

Tennessee State University
Otis L. Floyd Nursery Research Center
2024
Plant Disease Diagnosis Report



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In 2024, the TSUNRC Plant Pathology Laboratory diagnosed 657 plant samples from Tennessee (16 counties) and 10 other states (Fig. 1). Of the samples submitted, 88% were ornamental trees/shrubs (Fig. 2). The majority of samples (82%) came from three counties in Tennessee: Dekalb, Rutherford, and Warren (Fig. 3). The Tennessee Department of Agriculture Inspector was the top submitter of samples (56.9%), followed by researchers (36.5%), with the remainder coming from TSUNRC extension agents (2.3%), growers/nurseries (2.3%), companies/firms (1%), and homeowners/home gardeners (0.6%) (Fig. 4). More than 473 of the samples were either redbud, dogwood, or maple (Fig. 5), and there were also significant numbers of samples (four or more each) of arborvitae/cedar/juniper/pine, azalea, boxwood, crabapple, Ilex/holly, nandina, oak, and rhododendron. TSUNRC also received a few samples (1-3 each) of beech, cyrilla, crape myrtle, echinacea, ginkgo, gum, hackberry, halesia, hickory, hydrangea, illicium, lilac, magnolia, pawpaw, persian spire, prunus, serviceberry, sourwood, spruce, tulip poplar, weeping willow, witch hazel, and yew.

For the first time ever in Tennessee and the United States, the TSUNRC Plant Pathology Lab confirmed cedar root rot, nandina root rot, oak root rot, and tulip poplar root rot. The lab had several reports on these efforts accepted for publication by *Plant Disease*, the leading international journal for rapid reporting of research on new diseases, epidemics, and methods of disease control: “First report of *Phytophthium vexans* causing root rot of incense cedar in Tennessee and the United States,” “First report of *Pythium dissotocum* causing root rot on nandina in Tennessee and the United States,” “First report of *Phytophthium vexans* causing root rot on *Quercus bicolor* in Tennessee and the United States,” and “First report of *Phytophthium vexans* causing root rot on tulip poplar in Tennessee and the United States.”

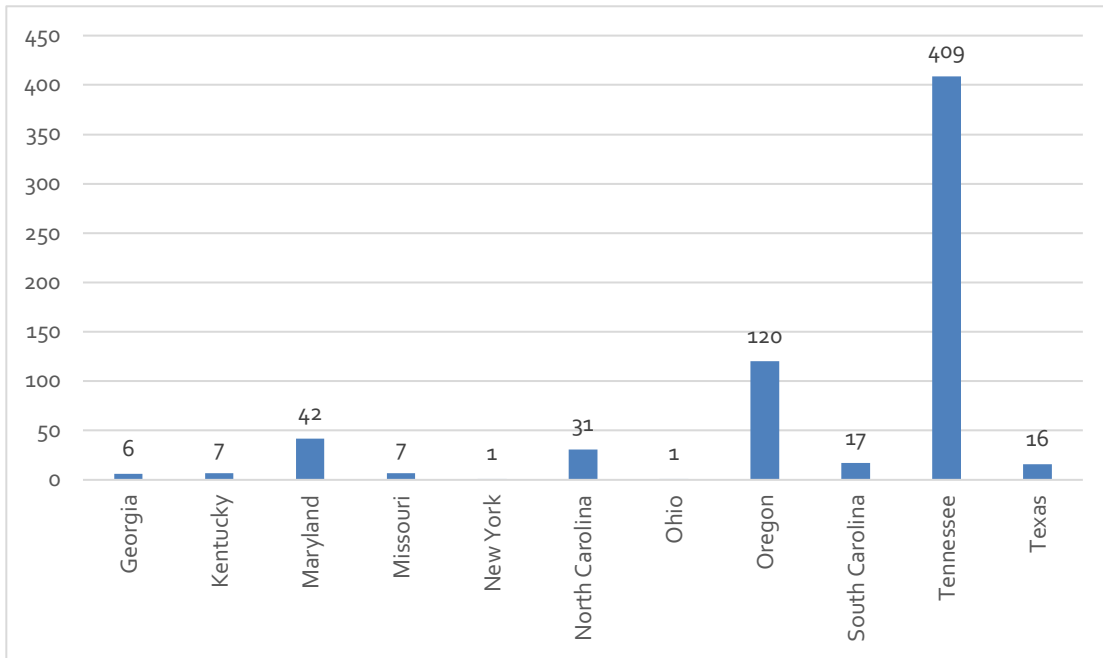


Fig 1. Distribution of samples, by state, diagnosed by the TSUNRC Plant Pathology Lab in 2024.

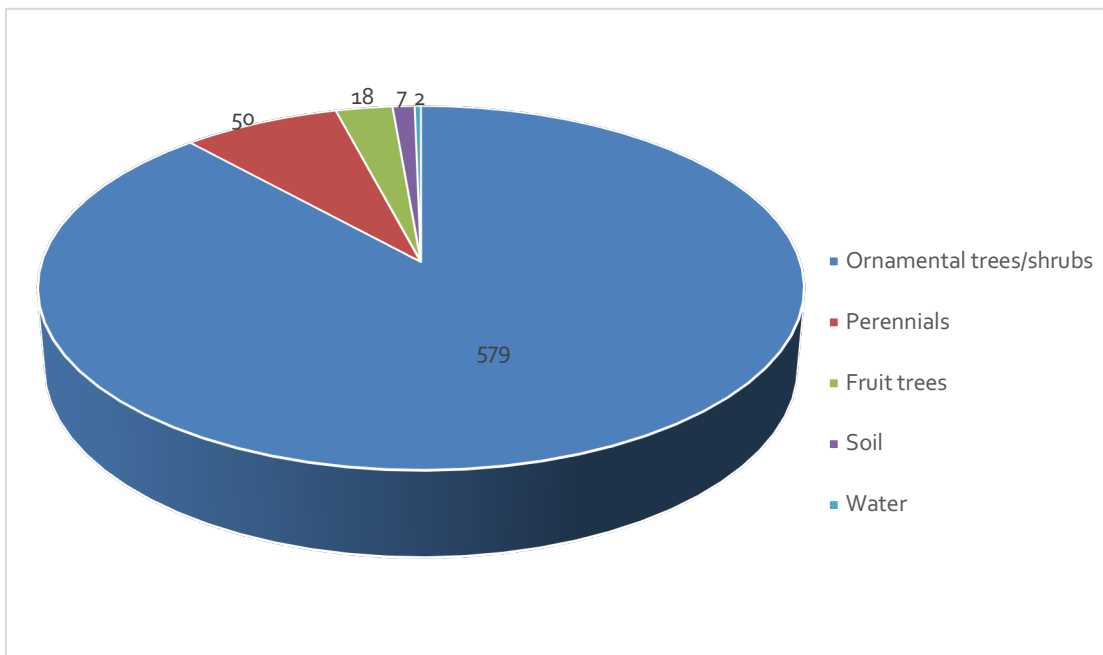


Fig. 2. Types and number of samples diagnosed by the TSUNRC Plant Pathology Lab in 2024.

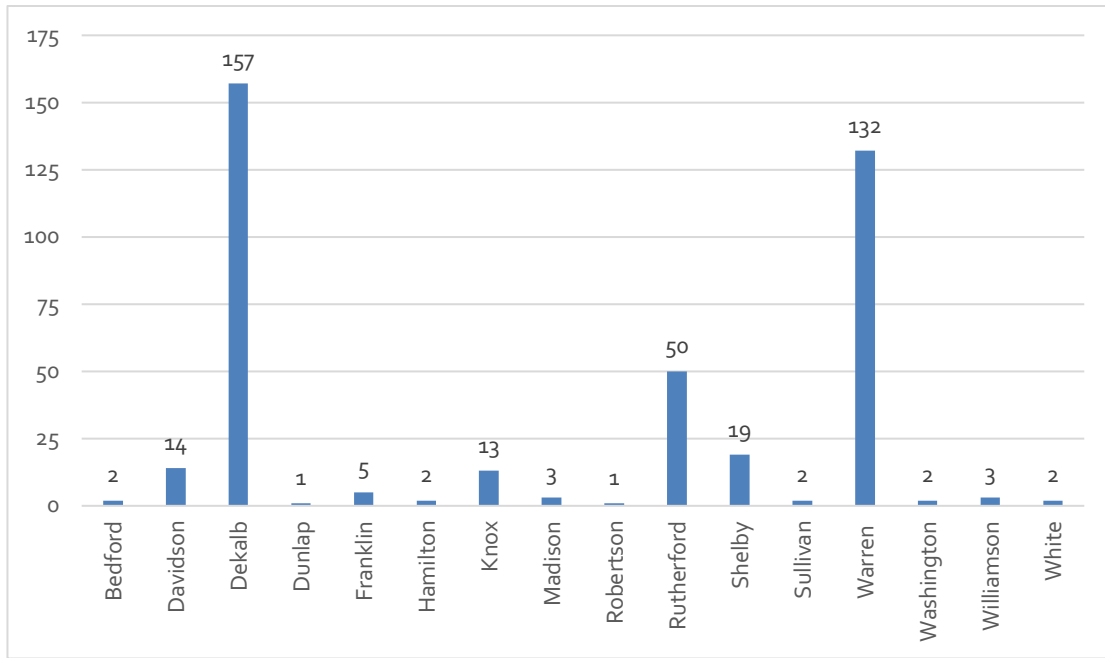


Fig. 3. Distribution of samples, by Tennessee county, diagnosed by the TSUNRC Plant Pathology Lab in 2024.

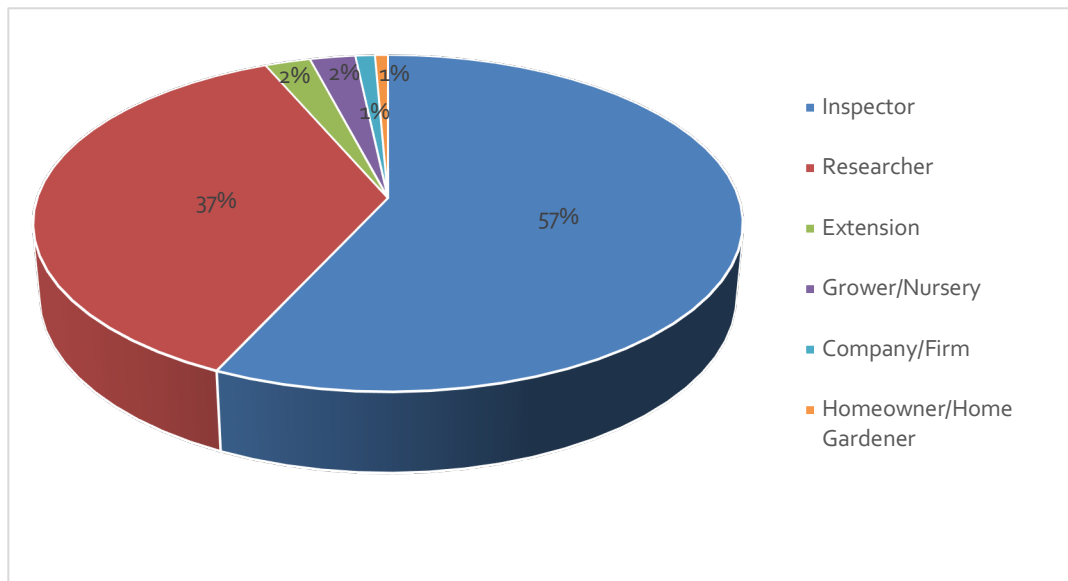


Fig. 4. Submitters of samples diagnosed by the TSUNRC Plant Pathology Lab in 2024.

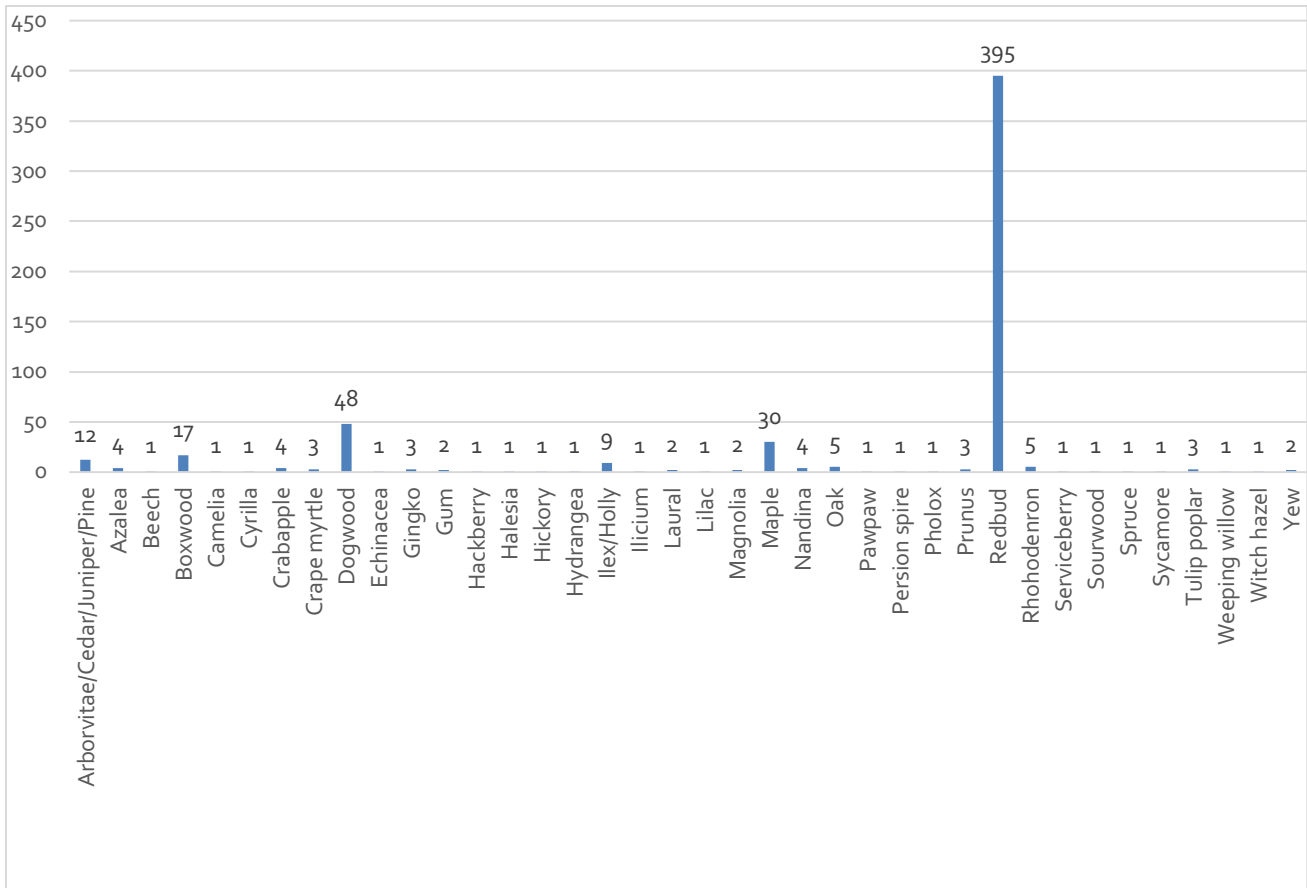


Fig. 5. Types of samples diagnosed by the TSUNRC Plant Pathology Lab in 2024.

Acknowledgments – We would like to extend our gratitude to the Tennessee Department of Agriculture Plant Pathologist – Dr. Prabha Liyanapathirana and Plant Inspectors, as well as growers for their contribution of the samples.

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