### 2024 PDDC Plant Disease Talks

Fun and Games at the PDDC!

Brian D. Hudelson **Department of Plant Pathology** University of Wisconsin-Madison/Extension







### Fun and Games at the PDDC! Location











### Russell Labs

Labs: Rm. 183, Rm. B37 Office: Rm. 290

### Fun and Games at the PDDC! Staff

- · Brian Hudelson (Director/Diagnostician)
- · Dante Tauscheck (Assistant Diagnostician)
- · Dixie Lang (IT/website/social media support)
- · Andy Witherell (General lab support)



### Fun and Games at the PDDC! **Diagnostic Services**

- Sample types
  - Digital photos
  - Physical samples
- · Diagnostic methods
  - Classical (culturing, moist chambers, microscopy, bioassays, etc.)
  - Serological (dip sticks, ELISA)
  - Molecular (PCR, DNA sequencing, cloning)
- · Reporting methods
  - Email (digital photos)
  - Written letter (physical samples)
  - Phone (critical diagnoses)

### Fun and Games at the PDDC! **Molecular Diagnostics**

- · Agrobacterium tumefaciens
- Bretziella fagacearum
- · Carlaviruses (genus and hops species)
- · Clavibacter michiganensis subsp. sepedonicus
- · Dickeya dianthicola/D. didantii/D. solani
- Pectobacterium carotovora/P. atrosepticum/P. wasabiae
- · Phakopsora pachyrhizi
- · Phytoplasmas (including cloning)
- Pseudoperonospora humuli
- · Tobacco rattle virus
- Verticillium spp. · Xanthomonas spp.

## Fun and Games at the PDDC! Diagnostic Fees

· Digital diagnosis fee: \$20



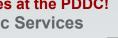
· Culturing fee: \$5 per medium per plant part

Serological test fees

- Dip stick: \$10

- FLISA: \$35

- · DNA/RNA test fees
  - \$35 for the first PCR reaction (includes extraction costs)
  - \$15 for each additional PCR reaction
  - \$35 for DNA sequencing





### Fun and Games at the PDDC! **Diagnostic Fees**

- · Free diagnostics: \$0
  - High economic impact disease samples: late blight
  - New/emerging/regulated disease samples
    - · Boxwood blight
    - Lipstick rust (Japanese apple rust/red star rust)
    - Sudden oak death/Ramorum blight
    - · Ralstonia wilt
  - Needs-based samples
    - Individuals
    - Schools
    - · Non-profits
  - Extension educational samples
    - Digital (all)
    - · Physical (limited numbers)

## Fun and Games at the PDDC! **Diagnostic Samples**

- Total samples 2023: 1005
  - Trees and shrubs: 65%
  - Vegetable: 12%
  - Fruit: 10%
  - Herbaceous ornamentals: 8%
  - Field and forage: 4%
  - Specialty crops: < 1%
  - Miscellaneous: < 1%
  - Soil: 0%



### Fun and Games at the PDDC! Instruction

- · PP559: Diseases of Economic Plants (Ornamentals)
- PP699: Plant Disease Diagnostics Clinic Practicum
- PP300: Introduction to Plant Pathology (Diagnostics)
- PP590: Plant Pathology Capstone
- PP354: Diagnosing and Monitoring Pest and Nutrient Status of Field Crops
- · PP558: Biology of Plant Pathogens
- PP875: Special Topics (Agricultural Oomycetes)
- PP990: Research
- Hort334: Greenhouse Production of Ornamental Plants
- Hort375: Special Topics
- Planting for a Greener World
  Arboriculture and Landscape Maintenance
- Farm and Industry Short Course: Plant Diseases

# Fun and Games at the PDDC! **Outreach Programs**

- **Oral presentations** 
  - On request programming
    - Master Gardener
    - Ornamental horticulture (consumer and commercial)
    - Fruit and vegetable (consumer)
    - Field and forage crops
  - Clinic-sponsored programming
    - · 2024 PDDC Plant Disease Talks
    - Ask the Experts: A Monthly Garden and Landscape Q & A Series



### Fun and Games at the PDDC! **Outreach Programs**

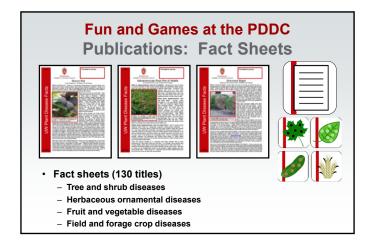
- · Trade shows/Booths
  - Garden & Landscape Expo
  - Ag Research Station Horticulture Field Days
  - Professional meetings
- · Mass media
  - Wisconsin Public Radio
  - (Garden Talk with Larry Meiller)
  - Wisconsin Public Television (The Wisconsin Gardener with Shelley Ryan)

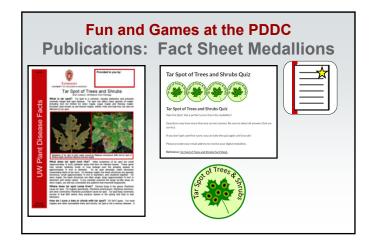




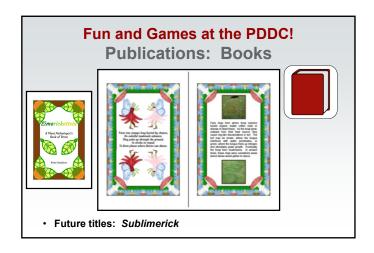
# Fun and Games at the PDDC! **PDDC** Website Plant Disease Diagnostics Clinic https://pddc.wisc.edu

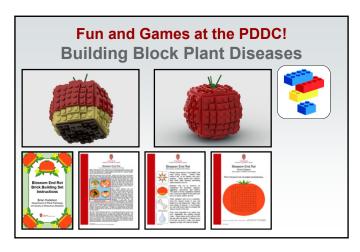








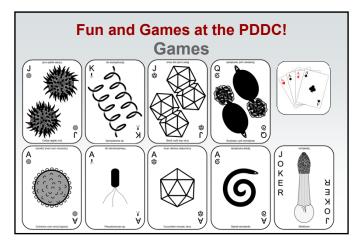














# Fun and Games at the PDDC! Questions? Plant Disease Diagnostics Clinic Department of Plant Pathology University of Wisconsin-Madison 1630 Linden Drive Madison, WI 53706-1598 (608) 262-2863 pddc@wisc.edu https://pddc.wisc.edu Follow on Facebook, Twitter, YouTube: @UWPDDC Subscribe to the PDDC Listserv: UWPDDCLearn