The Affects of Fungicides on the Presence of Chlorophyll in Ohia lehua

Nishikawa, Tani-Lei (School: Kailua High School)

Purpose: In an effort to reduce the spread of Rapid Ohia Death, this project was to find how different fungicides (chemical, natural, and controlled) affect the chlorophyll concentration in Ohia Trees, testing the hypothesis that controlled and natural fungicides will have the same effect. Procedure: Obtain 3 Ohia trees and split them into sections. Spray chemical fungicide, water, and cinnamon fungicide respectively onto each partition and wait 10 days, spraying every 2 and watering those same days. Extract chlorophyll and test absorbances using spectrophotometer to figure out chlorophyll concentration among the three plants. Data/Results: For tree one, the fungicide had an average absorbance of 0.178, the cinnamon with 0.105, and the water with 0.392. For tree two, the fungicide had an average absorbance of 0.133, the cinnamon with 0.093, and the water with 0.102. For tree three, fungicide had an average absorbance of 0.076, the cinnamon with 0.074, and water with 0.155. Bugs and parasites were found on tips of leaves on trees 2 and trees 3. Conclusion: The hypothesis wasn’t supported. The error bars were so large that it wasn't clear how much better water did than the other fungicides. The natural fungicide appeared to do worse than the chemical. Although the data may have not been conclusive, it does open ideas for future research.

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