



# Chestnut blight

Trevor Ranford and Elke Jasper

**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 - expected La Nina.
- Surveillance
- Engagement
- Education
- Support

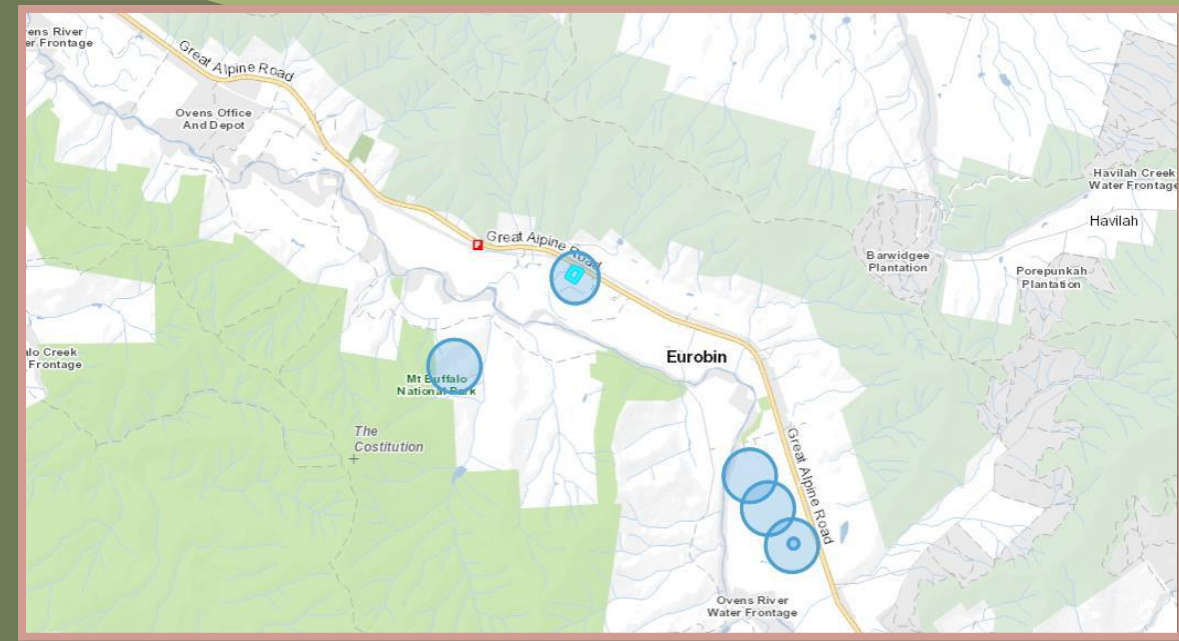


# SURVEY SAMPLES

## WANDILIGONG



 Infected property



## EUROBIN

### Survey results

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

-12 samples positive

-10 properties,

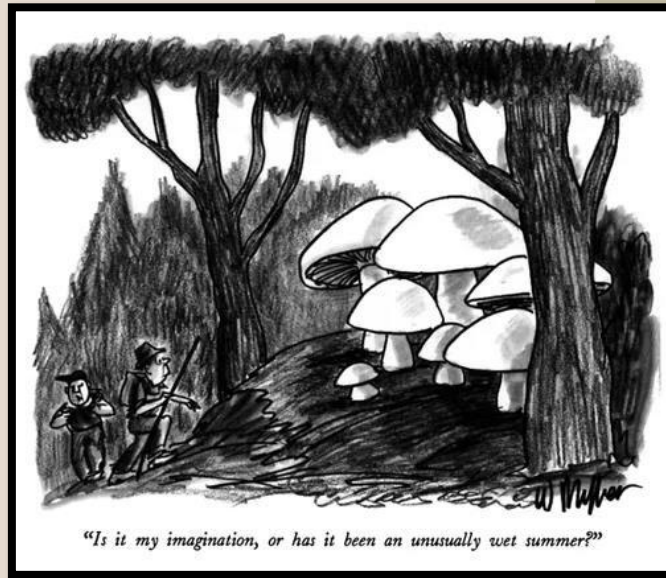
-38 infected trees

-36971 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*

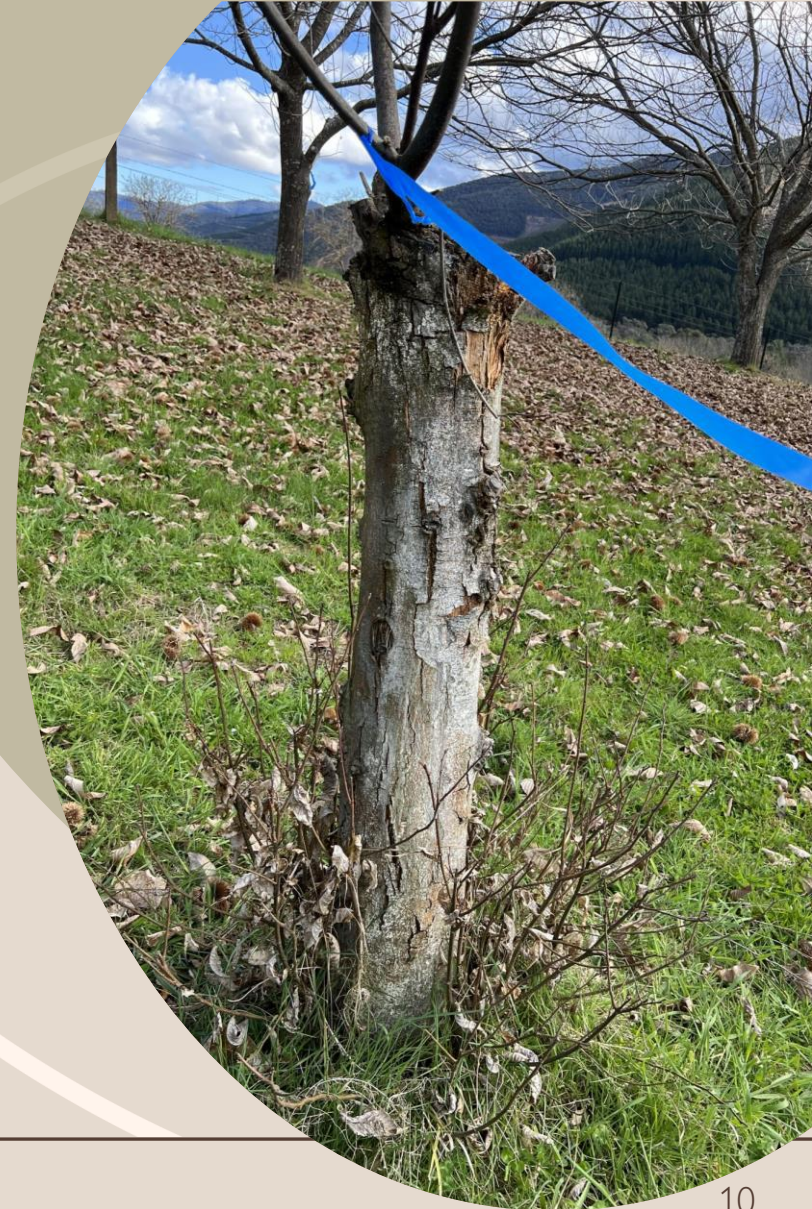




# Blight - close up



# High in the tree-wounds/grafting



# Dispersal- passive rain, animal and human activity



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).

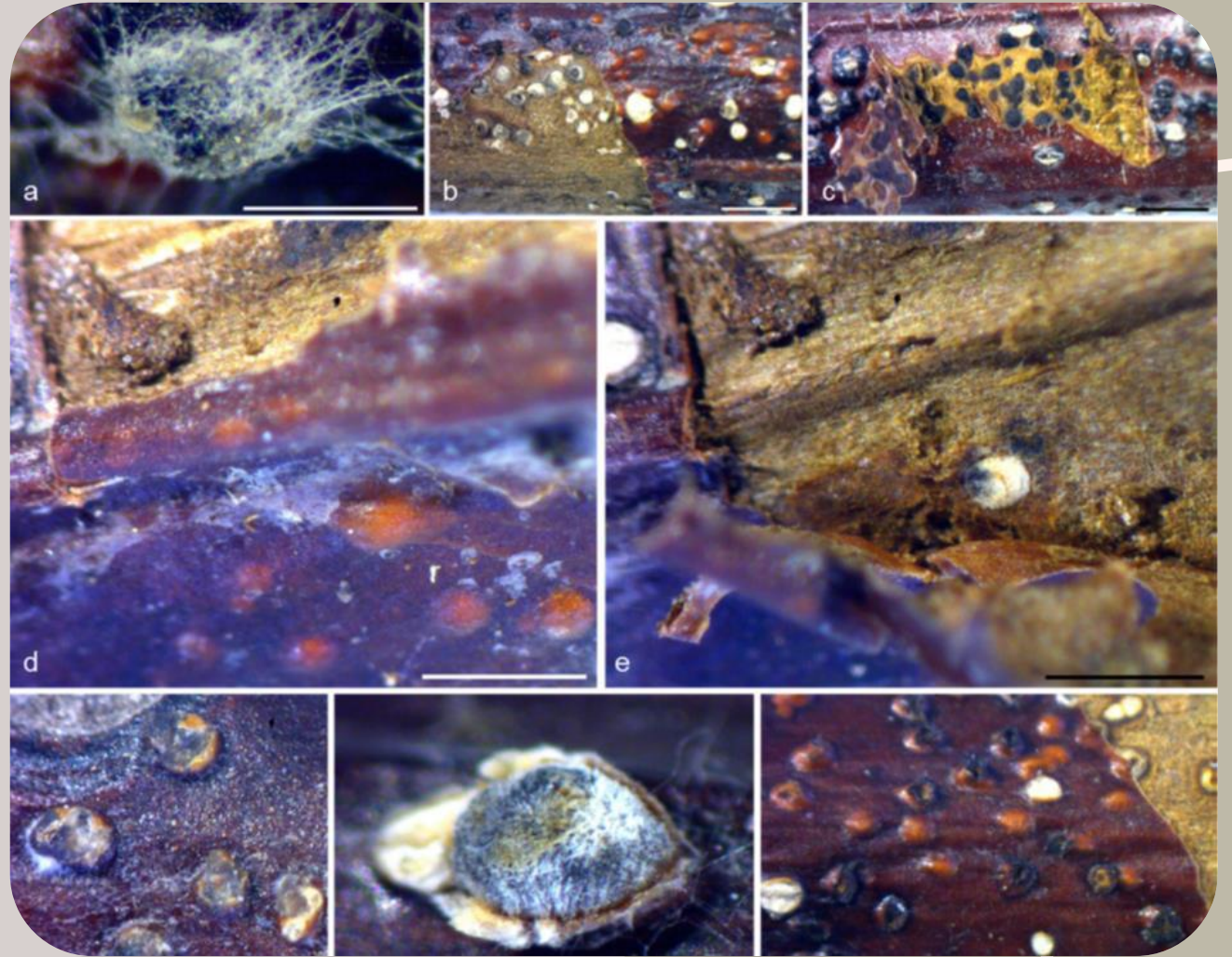
- Growers see anything suspicious, get it sampled!!!



## 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 cinnamomea*

Species of *Pezicula* are predominantly 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).

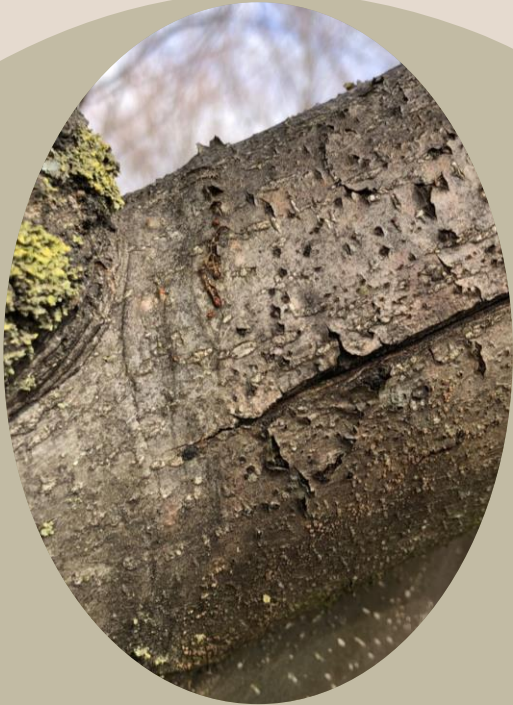
Some *Pezicula* species are weak plant pathogens, causing diseases when their hosts are under stress.





# 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



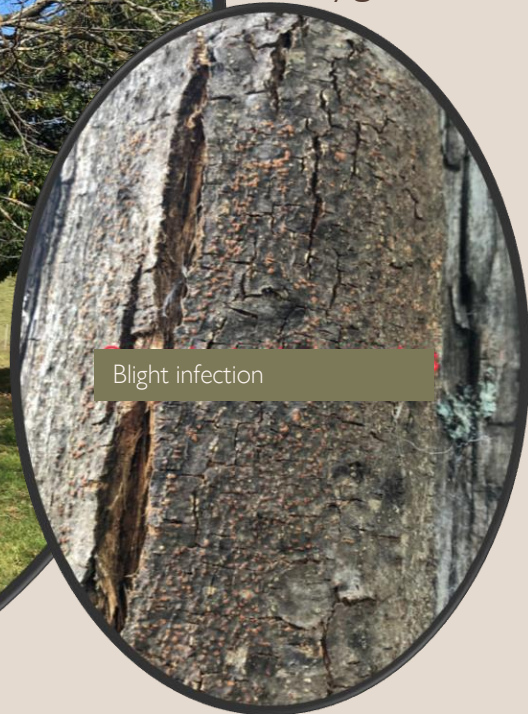
INFECTED TREE-BRANCHES ON GROUND



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

Clean

Plastic sheet

Clean bags for rubbish, laundry, tools and personal items. Disinfectant spray bottles, wipes for glasses, phones



# summary

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

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



thank you

