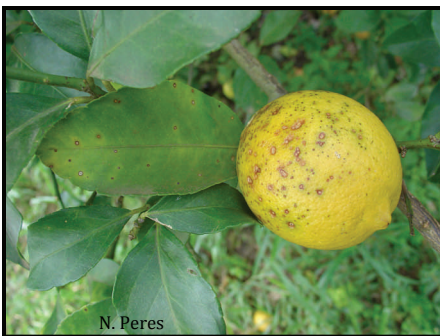


## CITRUS BLACK SPOT

- Currently found in Argentina, Australia, Brazil, China, Indonesia, Japan, Kenya, Mozambique, Nigeria, Peru, Philippines, South Africa, Swaziland, Taiwan, Uruguay, Venezuela, Zimbabwe
- Fungal disease caused by the fungus *Guignardia citricarpa*
- Affects all varieties of citrus except Tahiti limes
- Grapefruit and valencia oranges are highly susceptible
- Causes necrotic lesions on fruit
- If severe, may cause extensive premature fruit drop
- Does not cause fruit decay
- Various symptoms such as hard spot, false melanose, and virulent spot
- Lesions begin as small orange or red spots and then enlarge with black edges
- Leaf and stem symptoms are uncommon except on lemons
- If found, leaf and stem lesions may have small, round, sunken necrotic spots with gray centers
- A combination of warm, wet conditions, presence of susceptible fruit, *and* abundant inoculum are all needed for disease spread
- Florida's climate provides conditions favorable for black spot if introduced into the state



N. Peres

## CITRUS LEPROSIS

- Currently found in Brazil and other South and Central American countries
- Has not been reported in Florida since 1925
- Viral disease transmitted by *Brevipalpus* mites
- *Brevipalpus* mites are commonly found in Florida
- Affects primarily sweet oranges and manadrins, but sour oranges are also susceptible
- Leaf lesions become chlorotic first and then may become brown with or without a necrotic center
- Leaf symptoms smooth to touch
- Causes bark scaling and twig dieback
- Premature fruit drop with numerous lesions
- Flat or depressed lesions with yellow halo on fruit, often with brown centers
- Disease will only spread when the pathogen *and* mites are present



## CTV-STEM PITTING

- Found in Asia, Australia, South Africa, Brazil, Columbia, and many other citrus-growing areas
- Viral disease caused by specific strains of *Citrus tristeza virus* (CTV)
- Spread by the brown citrus aphid
- May cause stunting and tree decline
- When the bark is removed, the trunk, limbs and twigs may have longitudinal pits in the wood causing a rope-like appearance
- No resistant varieties, but susceptibility varies
- Limes and grapefruit are most susceptible



## SWEET ORANGE SCAB

- Currently found in Argentina, Bolivia, Brazil, Ecuador, Paraguay, and Uruguay
- Fungus disease caused by the fungus *Elsinoe australis*
- Symptoms only found on fruit
- Affects all sweet oranges and some tangerine cultivars
- Young fruit have corky, wart-like pustules; tan to gray in color
- Lesions become smoother as fruit mature



For more information, please contact the UF/IFAS Citrus Research and Education Center in Lake Alfred at 863-956-1151

## CITRUS VARIEGATED CHLOROSIS (CVC)

- Currently found in Brazil, Argentina, and Paraguay
- Bacterial disease caused by *Xylella fastidiosa*
- Transmitted by sharpshooter leafhoppers or grafting; seed transmission is uncertain
- Sweet oranges are the most susceptible
- Grapefruit, mandarins, mandarin hybrids, and limes show less severe symptoms
- Rangpur lime, lemons, citron, and pummelo are tolerant to the disease
- Causes severe leaf chlorosis, reddish brown lesions on the lower side that correspond to yellow areas on the upper surface
- Leaf symptoms may resemble zinc deficiency in early stages
- Stems are unaffected by CVC
- Infected fruit will become hard and have a high acid content; may exhibit sunburn damage
- Fruit is not usable in fresh or processing markets
- Fruit color change is normal
- Infected trees may have an off-season bloom



## GROWER RESOURCES

- Exotic Diseases Laminated Sheet
- Compendium of Citrus Diseases, 2nd Edition, APS Press, Minneapolis, Minnesota
- UF/IFAS EDIS documents  
<http://edis.ifas.ufl.edu/>
- UF/IFAS Citrus Research and Education Center  
<http://www.crec.ifas.ufl.edu>

## REPORT HIGH SUSPECTS

If you suspect your citrus tree may have one of these diseases, please contact your local county extension office or the Florida Division of Plant Industry  
1-800-282-5153

## CONTACTS

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## EXOTIC CITRUS DISEASES



**Citrus Blackspot**

**Sweet Orange Scab**

**Citrus Leprosis Virus**

**Citrus Variegated Chlorosis**

**Citrus Tristeza Virus Stem Pitting**



CH202

Early detection is the solution  
to protecting Florida citrus

**UF** UNIVERSITY of  
**FLORIDA**  
IFAS Extension

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