CITRUS VARIEGATED CHLOROSIS (CVC)

- Currently found in Brazil, Argentina, Costa Rica, and Paraguay
- Bacterial disease caused by Xylella fastidiosa subsp. pauca
- Transmitted by sharpshooter leafhoppers or grafting
- Not seed transmissible
- 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

EXOTIC CITRUS DISEASES

1. Sweet Orange Scab
2. Citrus Leprosis Virus
3. Citrus Variegated Chlorosis
4. Citrus Tristeza Virus Stem Pitting
5. Pseudocercospora Fruit & Leaf Spot

Early detection is the solution to protecting Florida citrus

July 2019
**PSEUDOCERCOSPORA FRUIT AND LEAF SPOT**

- Currently found in sub-Saharan Africa, Comoros Islands, and Yemen, but not South Africa
- Fungal disease caused by *Pseudocercospora angolensis*
- Affects all varieties of citrus
- Highly susceptible varieties include grapefruit, orange, pummelo, and mandarin
- Fruit lesions are circular to irregularly shaped
- Young fruit has nipple-like lesions with yellow halo
- Young fruit can become mummified
- Mature fruit lesions are dark brown to black and generally flat or sunken with a yellow halo
- Leaf symptoms are circular to irregularly shaped lesions that can coalesce
- Flat leaf lesions with brown or grayish center surrounded by a yellow halo
- Young flush can be killed and leaf drop can occur
- Leaves are the main source of inoculum
- Spores dispersed long distances by wind
- Short-distance spread by rain-splash
- Often spread with infected plant material

**CITRUS LEPROSIS**

- Currently found in Mexico, 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
- Primarily affects sweet oranges and mandarins, 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

**SWEET ORANGE SCAB**

- Currently found in Argentina, Bolivia, Brazil, Ecuador, Paraguay, and Uruguay
- Fungal disease caused by *Elsinoë 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
- Mature fruit lesions become smoother and can resemble wind scar

**CTV-STEM PITTING**

- Found in Asia, Australia, South Africa, Brazil, Colombia, and many other citrus-growing areas
- Viral disease caused by specific isolates of *Citrus tristeza virus* (CTV)
- Spread by different aphid species, mainly 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

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

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