Chinese Elm  
*Ulmus parvifolia*

**Propagation**

Chinese elm is propagated by semi-hardwood stem tip cuttings taken in the summer. Rooting should occur in 8-10 weeks under intermittent mist.

**Pests and Diseases**

The current Insect Management Guide for Commercial Foliage and Woody Ornamentals can be found at [http://edis.ifas.ufl.edu/IG012](http://edis.ifas.ufl.edu/IG012). The current Professional Disease Management Guide for Ornamental Plants can be found at [http://edis.ifas.ufl.edu/PP123](http://edis.ifas.ufl.edu/PP123).

**Anthracnose or Elm Black Spot** *(Stegophora ulmea)*

**Recognition:** Small yellow spots initially develop on the upper surface of leaves in spring and may expand and coalesce to blight entire leaves and petioles, girdling shoot growth. Repeated infections in early summer result in premature defoliation.

**Contributing factors:** The fungus overwinters in dead leaves on the ground and in dormant buds, and spores are released in spring to infect new growth. Splashing rain helps to spread the spores.

**Management recommendations:** Remove leaf debris and dead shoots from the trees during the winter. Avoid tight spacing and overhead irrigation. Preventive fungicide applications at budbreak in spring, and at regular intervals until leaves are fully developed, may be required for susceptible cultivars.
Powdery Mildew (*Oidium* spp.)

**Recognition:** This fungal disease starts on young leaves as patchy raised blister-like areas that become covered with grayish-white powder. It may cause stunting, distortion of leaves, yellowing of leaves, premature leaf fall and a general decline in plant growth.

**Contributing factors:** Damp, shady conditions, overcrowded growth, poor air circulation and overhead irrigation (particularly when irrigated at night).

**Management recommendations:** Use resistant or tolerant varieties, prune for good air circulation, irrigate in the morning, prune out affected plant parts and apply protective fungicides like copper sulfate at first sign of infection.

Trunk Canker (*Phytophthora* sp., *Botryosphaeria* spp., *Nectria* sp.)

**Recognition:** Cankers are areas of bark that are slightly sunken and water soaked with inner bark that has changed from light tan to reddish brown or brownish black. Small twigs may be girdled and killed. There is usually a sharp division between healthy and diseased tissue as the canker dries, cracks and pulls away from the margin and eventually falls off to reveal dead sapwood beneath. Small red to black fungal fruiting bodies may develop in the diseased tissue.

**Contributing factors:** Often associated with nursery practices that injure bark tissue and on cold-damaged tissue.

**Management recommendations:** Avoid bark injury. Remove all dead or diseased branches without leaving stubs or flush cuts. To prevent sunscald, protect the trunks of thin-barked elms from direct sunlight in late winter or if blown over. Chemical controls are generally not effective for prevention or control.
Borers (trunk)

Recognition: Several types of beetles will attack elm. Small holes in the trunk or limbs with fine sawdust indicate the presence of beetles. The elm borer feeds under the bark and girdles the trunk. The dogwood twig borer, *Oberea tripunctata*, is a longhorn beetle that infests the twigs of elm. The larva tunnel through the terminal twigs and cut small holes to the outside from which they expel sawdust and feces. Infested twigs are girdled and killed by the female when she lays eggs. Infested twigs wilt and hang on the tree or drop to the ground.

Contributing factors: Borers nearly always attack unhealthy or stressed plants or trees.

Management recommendations: Natural enemies attack boring beetles, but do not reduce them to low levels in nursery stock. Typically, borers must be controlled with preventative insecticide treatments, because, once the insects are under the bark, they are difficult to control. Pay particular attention to plants showing signs of stress such as wilting, disease infection or injury from equipment. Observe trees and woody plants for sap stains, holes in the bark, blistered, peeling or spongy bark areas, especially on plants that are stressed or have been subjected to trunk injury. Carry out all approved horticultural practices to promote plant vigor and health to minimize borer infestations. Current pesticide recommendations can be found at [http://edis.ifas.ufl.edu/IG012](http://edis.ifas.ufl.edu/IG012).

Eriophyid mites

Recognition: Eriophyid mites are microscopic worm like insects with only two pairs of legs and are primarily spread by wind. Infestations are usually identified by the distortion of leaves.

Contributing factors: Eriophyid mites are host specific and will not attack other plants. Infested plants nearby will act as a source of reinfestation.

Management recommendations: Prune out and destroy infested twigs to control and remove the adults. If the infestation is severe, a dormant oil mixture or a miticide should be used. Current pesticide recommendations can be found at [http://edis.ifas.ufl.edu/IG012](http://edis.ifas.ufl.edu/IG012).
Leaf Beetles

**Recognition:** Leaf beetles skeletonize leaves and are general feeders during the summer months. The greater elm leaf beetle in the photographs below is one of several beetles that may be found on elm.

**Management recommendations:** There are some natural predators, but these are usually not sufficient to control beetles in the nursery. Current pesticide recommendations can be found at [http://edis.ifas.ufl.edu/IG012](http://edis.ifas.ufl.edu/IG012).

Scale (16 species, European fruit lecanium most common)

**Recognition:** Scale can be recognized on the stems as bumps on the twigs. Live scales are moist when rubbed between your fingers, whereas dead scales are dry and crusty. The photo to the left is of Lecanium scale.

**Contributing factors:** unknown.

**Management recommendations:** The outer covering protects adult scales. Smothering oil sprays or systemic chemicals are required to control them. Contact sprays, should be targeted to the crawler stage. Current pesticide recommendations can be found at [http://edis.ifas.ufl.edu/IG012](http://edis.ifas.ufl.edu/IG012).
Sources


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