

## Rusts and smuts

# Hollyhock rust

**Pathogen:** *Puccinia malvacearum*.

**Hosts:** *Alcea*, *Althaea*, *Lavatera* and *Malva*.

**Symptoms:** Small, brown spots develop on the underside of foliage. Raised, bright yellow or orange pustules are visible on upper leaf surfaces. When disease is severe, large portions of the foliage are killed.

**Spread:** Spores can overwinter on diseased plant tissues and infect new foliage the following year. Spores are also produced on susceptible weeds. These can subsequently infect and



Numerous rust pustules on hollyhock foliage.

## Hollyhock rust – *continued*

cause disease on hollyhocks. Spores are wind-dispersed.

**Management:** Disease control on seedlings is especially important. Fungicide applications at regular intervals are necessary when disease is severe. Plants should be cut back as soon as flowering is done. Plant debris should be removed and destroyed, not composted. Several weeds in the mallow family are also susceptible and should be controlled to limit in-



Raised, orange-brown pustules of hollyhock rust on the lower leaf surface.



oculum in the growing area.

Lesions caused by hollyhock rust on the upper leaf surface.