

Aster Yellows spread by Aster Leafhopper (*Macrostelus fascifrons*)

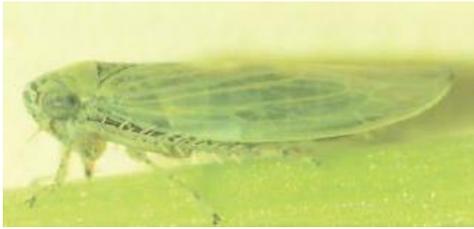


Figure 1 Adult (actual size 1/8")



Figure 2 Healthy carrot (top); affected carrot (bottom)

Description

Aster yellows is a systemic plant disease caused by a bacterium-like organism called a phytoplasma and is vectored (carried) by the aster leafhopper.

Damage

Aster yellows causes leaves and stems to turn yellow (chlorotic) and become stunted and twisted. Occasionally plants produce a proliferation of leaves. Flowers are discolored, mottled, distorted and sterile. On carrots, symptoms begin as a yellowing or twisting of new foliage. Later they produce a dense growth of chlorotic shoots, and older leaves become bronzed and break off easily. Taproots of carrots are thin, small, covered in many root hairs, and often taste bitter. Once a plant is infected by aster yellows, it will never recover.

When Active

Most plants do not develop symptoms until 21 to 30 days after they've been infected with the pathogen from the leafhopper. However, on lettuce and salad greens, symptoms can appear within 10 days.

Susceptible Plants

The aster yellows phytoplasma (AYP) affects over 350 plants, primarily in the aster family, including many common vegetables, annual flowering plants, perennial flowering plants and weeds. Leafhoppers prefer lettuce, carrots, celery and small grains for feeding and breeding, while other crops such as potatoes and onions provide a temporary source of food or refuge.

Prevention Methods

Removing infective weed reservoirs and infected crop plants can reduce the spread of aster yellows to vegetable and flower crops. Covering plants with floating row covers will prevent leafhoppers from reaching the plants and transmitting the disease but will also block pollinators from reaching the flowers.

Treatment Methods

Light colored or reflective mulches will disorient aster leafhoppers and can reduce feeding on plants. Insecticides are not effective in reducing aster yellows in the home garden.

Additional Information/Resources

- UW Extension Bulletin [A3679 Aster Leafhopper](#)
- [Wikipedia Aster Yellows](#)
- Dane County UW Extension Horticulture Hotline [608-224-3721](tel:608-224-3721) (M-F, 9 am-12 noon, April 15 – October 31) or horticulture@countyofdane.com