

Chemical Control of *Phytophthora citricola*

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Phytophthora citricola is the second most severe fungal disease of avocado. The pathogen has been reported attacking the feeder roots, major roots, trunk, and fruit of avocado. It is found sporadically in California from San Luis Obispo County south to San Diego County. While currently of a localized nature, the disease could become widespread and severe.

The objective of this project in continuing field trials is to find an effective chemical control for *P. citricola* in avocado. Its duration is estimated to be five years, beginning in the fiscal year 1989-90. This, then, is a report on the project's first year.

Field trials at two locations were scheduled to begin in late summer, 1990.

Because of the lateness in initiating field trials, the decision was made, in conjunction with the Society, to carry over funds to the next year. After reviewing data from previous control trials for this disease, it was decided to initiate a series of greenhouse trials to determine the effectiveness of chemicals in controlling *P. citricola*.

This trial began in August, 1990. It consists of 400 Hass trees on G755-B rootstocks. There are two parts to the trial: stem inoculations and root inoculations. There are 20 replications of each treatment. Label rates are used.

Stem Inoculations

Treatment before inoculation (5 days):

- Aliette foliar
- Aliette trunk paint
- Aliette drench
- Ridomil trunk paint
- Ridomil drench

Treatment after inoculation (3 days, or determined by lesion size):

- Aliette foliar
- Aliette trunk paint
- Aliette drench
- Ridomil trunk paint
- Ridomil drench.
- Non-inoculated control
- Inoculated control

Data collected will be lesion size compared to the non-inoculated control.

Soil Inoculation

Treatment before inoculation (5 days):

- Aliette foliar
- Aliette drench
- Ridomil drench

Treatment after inoculation (10 days):

- Aliette foliar
- Aliette drench
- Ridomil drench
- Non-inoculated control
- Inoculated control

Data collected will include growth, root mass, root appearance, and visual quality. The root inoculations will likely take six months, and treatments will be applied twice in that time period.