Which Plant Pathogen Are You?

Which Plant Pathogen Are You? is a "personality quiz" aimed at engaging audiences and creating awareness about plant pathology. It can also be used as an ice-breaker or classroom activity.

The activity can also be used on a deeper level to discuss the concepts of pathogen and the environment, methods of dispersal or dissemination, and host range. It can easily be adapted or modified for specific pathogen groups or plants - create your own game!

This is based on the American Society for Microbiology's educational activity, What Microbe Are You? A full lesson plan for the ASM activity can be found online: www.asm.org/index.php/educators/k-12-classroom-activities/23-education/k-12-teachers/8214-what-microbe-are-you

This version of the quiz is a more Florida centric version of the original APS version, meaning many Florida plant diseases and pathogens are featured. There are a series of questions to answer that will lead you to a number which corresponds to a pathogen and the disease(s) that it causes.

You can provide participants with "trading cards" with the name of their particular plant pathogen. There are 30 cards representing 30 pathogens/diseases. There is a “card” for each pathogen or disease. For most, but not all pathogens and diseases, next to the credit for the photo (bottom left corner), there is a letter plus number listed. This corresponds to a publication about the pathogen/disease in the UF/IFAS Electronic Data Information Source (EDIS). When you go to the EDIS home page (http://edis.ifas.ufl.edu), type in the letter/number in the search box.

Again, most, but not all, will have an EDIS document, which means that the disease does occur in Florida or has the strong possibility of occurring in Florida. Others are very common or very important diseases elsewhere in the world, but not in Florida. For example, coffee rust is included, as some of us in our coffee every day!

EDIS publications are reviewed at least every 3 years to keep the information as current as possible. They are written by the experts in their field of science. You are very welcome to use the information and the photos in EDIS documents, but please acknowledge where the information and photos are obtained.
Which PLANT PATHOGEN Are You?

START by selecting “I prefer to work . . .”
- Solo ➔
- As Part of a Team ➔

I prefer to work . . .

S O L O

I would rather be . . .

Hiking in the woods
My favorite activity is . . .
- Flying a kite
- Walking in the rain
- Digging in the dirt

Swimming in the ocean
My favorite activity is . . .
- Flying a kite
- Walking in the rain
- Digging in the dirt

Sitting in my favorite restaurant
My favorite activity is . . .
- Flying a kite
- Walking in the rain
- Digging in the dirt

I prefer to work . . .

A S P A R T O F A T E A M

I would rather be . . .

At home in my garden
My favorite scent is . . .
- Fresh air
- The scent of rain
- Rich soil

Traveling around the world
My favorite scent is . . .
- Fresh air
- The scent of rain
- Rich soil

Take this fun quiz and find out which plant pathogen matches your personality!

Department of Plant Pathology
Which Plant Pathogen Are YOU?

#16 I am... *Phytophthora capsici*

Spots, rots and blights
I am a fungus-like pathogen (oomycete) that loves my fruits and veggies - except lima beans.

Wet, humid conditions help me thrive. I can cause seed rots, seedling blights, leaf spots, fruit rots – look at this zucchini:

![Image of zucchini with Phytophthora capsici infection]

Photo: UF/IFAS, PP176

Oomycota

Electronic Data Information System (EDIS)
http://edis.ifas.ufl.edu
EDIS = Electronic Data Information Source: http://edis.ifas.ufl.edu/

University of Florida/IFAS Extension

Below are EDIS documents referenced in the “Which Plant Pathogen Are You?” personality quiz.

- [http://edis.ifas.ufl.edu/fr386]: Bot Canker of Oak in Florida Caused by Diplodia corticola and D. quercivora
- [http://edis.ifas.ufl.edu/pp54]: Ganoderma Butt Rot of Palms
- [http://edis.ifas.ufl.edu/pp194]: Citrus Canker
- [http://edis.ifas.ufl.edu/pp308]: Ornamental Ficus Diseases: Identification and Control in Commercial Greenhouse Operations
- [http://edis.ifas.ufl.edu/for236]: Pitch Canker Disease of Pines
- [http://edis.ifas.ufl.edu/enh217]: Armillaria Root Rot (Also known as Mushroom Root Rot, Shoestring Root Rot, Honey Mushroom Rot)
- [http://edis.ifas.ufl.edu/]: Southern Wilt of Geranium
- [http://edis.ifas.ufl.edu/eny061]: Susceptibility of Flowers and Bedding Plants to Root-Knot Nematodes
- [http://edis.ifas.ufl.edu/pp281]: Citrus Black Spot: No Longer an Exotic Disease
- [http://edis.ifas.ufl.edu/pp152]: Alternaria Brown Spot (Citrus)
- [http://edis.ifas.ufl.edu/pp176]: Vegetable Diseases Caused by Phytophthora capsici in Florida
- [http://edis.ifas.ufl.edu/pp309]: Impatiens Downy Mildew
- [http://edis.ifas.ufl.edu/pp146]: Lethal Yellowing of Palms
- [http://edis.ifas.ufl.edu/pp121]: A Series on Diseases in the Florida Vegetable Garden: TOMATO
- [http://edis.ifas.ufl.edu/hs371]: Citrus Canker and Greening Handling Protocols for Master Gardener Plant Clinics
- [http://edis.ifas.ufl.edu/pp212]: Tospoviruses (Family Bunyaviridae, Genus Tospovirus)
- [http://edis.ifas.ufl.edu/lh079]: Take-all Root Rot
- [http://edis.ifas.ufl.edu/hs1136]: Redbay Ambrosia Beetle-Laurel Wilt Pathogen: A Potential Major Problem for the Florida Avocado Industry
- [http://edis.ifas.ufl.edu/pp317]: Rose Rosette Disease: A New Disease of Roses in Florida
- [http://edis.ifas.ufl.edu/in174]: Xylella Fastidiosa Diseases and Their Leafhopper Vectors
<table>
<thead>
<tr>
<th><strong>#1</strong> I am . . . <strong>Diplodia corticola</strong></th>
<th><strong>#2</strong> I am . . . <strong>Ganoderma zonatum</strong></th>
<th><strong>#3</strong> I am . . . <strong>Xanthomonas citri</strong> subsp. citri</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bot Canker of Oak</strong></td>
<td><strong>Butt Rot of Palms</strong></td>
<td><strong>Citrus Canker</strong></td>
</tr>
<tr>
<td>I’m kinda picky! I only like live oaks in Florida. My nickname is “Bot” because I belong to the fungal family Botryosphaeriaceae. Windy kite-flying weather helps me spread my spores, but stressed trees are more susceptible.</td>
<td>I’m a really bad dude and not picky - I can kill all palm trees in Florida! My spores are produced in a conk that emerges from the trunk. The spores blow with the wind to spread throughout the landscape. You can’t escape me!</td>
<td>I’m a bacterial pathogen that causes a serious disease of citrus. I love warm, moist conditions! To help prevent the spread of me around Florida, homeowners are required to purchase citrus trees from a certified nursery.</td>
</tr>
<tr>
<td><img src="https://example.com/diplodia_corticola_photo.png" alt="Photo" /></td>
<td><img src="https://example.com/ganoderma_zonatum_photo.png" alt="Photo" /></td>
<td><img src="https://example.com/xanthomonas_citri_subsp_citri_photo.png" alt="Photo" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>#4</strong> I am . . . <strong>Phytophthora cinnamomi</strong></th>
<th><strong>#5</strong> I am . . . <strong>Fusarium circinatum</strong></th>
<th><strong>#6</strong> I am . . . <strong>Armillaria mellea</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phytophthora root rot</strong></td>
<td><strong>Pitch canker</strong></td>
<td><strong>Armillaria root disease, shoestring root rot</strong></td>
</tr>
<tr>
<td>I like hiking in the woods. I’ll infect over 100 hosts, including azalea, rhododendron, eucalyptus, avocado, pine, juniper, hemlock, spruce, fir, cedar, and cypress (not picky). I like the rain – it creates the wet soils that I love.</td>
<td>I am a fungus that loves to hike in the woods. I am kind of picky – I only infect pine trees and Douglas-firs. After infection, I can cause the pine to exude a large amount of resin – yuck! No part of the tree is safe from me. I will kill seedlings too!</td>
<td>I am a soil-borne fungus that infects a wide host range of trees, vines and woody species. I cause a white rot of wood and I produce “honey mushrooms” at the base of trees.</td>
</tr>
<tr>
<td><img src="https://example.com/phytophthora_cinnamomi_photo.png" alt="Photo" /></td>
<td><img src="https://example.com/fusarium_circinatum_photo.png" alt="Photo" /></td>
<td><img src="https://example.com/armillaria_mellea_photo.png" alt="Photo" /></td>
</tr>
</tbody>
</table>

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**Ascomycota**

**Basidiomycota**

**Oomycota**
**#7 I am . . . Mycosphaerella fijiensis**

*Black sigatoka of banana, black leaf streak*

I’m a fungus, and I’m partial to the tropics. A nice wet, windy day will help me spread my spores. I’m pretty picky – banana is my fav food - especially Cavendish, the world’s major commercial variety.

Photo: Scot Nelson, University of Hawaii

Ascomycota

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**#8 I am . . . Lasiodiplodia theobromae**

*Rot and Dieback*

I love the tropics, but I’m not a picky eater - I cause rotting and dieback in grapes, citrus, and about 500 host plants. I’ve even been known to infect a human toenail or two!

Photo: Monica Elliott, UF/IFAS

Ascomycota

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**#9 I am . . . Hemileia vastatrix**

*Coffee rust*

I’m found in the tropics, or wherever coffee is grown. You could say I’m a picky eater - I literally live on coffee. I bet you do too!

Photo: Smartse via Wikimedia Commons

Basidiomycota

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**#10 I am . . . Ralstonia solanacearum**

*Bacterial wilt of solanaceous plants & some ornamentals, potato brown rot of potato and more . . .*

I am a bacterial pathogen and I can infect *hundreds* of plant species (I’m not picky)! I can be found in tropical, sub-tropical & some temperate regions. Look what I did to this geranium!

Photo: Tim Momol, UF/IFAS, PP206

Ascomycota

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**#11 I am . . . Heterodera spp.**

*Cyst nematode*

I am a plant parasitic nematode. Each of my relatives (species) tend to feed on and infect the roots of specific plants (digging in the dirt) – e.g., soybean cyst nematode and soybean, potato cyst nematode and potato.

Photo: USDA ARS

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**#12 I am . . . Meloidogyne spp.**

*Root knot nematode*

I am a plant parasitic nematode, and I must admit I cause a lot of damage to agricultural crops world-wide. I like digging in the dirt . . . I’ve been known to feed on the roots of nearly 2000 different plants (not picky!)

Photo: USDA ARS

Meloidogyne incognita
#13 I am . . .  
*Guignardia citricarpa*  
**Citrus black spot**  
My disease name describes me well. I’m an important fungal disease of citrus, and there’s nothing like a wet, windy day to help me spread my spores!

![Image](photo:UF/IFAS, PP281)

#14 I am . . .  
*Alternaria alternata*  
**Spots, rots and blights**  
I’m a fungus that can infect hundreds of plants, including citrus and papaya. I’m also associated with lung infections and mold allergies (I’m not picky!) I can be found in the air and my spores are spread in kite-flying weather.

![Image](photo:UF/IFAS, PP152)

#15 I am . . .  
*Magnaporthe oryzae*  
**Rice blast**  
I’m one of the most important and devastating diseases worldwide. I am a fungus that infects rice (pretty picky eater). I thrive under warm, wet and humid conditions.

![Image](photo:USDA ARS)

#16 I am . . .  
*Phytophthora capsici*  
**Spots, rots and blights**  
I am a fungus-like pathogen (oomycete) that loves my fruits and veggies - except lima beans.  
Wet, humid conditions help me thrive. I can cause seed rots, seedling blights, leaf spots, fruit rots – look at this zucchini!

![Image](photo:UF/IFAS, PP176)

#17 I am . . .  
*Plasmopara obducens*  
**Impatiens Downy Mildew**  
I am a fungus-like pathogen that adores pretty impatiens, especially the young ones you plant in your flower beds. I cover them with my mycelia (and then kill them)!

![Image](photo:Ian Maguire, UF/IFAS, PP309)

#18 I am . . .  
*Agrobacterium tumefaciens*  
**Crown gall**  
I am a bacterial pathogen, commonly found in the soil (digging in the dirt), where I infect the roots of many fruit and nut trees and dozens of other plant species (not a picky eater!). I am nature’s genetic engineer and can be useful in the lab!

![Image](photo:David Norman, UF/IFAS, PP308)

Photo: Ascomycota

Photo: Ian Maguire, UF/IFAS, PP309  
Oomycota

Photo: USDA ARS  
Ascomycota

Photo: David Norman, UF/IFAS, PP308  
Oomycota
#19 I am . . . *Candidatus Phytoplasma palmae*  
**Lethal yellowing (LY)**  
I like to work as part of a team: I am a phytoplasma vectored by a plant-hopper (insect). I infect mainly coconut palms (kind of picky) but have been documented in over 35 other palm species. I am only found in the Caribbean Basin and Florida.

Photo: Nigel Harrison, UF/IFAS, PP146

#20 I am . . . *Tomato yellow leaf curl virus (TYLCV)*  
I mostly infect tomatoes, but have been known to infect other veggie plants. I am transmitted by a whitefly species. Young, diseased plants are severely stunted. Often, fruit set is poor or non-existent. No ketchup for your French fries!

Photo: UF/IFAS, PP121

#21 I am . . . *Candidatus Liberibacter asiaticus*  
**Citrus Greening or Huanglongbing**  
I am a bacterial pathogen vectored by a psyllid (insect). I only infect citrus trees. But, I am another bad dude of the plant pathology world – citrus be afraid, be very afraid!

Photo: UF/IFAS, HS371

#22 I am . . . *Tomato spotted wilt virus (TSWV)*  
I infect over 1000 species, including many vegetables, peanut and tobacco (I’m not a picky eater). I am vectored by thrips (we work as a team). This is what I do to tomatoes!

Photo: Hank Dankers, UF/IFAS, PP212

#23 I am . . . *Gaeumannomyces graminis var. graminis*  
**Take-all Root Rot**  
I am a soil-borne disease of many Florida turfgrasses, such as St. Augustinegrass and bermudagrass. Put me together with nematodes, and we will party all night!

Photo: UF/IFAS, LH079

#24 I am . . . *Xiphinema americanum*  
**Dagger nematode**  
I am one of the most important plant parasitic nematodes in agriculture. I’m found in the soil and I’ll eat corn and soybean, virtually all fruits, conifers, grasses, ornamentals and more (not a picky eater). I like to work as part of a team: I’m a vector of Tomato ringspot virus and other viruses.

Photo: Tesfamarian Mengistu, UF/IFAS, IN1097
#25 I am... *Puccinia graminis*

**Stem rust**
I am a fungal disease of wheat and barley. Throughout history, I have been a threat to the world supply of wheat, although farmers now grow disease-resistant varieties. Wheat and an alternate host, barberry, help me complete my complex life cycle (but I can survive on wheat alone). My windborne spores like to travel the world.

#26 I am... *Raffaelea lauricola*

**Laurel wilt**
Laurel wilt is a fungus disease of the laurel family – redbay, sassafras etc., but avocados may be my most well-known host. I am spread by the redbay ambrosia beetle (we work as a team).
I am thought to be native to Asia, now I’m also in the southeast US (world traveler).

#27 I am... *Rose rosette virus*

**Rose Rosette Disease**
I’m picky – I only like roses, both wild and cultivated. I like to work as part of a team – I am spread by an eriophyid mite *Phyllocoptes fructiphilus*.
I cause a wide range of symptoms on roses. The severity of the disease depends on the rose species and cultivar.

#28 I am... *Xylella fastidiosa*

I am a bacterial pathogen and I’m creating news headlines around the world: Olive Quick Decline Syndrome in Italy, Pierce’s disease in grapes, Citrus variegated chlorosis in Brazil, and bacterial leaf scorchers in many trees. I am spread by leafhoppers (we work as a team).

#29 I am... *Fusarium oxysporum*

**Fusarium wilt**
I am found in soils worldwide, often part of a root rot complex and/or assoc. with nematodes (team player). Although I’m diverse, formae speciales (based on host plant) generally have a limited host range, e.g.- *F. oxysporum* f. sp. *lycopersici* causes vascular wilt in tomato.

#30 I am... *Rhizoctonia solani*

**Rhizoctonia damping-off, blight and rot**
I am a soil-borne fungus found around the world. I’m not a picky eater (I have a broad host range – turfgrass, potatoes, cereals, sugarbeet, cucumber, rice). I like to work as part of a team (*R. solani* is common in root rot complexes and seedling blights).