



**CHESTNUT CHAT – Q & A**  
**CHAT 10: PLANT PATHOLOGY FOR NON-PLANT PATHOLOGISTS**  
**DATE: FRIDAY, JULY 24, 2020**

QUESTION	ASKER NAME	ANSWER(S)
How much of a role do you think plants' fungal associates (mycorrhizae, etc.) play in bolstering immunity to pests?	Louise Aucott	live answered
What is known about the AC response to Phytophthora which apparently is mostly lethal to them?	Anonymous Attendee	live answered
How do transgenic American chestnuts respond to inoculations similar to the ones that you showed?	Dan Schadler	see <a href="https://www.esf.edu/chestnut/resistance2.htm">https://www.esf.edu/chestnut/resistance2.htm</a>
How does oxalic oxidase gene confer immunity?	deantully	live answered: It enables the tree to produce one additional enzyme that breaks down oxalic acid that the fungus produces to dissolve the cambium layer of the tree thereby producing food for the fungus. So the tree isn't immune to the effects of the fungus, but it can destroy the toxin that the fungus is producing long enough for the tree to wall off the fungus and stopping it from doing further damage to the tree's cambium.
You mentioned plants defend against some insects in a similar way. Can you say more about the similarities and differences between the plant response to microbes and insects and give any examples of insects where the response is similar?	Thom Green	live answered
Can you speak about cruddy bark	Paul	live answered



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Have any chestnut blight pattern recognition genes been identified ? Have they been transferred to other organisms?	Frank Velez	live answered
Is there a difference in the M -RNA response between the two species. Also can we introduce resistant genes that are present in the chinese response and introduce them with vectors to the American chestnut.	Anonymous Attendee	live answered
Great explanations of someone who really understands mechanisms	Robert Gilman	live answered
How does the chestnut blight actually penetrate the bark of a healthy, mature wild tree and what is the risk of transferring blight in the search for wild trees?	Rich Bray	live answered

