

Public Relations for Cal Poly Avocado Rootstock Trial

A Senior Project

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Bachelor of Science

By

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Introduction

Avocados have been one of California's specialty crops for quite some time now. The industry has been motivating growers to implement the best management practices to ensure stable and increased production as much as they possibly can. California is the leading state in the country for avocado production. In 2019, California alone produced 109 tons of avocados (US Department of Agriculture, 2020). Unfortunately, root rot has made it a challenge to do so.

Root rot is a disease derived from the *Phytophthora cinnamomi* pathogen. This is an issue for avocado production worldwide. In efforts to find a method of decreasing the probability of root rot affecting the avocados, Cal Poly's College of Agriculture, Food, and Environmental Sciences (CAFES) is conducting an avocado rootstock trial run by the Horticultural and Crop Science (HCS) Department. At Radio Tower on campus, several trees have already been infected with the disease. The plan is to rip the infected trees out and install rootstock from different growers to evaluate which are most resistant.

The author's role in the project is creating the handouts and an article with information explaining the trial. If faculty or staff were to be asked or addressed about avocado trees being ripped out or the trial, they can refer to the material the author has developed. Materials developed will be used to educate the public about Cal Poly's research and actions in the avocado grove.

Background

The *Phytophthora cinnamomi* pathogen can develop from excessive soil moisture and poor drainage (UC IPM.) This location on radio tower is prime for the trial considering the pathogen is already in the soil. Although more than one rootstock can be resistant, they can be more selective based on their mechanism of resistance (Douhan et al, 2011.) The initial idea of searching for a potential resistant rootstock was derived from the University of California, Riverside (UCR).

Their motives were mostly based from the pathology aspect. In addition, several growers are donating funds and rootstocks to the trial. The growers are mostly in search of how resistant their own rootstocks may be and which in the trial turns out to be most effective against the *Phytophthora cinnamomi* pathogen. Their motives in finding out results is primarily related to knowing what would benefit production and yield the most. Through further investment and interest in this project, Cal Poly became part of it holding the huge role of hosting the trial site on campus (Garner). As the trial continues to develop, the author has collected footage and documentation of the experiment, so the author could use it and explain the process. Including information of the disease and how it can affect the avocado industry has assisted in creating a well thought out message. A positive message with clarification and purpose can influence the public's opinion (Prindle, 2011).

Methodology

To be able to complete the public relations materials needed for the rootstock trial, the author needed some more information on the project itself. The first step was to reach out and meet with Dr. Lauren Garner, a professor from the Horticulture and Crop Science Department that is heavily involved in the rootstock trial. The author visited her office and was able to learn more about the origin of the idea that led to the trial, and more specifically the project motives. As she elaborated more, the author learned how different groups had different motives for moving forward with the trial.

Along with the verbal information Dr. Garner shared, she has also sent pictures of the work being accomplished on the site. The rootstock trial initiated with the intent to find out what rootstock would be most resistant to the *Phytophthora cinnamomi* pathogen which causes root rot in avocado trees. Several individuals and growers were recruited to see if they would like to donate to the study along with a rootstock to include in the trial. Cal Poly has been decided to be an ideal site considering the avocado trees located on radio tower suffered from root rot, meaning the pathogen is present in the soil.

The process includes ripping out the infected avocado trees then installing the different rootstock for the trial. Pathologists are more interested understanding the resistance to the pathogen, while growers may be looking for which rootstock could lead to more yield or favorable characteristics under the root rot conditions. Different groups have different motives for wanting the results.

With this information, the author has developed a flyer to be sent out if the public has any questions. In addition, the author will be working with the Brock Center for Agricultural Communication and Advisor Megan Silcott in creating an article for AgCircle's Blog. This will be beneficial considering the AgCircle has a prestigious audience that can help share the information to others interested. The plan is for the Horticulture and Crop Science Department to use supporting materials when needed.

Results

The author has completed developing public relations material, with the end result being that the materials can now be used to inform people. A flyer with easy-to-read material for those not familiar with technical agriculture terminology who would like to understand the purpose of the rootstock trial. A card with brief information and where to access more in-depth information. As well as a written article with content of what the issue the *Phytophthora cinnamomi* pathogen causes to avocados, how it affects the avocado industry, and what were the origins and motives of the having the rootstock trial. In addition, the article is sent to be published on the AgCircle. These documents will allow for the effective communication of the avocado rootstock trial for *Phytophthora cinnamomi* held at Cal Poly.

Moving Forward

The flyer will be created on Canva. Canva is a favorable platform to keep the materials because its capability to share access in viewing and editing the file. The author will be sharing the Canva file to Dr. Lauren Garner as well as anyone else who will be involved in managing the public relations of this project. Due to COVID-19, the project has not progressed as planned, but having these documents completed will give the public relations of the trial a foundation to work from. Moving forward and as new images and information progress, the materials can be kept up to date as needed.

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