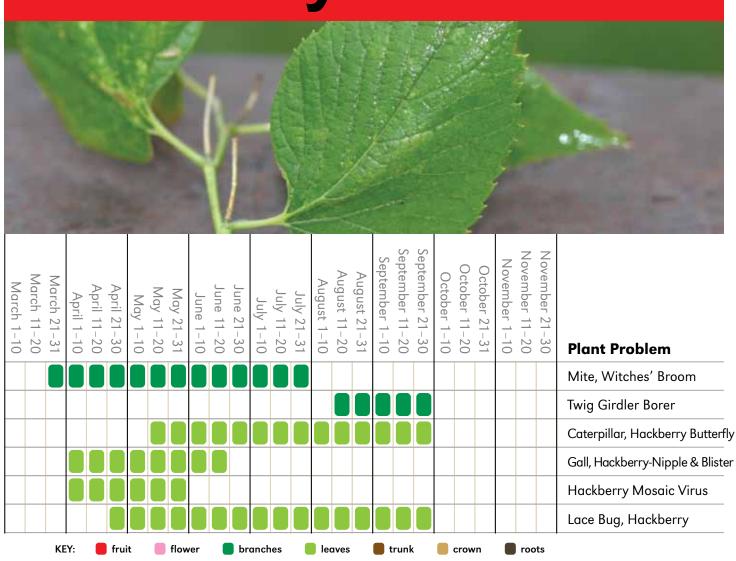
Hackberry



### **Plant Problem**

## Signs/Symptoms

### **Treatment**

Mite, Witches' Broom



Branches develop dense, unsightly masses of broom-like growth with multiple buds and shoots that are mainly devoid of leaves and also infested with a powdery mildew fungus. Microscopic, worm-like eriophyid mites overwinter in brooms and reinfest new buds each spring, causing broom development. Infestations are not practical to control, and they usually are not harmful. In young trees, prune out brooms to restore correct growth.

# **Plant Problem**

## Signs/Symptoms

## Treatment

Twig Girdler Borer



In late summer twigs about onehalf inch in diameter are found on the ground. They are cleanly cut around the outside as if by a saw blade, except at the center, where they break. Gather and destroy severed twigs as they contain eggs of this nuisance longhorned beetle pest. In cases where significant damage occurs annually and disfigures growth of young trees, spray with a residual insecticide when beetle activity is first detected.

Caterpillar, Hackberry Butterfly



Ragged holes in leaves. The greenish, pale-striped caterpillars have a green head with two dark, spiny horns at the top, and a pair of greenish appendages at the end of the body.

Not often controlled, as infestations are scattered, and trees can easily sustain injury. The adult butterflies are quite pretty, and two common species are the tawny emperor and the hackberry emperor. They are both orange-brown with black and white spots.

Gall, Hackberry-Nipple and Blister



Raised bumps or nipple shaped green galls clustered on lower surfaces of leaves, sometimes quite crowded and causing twisted leaves. A single chamber and nymph is in each gall. The health of most trees is not harmed by high gall infestations, although they can be unsightly. For young or nursery trees, apply an insecticide at bud-break when brown adults are depositing eggs on leaves. Or, use a systemic insecticide in March as a soil drench.

Hackberry Mosaic Virus



Yellow block-patterned chlorosis on leaves. Leaf areas affected are generally square in shape.

Remove affected plants.

Lace Bug, Hackberry



Whitish yellow flecks first on upper surfaces of leaves; eventually leaves become yellow or bronzy-brown. Leaf undersides with small, flattened, lacey bugs and tarry fecal spots. The brownish nymphs cannot fly and are more easily controlled. A strong stream of slightly soapy water from a hose-end sprayer will dislodge and kill many. Other options include a spray oil, insecticidal soap, conventional insecticide, or systemic insecticide.