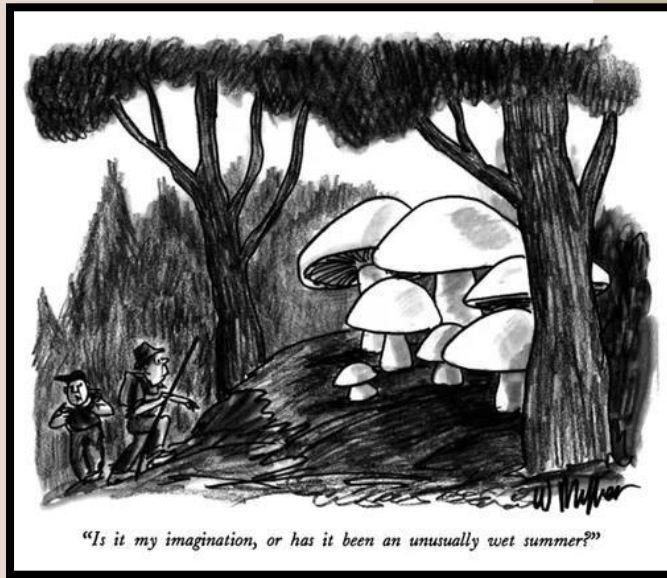
-42 infected trees

->70000 trees surveyed



SYMPTOMS

- Bark infecting fungus
- asexual and sexual
- Oranga stroma
- Dormancy
- environment



Blight canker- *Cryphonectria parasitica*



SYMPTOMS- what to look for!

INFECTED TREE



MYCELIM FANS



STROMA & LESIONS



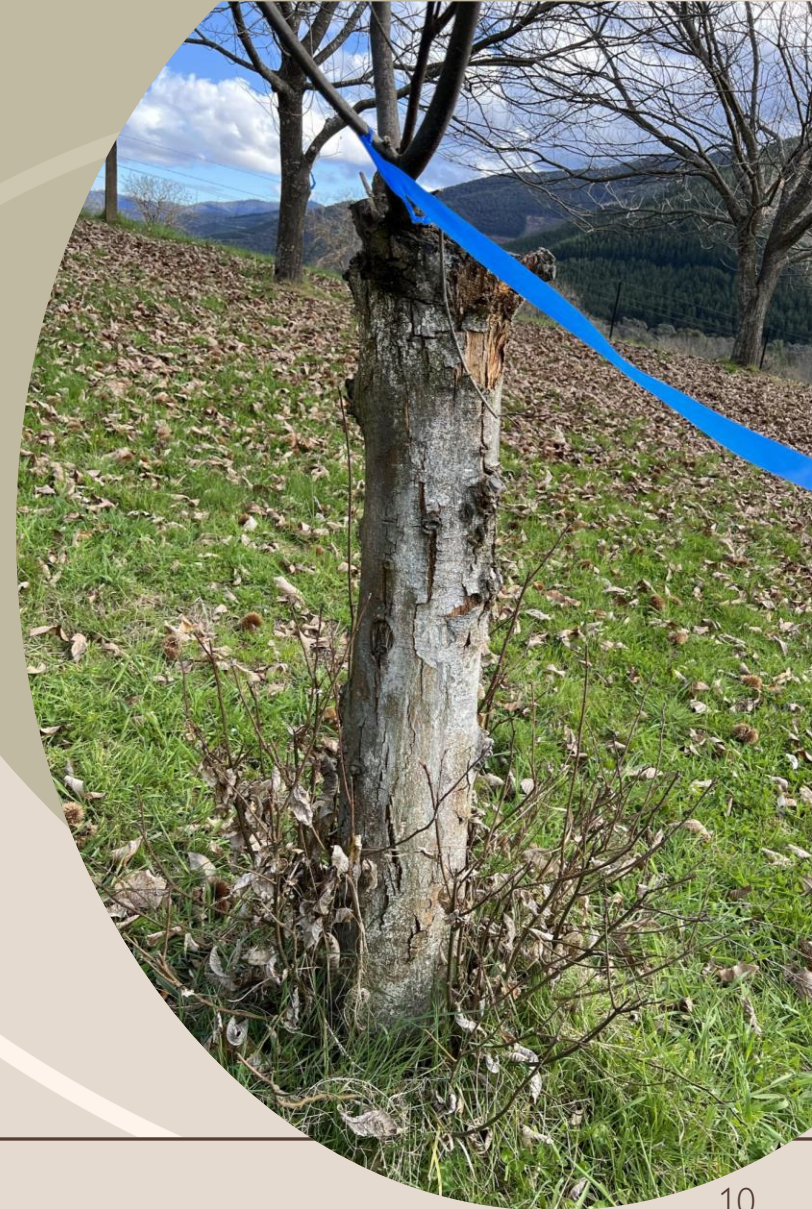
Blight- *Cryphonectria parasitica*



Blight - close up



High in the tree-wounds/grafting



Dispersal- passive rain, animal and human activity/wounds



ANIMAL HAIR

Dispersal spores



OLD PRUNING WOUND



Damage- deer



borer



Dispersal

-many ways spore can be spread once there is an infection



WOUNDS

rubbing



TERMITES

Inside blight sample



ANTS

Wet weather ants
moving



BEETLES

Lookalikes

Nectria canker is a common and potentially lethal disease affecting many species of trees and shrubs.

- No cure.
 - Cut below the canker
 - Disinfect tools for 30 seconds in a 10% bleach solution or 70% alcohol spray.
 - Prunings- burn
- (Joy and Hudelson 2005).

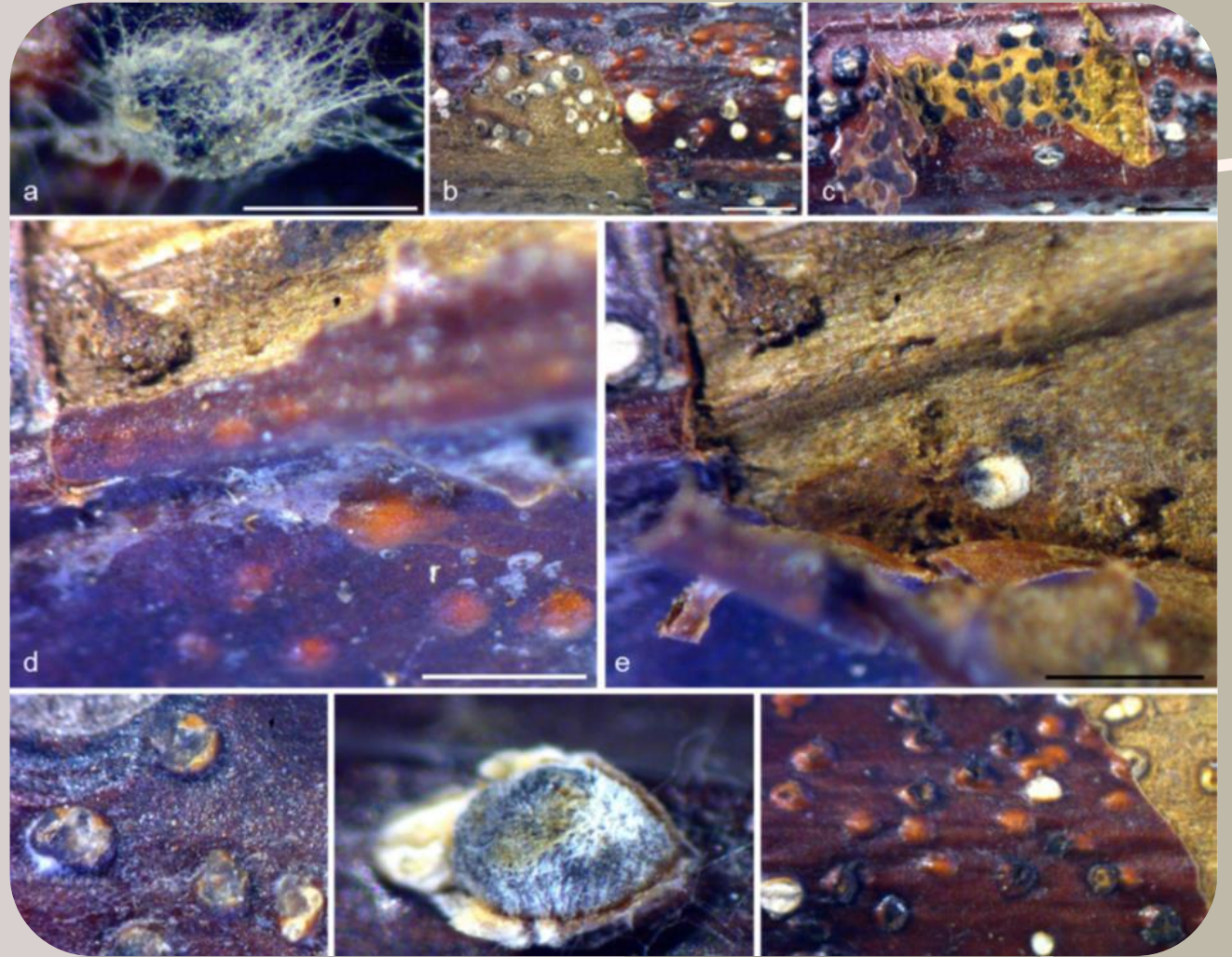
- Growers see anything suspicious, get it sampled!!!



Chestnut Rot (*Gnomoniopsis smithogilvyi*)

- Symptoms are similar to those caused by chestnut blight (*Cryphonectria parasitica*)
- Common symptoms are unspecific cankers and specific fruiting bodies such as pycnidia.
- Stromata and slimy twisted tendrils.
- Differ by the colors of the pycnidia, the stromata. (Pasche *et al.* 2016)

In the same order: Diaporthales



Pezicula pseudocinnamomea

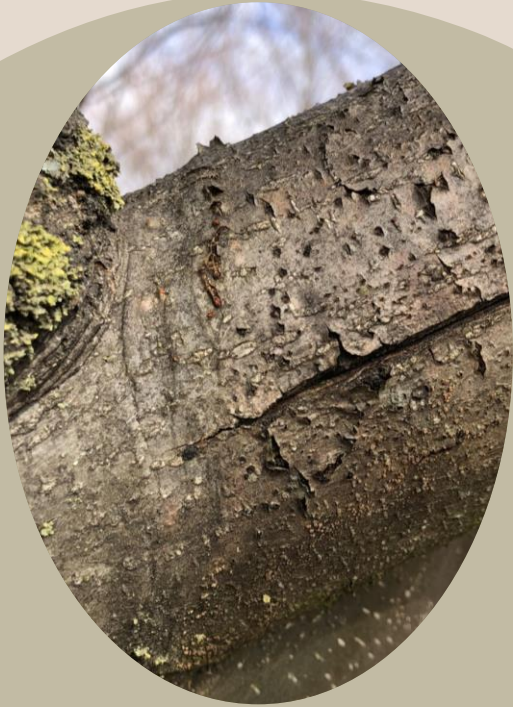
Species of *Pezicula* -reported from temperate regions of the world,
saprobes -dead branches and twigs,
or as endophytes frequently isolated from living branches and roots displaying no disease symptoms (Chen *et. al.* 2013).

Some *Pezicula* species are weak plant pathogens, causing diseases when their hosts are under stress.



Eucalytus Blight (*Holocryphia eucalypti*)

not cleaning down machinery-opportunistic



Well worth sampling

Hygiene in the orchard –removal of dead and dying trees

WOOD PILE



INFECTED WOOD PILE



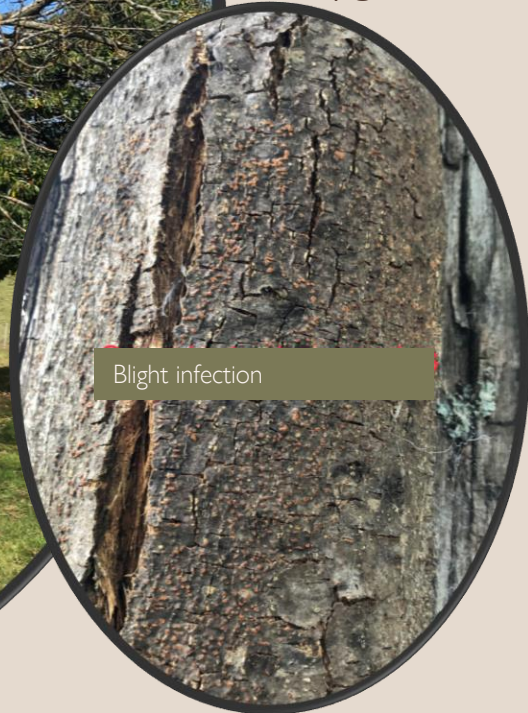
INFECTED TREE-BRANCHES ON GROUND



BURN

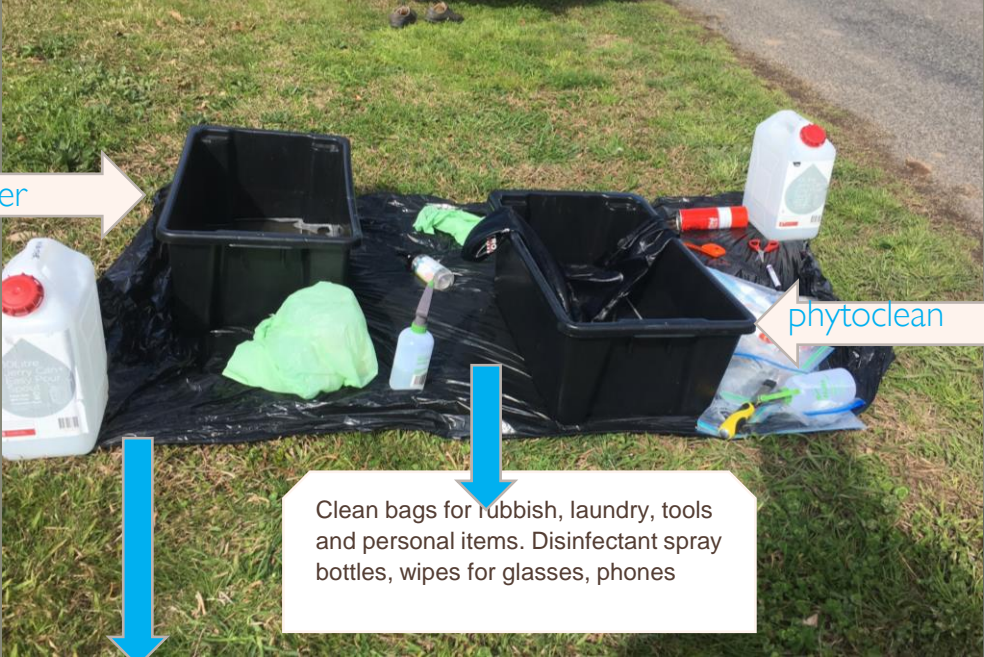
Hygiene on farm

- Survey trees regularly for any changes
- Remove dead dying limbs/trees
- Suspect tree infection- sample
- Wrapped/cover tree or prunings.
- Removal of infected tree and roots as soon as possible
- Hygiene kit – clean equipment and clothing



Hygiene kit

Orchard side,
Dirty



water

phytoclean

Plastic sheet

Clean

CLEAN SHOES



CLEAN VEHICLES & EQUIPMENT



WASH CLOTHES & HATS



ASK FOR HELP



summary

- Future surveys will delineate blight infected areas
- People need to survey their own property surveys and look for changes
- Volunteers for surveying future properties
- Remove infections as soon as possible
- Maintain hygiene

Through surveillance, engagement, support & education we hope to eradicate the blight threat to our chestnut farmers



Resources

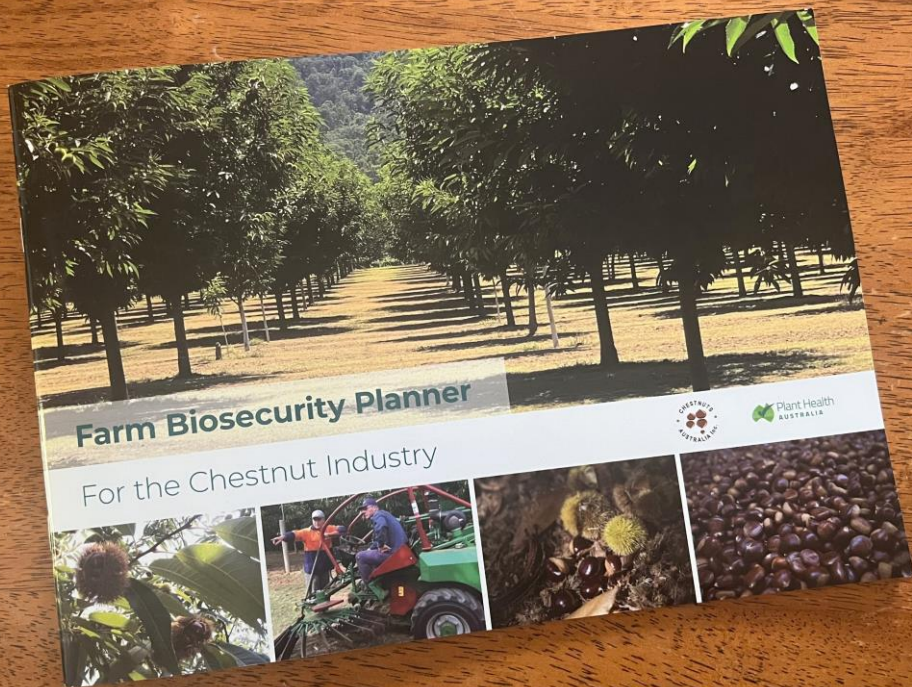
Chestnut Australia website, ibo@chestnutsaustralia.com.au
Resources biosecurity planner , hygiene kit flyer,
chestnut blight guide.

Other websites;-

agriculture.gov.au/environmental-biosecurity-webinars

Plant health Australia biosecurity webinars

www.farmbiosecurity.com



thank you

