

# Chestnut Blight Symptoms

16 November 2019

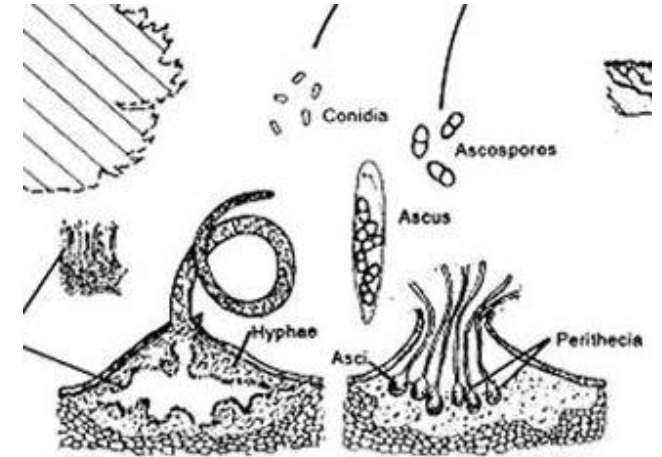
# Lessons from the history of chestnut blight detection

- The symptoms of the disease are hard to find when lesions are small
- Obvious symptoms such as orange spots (stroma) can come and go, turning dark after the active spore producing phase
- Disease has been found in autumn, winter and spring
- Don't assume that you've surveyed enough times to ensure your grove is free of the disease

# The fungus and chestnut lenticels



- The chestnut blight fungus infects trees at wound sites such as pruning, bark splits grafting sites.
- It spreads underneath the bark, killing the tree growing layer, the cambium
- It pushes through the tree's lenticels, little sections of bark important for gas exchange
- The fungus spores (conidia) are either produced in a long thread (cirrus ) or shot into the air (ascospores)
- A person brushing clothing against a cirrus could transmit the disease elsewhere



# Chestnut Blight Symptoms

Text book and internet images

- These usually present the most distinctive ‘classic’ symptoms
- SO they can be misleading and you may discount symptoms that aren’t like the classical text book symptoms
- SO The following images are all from Victoria and show a range of disease expression found locally

## Young, discoloured bark

Note,  
no  
stroma



## Orange fungal growth on an old cut



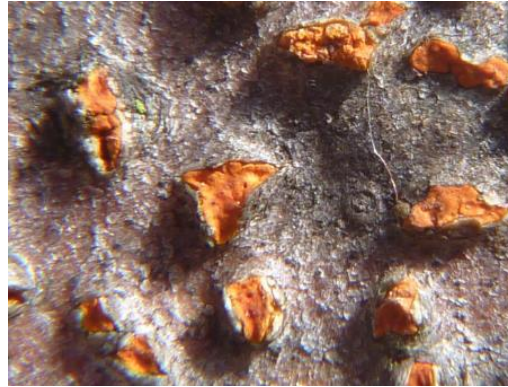
Is it blight or a common wood rotting fungus?



# Degree of infection – early to advanced

## Ease of detection

Hard



Orange stroma



Easy



# Where to look - Every where! - But prioritise

Tree trunk especially swollen trunks  
Split bark

Graft unions

Pruning wounds

Base of dead branches

Branch junctions

Other wounds





**Dead branches**



**Split bark**



**Orange stroma erupting through paint**





## Branch junctions



## Old cankers



# Dead water shoots, split bark on swollen trunk/ branch, leaves retained





# Wounds



Old mower wound now with stroma  
Hard to see if grass is in the way



Split bark



Wood rot edge

## Discolouration of bark on branches but not showing stroma with orange centres



Be prepared to encounter symptoms that aren't typical 'text book' symptoms

In these cases to take a sample –  
To be sure, to be sure!



# Not all orange spots are equal!

- There are a number of 'look-a-like' orange spots to be aware of
- The following slides show case some of these

## Eucalyptus canker - looks very similar to chestnut blight



It can only be distinguished in a diagnostic lab using DNA techniques

# Physiological disorder





# Not all orange fungi are the chestnut blight fungus



Some spots are lichen  
structures



Some are common wood  
rotting fungi



# Lichen



## No obvious stroma but still infected with chestnut blight

What symptoms would lead you to suspect chestnut blight?



**What symptoms are characteristic of chestnut blight here?**



# Containing the spread of chestnut blight

- Ensure trees and grafting material are sourced from disease free properties
- Restrict visits to other chestnut groves
- Have a biosecurity sign at the front gate
- Don't share tools and equipment
- Apply good hygiene practices

## **If you find had an infected tree on your property -**

- What extra precautions do you think you should do to stop the spread of the disease?



# Hygiene practices

- Foot baths are to protect against transmission of *Phytophthora*, not chestnut blight.
- The suits are protect against transmitting chestnut blight from one grove to another. **ONLY WORN ONCE**
- If you go to other's groves, don't wear clothes you've worn while working on your own property.
- Wear freshly cleaned clothes or a disposable spay suit as shown... And use a footbath! ( prevent *Phytophthora* spread)
- And don't make contact with the trees unless you are taking a sample
- Disinfect your cutting/pruning equipment regularly



## What you can do

- Regularly monitor your trees for signs of the disease
- Report suspected signs of chestnut blight to Agriculture Victoria by phoning 136 186
- Or by emailing photos, together with a contact phone number and tree's location to [plant.protection@ecodev.vic.gov.au](mailto:plant.protection@ecodev.vic.gov.au).

Thank you

Any questions?