



BARTLETT TREE

RESEARCH LABORATORIES

U.K. AND IRELAND



**Plant Health Care Program**



# Guignardia Leaf Blotch

## (*Guignardia aesculi*)

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Guignardia blotch occurs on trees belonging to the *Aesculus* (horse chestnut) family and results in large, brown blotches appearing on the upper leaf surface at the leaf tips and margins. The symptoms appear on the trees late in the growing season so although it looks unsightly the disease does not damage the growth of infected trees. The disease is thought to have originated in the USA and although it is common in the east coast of America it is less of a problem in Europe.

### SYMPTOMS

Damage first appears as small water-soaked areas on the leaf surface which turn reddish-brown in a matter of days. Such lesions are often surrounded by a yellow border which may fade during lesion development. Small, black spots, pycnidia, also appear on the brown infected areas. The size of the lesions varies greatly and while the growth of small lesions may be inhibited by the present of leaf veins, larger lesions often merge together which results in the leaves curling upwards.

### CASUAL AGENTS

*Guignardia aesculi* is responsible for Guignardia blotch and the fungus overwinters on decaying plant material. Spores are released in mid spring and are dispersed to growing leaves mainly by water splash. The reddish-brown blotches appear 10-20 days after infection and the pycnidia appear from June onwards.

### CONTROL

Treatments with fungicides are effective. Because of lack of registration in the UK use of these chemicals in an amenity environment is not permitted. Control is achieved through good sanitation measures. Fallen leaves should be collected and removed from the area to reduce the amount of inoculum available for the following spring. Planting densities should be decreased as dense foliage prevents air movement and hence inhibits leaf drying after rainfall. In areas where there is history of the disease, resistant species should be planted i.e. *A.glabra* var. *sargentii* and *A.parviflora* var. *serotina*.



**Fig 1. *Aesculus hippocastanum* showing symptoms of *Guignardia* leaf blotch**