

The VT Plant Disease Clinic (PDC) Annual Report 2023

A message from the PDC staff

As a service laboratory, the Plant Disease Clinic (PDC) staff put their plant diagnostic knowledge into action to solve plant and pest problems and, to provide science-based solutions that support Virginia agriculture and landscape professional and home growers with real, research-based solutions.

The PDC staff continue to look for opportunities to improve our services while providing accurate and timely diagnoses for our clients. We continue to add rapid, sensitive molecular tests for significant pathogens that negatively impact Virginia agriculture and its ecosystem. In December 2023, Elizabeth Bush retired, Congratulations Elizabeth!! Thank you for all your contributions to VTPDC and plant health over the years. We look forward to more opportunities throughout 2024 to put our plant diagnostic knowledge into action to support Virginian citizens and agriculture with real solutions that will improve the well-being of their plants, landscapes, and production operations!

Sincerely,

Lina and the PDC Team



(From right to left) Elizabeth Bush (Diagnostician and Research Associate Senior), Karlie Casper (undergraduate lab assistant), Riley Plfcan (undergraduate lab assistant) and Lina Rodriguez Salamanca (Plant Disease Clinic Manager and Diagnostician).

The PDC Team

Dr. Lina Rodriguez Salamanca and Ms. Elizabeth Bush perform diagnostics in the PDC. Lina has 9 years of plant diagnostic experience and Elizabeth has been diagnosing plant problems in the PDC for 19 years. They frequently consult VT/VCE agronomic, horticulture, entomology, and plant pathology specialists, located both on campus and at VT Agricultural and Research Extension Centers, as part of the diagnostic process—particularly for specialty crops, such as small fruit, tree fruit, and greenhouse crops, but also for row and vegetable crops. Our VT specialists' knowledge, input, and expertise are valued by the PDC team and greatly enhance the PDC diagnostic services.

During 2023, we had the pleasure of training and mentoring two undergraduate students who provided laboratory assistance in the PDC. We rely on undergraduate laboratory assistants for various support tasks (e.g., clerical and laboratory).

Client Breakdown

Type of Client Contact	
Email consultations	2978
Phone consultations	128
Physical sample	373
Physical & Digital samples	141
Digital only samples	30
Talks, webinar, workshops	412

Client type	No. of samples
Commercial grower (Producer)	237
Home grower	231
Commercial service professional	64
Government agency	2
Research	10
Total	544

Feedback from some of the PDC clients in 2023

See all our annual clientele survey results at <http://bit.ly/40iCCRB> , top comments:

From commercial growers:

“Helped me identify a disease to allow appropriate management.”

“The Plant Disease Clinic has been essential to our nursery, it has saved us so much time, effort, and money. I know I can always rely on assistance from the clinic...”

“The VT Plant disease clinic is a valuable service to ensure proper identification of plant disease.”

“They have helped our operation identify several pathogens over the years, which helps us form a proper pest management response. I save all diagnoses I receive, allowing us to look back at records and plan for future pathogen cycles.”

“Successful identification of problem pathogen. That certainty helped guide our decision making.”

“Positive impact by identifying what was wrong with plants and for how to address it so my plants would continue to grow.”

“I was baffled by what was happening with our crop. I contacted the Extension Agent and a local crop expert. Neither knew what was going on. The Plant Disease Clinic was able to diagnose the issue and offer possible directions for solutions. We chose one of the solutions and it worked. Our plants are now back on track!”

“They are always very helpful and go above and beyond when a diagnosis isn't simple. They do a great job communicating with other departments and contacts to help give the best diagnosis possible.”

“After receiving repeated inconclusive results from another lab, I switched to the VTech lab and immediately started receiving actionable results. This is now my go-to lab for pathogen testing.”

From service professionals:

“VDOF does not have the ability to test/confirm many plant diseases that impact our trees, so the VT Plant Disease Clinic offers an extremely valuable service to VDOF staff and the landowners we assist.”

“It's been a great service, It adds value for the client to know what we're dealing with. Trees are like us, they benefit from long term health care. The use of good products increases with improvements in tree condition.”

“They have helped me confirmed diagnosis for city owned trees. Allows me to come to a decision easier on what should be done for the tree.”

From home growers:

“I was pleased with the timeliness and detail of the diagnosis.”

“I really appreciate the timely return of diagnosis. They were very fast and convenient. Thank You for that!!!”

“The reports were helpful in identifying the underlying cause of the stress on the plants. A recommended solution, treatment and ongoing care were contained in the reports. I will rely on this service again in the future.”

“The clinic has been very helpful in following up after submitting my samples and especially when they had more questions for me or I needed to submit additional material. They seem very eager to help.”

“The clinic was very easy to work with and responded promptly. It gave me confidence that I had the right diagnosis and could then take appropriate action without any doubt.”

Not every plant problem requires a sample.

Some plant diseases have very characteristic symptoms or signs. Using a combination of your observation skills and the PDC's [Plant Problem Image Gallery \(https://apps.cals.vt.edu/ppig/\)](https://apps.cals.vt.edu/ppig/), one may be able to narrow down some suspects.

However, if a pesticide or other significant management tactic is warranted, it is advisable to have confirmation by the PDC, especially if the disease is a severe problem or to avoid a needless or inappropriate pesticide application. Timing of management tactics is critical in many cases, depending on the pathogen/pest.

Accurate diagnosis is foundational to implementing appropriate and best management practices. Since microorganisms cause plant diseases, it is advisable to obtain a diagnosis from a reputable plant diagnostic laboratory and not guess. With diagnostics comes great responsibility. Misdiagnosing a problem can impact our state's food and green industries and potentially lead to inappropriate and needless application of pesticides that negatively impact Virginia's ecosystem, non-target organisms and human health.

Not sure what to submit?

Check our website <https://bit.ly/VTplantclinic>; we have added lots of photo examples.

bit.ly/VTplantclinic



Digital submissions via your Extension office are a great place to start. This allows the PDC diagnostician to observe the problem in the nursery, landscape, or field and advise on exactly what type of physical sample to submit, saving in shipping and avoiding a resubmission. Refer to the Guidance on Submitting a Good Digital Sample section on the [submitting sample page](#), which details the range of images needed.

What the PDC can NOT do: Test for nutrients in plant tissue (must use private labs) or soil testing (goes to Virginia Tech Soil Testing Lab, <https://www.soiltest.vt.edu/>), test for chemical residue on plant tissues (must use a private lab), or recommend edibility of mushrooms or plants.



Want to learn more about common diseases? Our website has pages with the most up to date resources from PDC and VCE. on [Disease Alerts](#), [Plant Disease Publications](#), [Videos: Common Plant Diseases and Disease Management](#), [Boxwood Blight Task Force](#) and [Pest Management Guides](#).