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

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

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

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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

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EXOTIC CITRUS DISEASES

Early detection is the solution to protecting Florida citrus

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Citrus Blackspot
Sweet Orange Scab
Citrus Leprosis Virus
Citrus Variegated Chlorosis
Citrus Tristeza Virus Stem Pitting

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