

CHESTNUT CHAT - Q & A

CHAT 08: USING DRONES TO BENEFIT AMERICAN CHESTNUT RESTORATION

DATE: FRIDAY, JUNE 26, 2020

QUESTION	ASKER NAME	Answer(s)
what do you suppose the price of a fixed wing drone islike your friend's	laurae.dooley	live answered
Have any chapters been able to get approval for drone flights in National Forests?	Jack Rogers	live answered
Did you have any success in locating trees with the fixed wing drone?	ave any success in locating trees with the fixed wing drone? Dave Gill	
if you have a lone tree and no other flowering chestnuts, where can you find a source of pollen	Jim English	live answered
Almond growers normally rent bee hives for pollination, have you compared flower to fruit ratios for bees and drones?	G kotnik	live answered
Which drone control software are you guys using?	Jack Rogers	live answered
For most plants making fruit/seed requires a lot of the plant's energy and can put a lot of stress on the plant. If we increase production of fruit on chestnut is there any risk of making the tree more susceptible to blight or other diseases.	Frank Skalak	live answered
I am with Chenango County 4-H. would it be possible to watch when you are at the Sherburne orchard. Maybe bring some kids?	Richard Turrell	Let's coordinate over email afterwards-alexy@dropcopter.com
We have a few families doing a 4-H project with Chestnut trees	Richard Turrell	live answered
Is it possible to use high resolution satellite images to find flowering wild chestnuts in locations that are suitable for pollination?	Rich Bray	live answered
Has anyone in TACF tried ultra-lights to locate chestnut trees in a large forest and can you definitely identify a chestnut tree from the air in a ultra-light?	Roger Willby	live answered
Besides wind-blown pollinating are there any pollinators that would also pollinate? This would only apply to enhancing a group of trees not to isolated trees.	Frank Skalak	live answered



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Does any other country have blight free trees? Possibly harvest pollen off shore?	Matt Koball	
Most intensive inspection drone footage uses AI to identify what is being searched for, i.e. power line inspections. Manually searching for chestnut trees would be a huge task. I think this would work, but the limitations of battery life, 20 min usually and the availability of open spaces for take-off would be limits as well as draconian laws that vary from state to state on drone operations.	jonathanstarling	live answered
Just an FYI, I'm with the Georgia chapter. I'm a pilot and have my FAA 107. I'm hoping to do some drone searches for flowering surviving trees in the Chattahoochee National Forest in the near future. If anyone is interested in collaborating please let me know.	Jack Rogers	Cool! Would be happy to converse over emailalexy@dropcopter.com
I was wondering whether chestnut trees might show a signature in hyperspectral data across a wider time-series of satellite images, e.g. incorporating leaf-out and fall color.	Derek Dohler	live answered
ultra lite aircraft is a very light airplane. even powered hang gliders qualify as ultra-lite aircraft.	Jim English	live answered
FYI: Here at Powdermill Nature Reserve, we have actually flown drones equipped with a multispectral camera over a chestnut grove in Westmoreland County, PA on Chestnut Ridge. We are hoping to analyze this data to determine if it can be used for quantifying chestnut health and growth. More to come hopefully.	Powdermill Nature Reserve	live answered
I also think it would be worthwhile to try hyperspectral satellite imagery to locate trees. The capability is getting better and cheaper quickly, and I think we could get an academic program on GIS/remote sensing to help us out.	Jack Rogers	live answered



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I am skeptical that satellite data is high enough resolution to get what is needed to actually segment trees species	Powdermill Nature Reserve	live answered
"'@jackrogers I would be interested as well.		
Sorry can't seem to send directly to him. Jonathans.starling@gmail.com"	jonathanstarling	
Also interested in working on hyperspectral ddohler@azavea.com	Derek Dohler	