

# APPLE SCAB

(*Venturia inaequalis*)

[http://www.arborjet.com/index.php/post/apple\\_scab](http://www.arborjet.com/index.php/post/apple_scab)

## DESCRIPTION

Apple scab is a fungal disease caused by the fungus *Venturia inaequalis*, which affects the leaves, fruit and twigs. While most common in apple trees, both pear and hawthorn are also frequently infected by the fungus. Outbreaks will be most severe following particularly wet and cool spring conditions.

The fungus overwinters on fallen leaves and begins to develop spores in the spring prior to budbreak. The spores are then transported by wind, rain or other physical means to infect tender, developing leaves, twigs and fruit. Once the fungal infection is established in the newly forming tissues, more spores are produced and spread to other areas of the tree.

## SYMPTOMS

Infection is commonly evidenced first by brownish-green spots on the leaves or fruit. As the infection progresses, the spots on the fruit become darker and more prominent and take on a somewhat fuzzy texture. When infection is severe, leaves will turn yellow and drop off. Fruit will become deformed and/or drop off prior to ripening.

## TREATMENT

Arborjet recommends a trunk injection with a systemic fungicide, either PHOSPHO-jet or Alamo® Fungicide in ornamental trees.

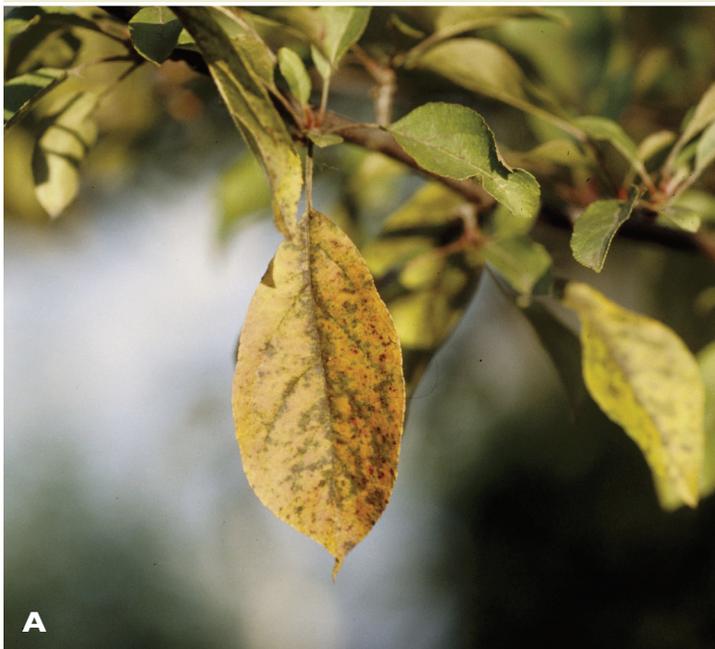
PHOSPHO-jet inhibits fungal cells while eliciting a plant health response from the tree. PHOSPHO-jet will promote stronger, healthier tree cells, promote root development and trigger the tree's natural defense mechanisms to make the tree more resistant to infection and better able to recover. Alamo will have more direct and aggressive activity against the fungus itself and is recommended if infection is chronic or particularly severe.

While Alamo is a more potent fungicide, it will not have the plant health benefits of PHOSPHO-jet.

## PHOTO

A. Leaves infected with apple scab, showing brown spots and yellowing.

Photo A taken by: Joseph O'Brien, USDA Forest Service, Bugwood.org



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### WHEN TO TREAT

Generally, the best seasons for injection are fall and spring, as uptake occurs when trees are transpiring. The environmental conditions that favor uptake are adequate soil moisture and relatively high humidity. Soil temperature should be above 40°F for trunk injection. Hot weather or dry soil conditions will result in a reduced rate of uptake, so trees should be watered if applications are made when soil is extremely dry. If treating trees in the summer, inject in the morning for the quickest uptake. Tree health will affect treatment efficacy, so assess tree health prior to treating. For example, a declining tree (>50% canopy dieback) is a poor candidate for treatment.

The best results will be achieved when PHOSPHO-jet or Alamo are applied prior to infection. Applying PHOSPHO-jet or Alamo in the fall will minimize or prevent infection the following spring. If applying in the spring, it should be applied as early in the spring as possible.

If treating an established infection, Alamo is recommended as a first treatment, with subsequent treatments of PHOSPHO-jet as necessary. Assess tree health prior to treatment. A tree in an advanced state of decline is a poor candidate for treatment.

### WHAT TO EXPECT AFTER TREATMENT

Tree recovery will be proportional to the severity of the infection at the time of treatment. Proactive treatment, either the preceding fall or very early in the spring, prior to budbreak, will suppress or prevent infection. PHOSPHO-jet will elicit a plant health response that will make the trees look healthier and more robust.

## WORLD CLASS FORMULATIONS

For treatment of apple scab, use PHOSPHO-jet or Alamo® Fungicide.

PHOSPHO-jet is a systemic fungicide and plant health elicitor formulated for the suppression of various plant diseases including anthracnose, black spot, phytophthora (including Sudden Oak Death), stem canker, apple scab, fireblight, root rot, bud rot and powdery mildew.

Alamo is a systemic fungicide that will stop the spread of infection and is recommended for severe or chronic infections.

Our products can be purchased online at [www.arborjet.com](http://www.arborjet.com) or at your local Arborjet distributor.

Alamo® Fungicide is a registered trademark of a Syngenta Group Company



### QUIK-JET INJECTION

### TREE I.V. INJECTION



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QUIK-jet Kit



TREE I.V. 2-Pack Kit



QUIK-jet Pro Kit



Arborjet Deluxe Kit

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