



## Disinfection trial for ToBRFV management in greenhouse environments at Vineland's Advanced Pathology Laboratory

Disinfection of greenhouse surfaces is a critical step in managing Tomato Brown Rugose Fruit Virus (ToBRFV). However, many current cleaners can damage surfaces (e.g. 10% NaOCl bleach), pose risks to human health (e.g. glutaraldehyde products), or leave residues (e.g. enzymatic products).

Our disinfection trial offers a comprehensive solution by testing a variety of disinfectant products on common greenhouse surfaces, helping growers identify the most effective and safe products to control ToBRFV.

### Key benefits:

- Custom testing: Tailored product testing on commonly used greenhouse surfaces, including glass, concrete, aluminum, steel, screens and heat pipe hose material, to assess their ToBRFV disinfecting efficacy.
- Comprehensive data: Each client will receive detailed performance data for their disinfectant products compared to an industry standard (10% NaOCl bleach) and an untreated control.
- Valuable insights: The results can be used to support label expansion or product registration and provide valuable information to help optimize disinfection strategies.

### Trial details:

- Scope: We have space for 12 products (1 treatment/rate each).
- Surfaces: Six common greenhouse surfaces will be selected based on discussions with participating companies. These may include rubberized heating hoses, insulated pipe wraps, enameled surfaces and more.
- Testing methodology:
  - Surfaces will be contaminated with a thin layer of plant sap containing ToBRFV.
  - Once dried, disinfectants will be applied as per client specifications.
  - Efficacy will be determined through swab tests, RT-qPCR analysis and bioassay using inoculation on Nicotiana plants to assess post-treatment infectivity.

### Deliverables:

- Client data: Each client will receive a complete data set comparing their products to the industry standard and untreated control.
- Product effectiveness list: A comprehensive list of effective products will be compiled and shared with growers and consultants.
- Final summary: A detailed report and summary presentation will be delivered to each client within two weeks of the experiment's conclusion.

### Contact:

For more information or to participate in the trial contact [bdoadmin@vinelandresearch.com](mailto:bdoadmin@vinelandresearch.com).

