

(revision date:4/30/2013)

Common Cultural: Chlorosis

Use Integrated Pest Management (IPM) for successful plant problem management.

Biology

Chlorosis is the fading of the green color in plant leaves. It can be caused by environmental stress, nutrient deficiency, chemical deficiency or injury, disease, and the feeding of insects or mites. Plants that require full or partial shade may develop chlorosis or even bleached leaves in full, intense sun. Bright sunlight during hot weather leads to sunscald. Plant diseases that may induce various patterns of chlorosis include root rot, downy mildew, and some rusts and viruses. Leafhoppers create chlorotic rosettes on upper leaf surfaces of rose, apple, maple, lettuce, and turfgrass. Spider mites and some eriophyid mites can also spur chlorotic symptoms on leaves.

Nutrient deficiency is a common cause of chlorosis. Iron, nitrogen, or other elements may be lacking in the soil or in a form unavailable to plants. Depending on the particular nutrient which is lacking, leaves may yellow, starting at the margin and progressing inward until, in severe cases, only the areas around larger veins remain green. Soils high in lime (alkaline) often amplify this phenomenon.

Management Options

Non-Chemical Management

- ~ Plants that are chlorotic due to iron deficiency can be helped quickly with an iron chelate spray or soil application. Iron deficiency chlorosis is more common in alkaline soils or those to which lime has been recently added.
- ~ If soil is high in lime, add sulfur or incorporate organic matter.
- ~ Choose the right plant for the location. Some plants can tolerate more sun exposure than others.
- ~ Proper irrigation during hot weather can increase the plant's resistance to sunscald.
- ~ Provide partial shade with other plantings or move the plant to a less-sunny location.
- ~ When applying nitrogen fertilizer, use only the amount needed for reasonable plant growth. Incorporate it into the soil, and only apply it during periods of active growth.
- ~ Identify the cause of the chlorosis before purchasing and applying fertilizer.
- ~ Give careful attention to the amount of water applied to sandy soils, where nitrogen can easily leach away.
- ~ Do not overwater.

Select non-chemical management options as your first choice!

Chemical Management

IMPORTANT: Visit Home and Garden Fact Sheets for more information on using pesticides

None recommended

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Images



*~ Caption: Chlorosis on Japanese spurge caused by excessive sunlight
~ Photo by: R. Maleike*



*~ Caption: Lime-induced chlorosis
~ Photo by: R.S. Byther*



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~ Photo by: R. Maleike*