Virginia Cooperative Extension

Plant Disease Fact Sheets

2000 PUBLICATION 450-613W

Hollyhock Rust

Mary Ann Hansen*

Rust, caused by the fungus, *Puccinia malvacearum*, is the most common disease of hollyhock. Under favorable environmental conditions, the disease spreads rapidly from leaf to leaf. Older leaves are usually killed, and plants become unsightly.

Symptoms

Brown pustules about the size of a pinhead appear on the undersides of lower leaves during the latter part of May in Virginia (Fig. 1). Cinnamon-brown colored teliospores of the fungus are produced in the pustules. Shortly after the pustules form, bright yellow-orange spots with reddish centers develop on the upper surface of the leaves in association with the pustules. Spots may be numerous and cause large portions of the leaf to die and drop out. Reddish-brown pustules appear on the stems at about the same time pustules appear on the leaves. During rainy weather the pustules may appear gray in color. Flowers are not affected.

Fig. 1. Rust pustules on upper and lower leaf surfaces of hollyhock. (Photo by M. A. Hansen)

Disease Cycle

The rust fungus overwinters in pustules on plant debris. In the spring, spores produced in the pustules are blown to young hollyhock plants where they initiate new infections.

Control

Cultural Control

Removing the first rusted leaves in spring as soon as symptoms are observed is an important part of control. Old plants should be cut down and burned or removed as soon as flowering is over. Care should be taken to clean up fallen plant debris. The common weed, round-leaf mallow (*Malva rotundifolia*), may also harbor the fungus, so weeding is helpful in control.

Chemical Control

Fungicides containing chlorothalonil (e.g. Daconil 2787), mancozeb (e.g. Fore, Dithane, or Penncozeb), trifloxystrobin (e.g. Compass), or myclobutanil (e.g. Systhane) can be used for preventative control in both home and commercial plantings. The fungicide, flutolanil (e.g. Contrast), is labeled for use in commercial plantings only. Spraying should begin at the first sign of disease and continue at recommended intervals through early July. Follow label recommendations or refer to the current Virginia *Pest Management Guide for Home Grounds and Animals* (VCE Publication 456-018), http://www.ext.vt.edu/pubs/pmg/, for rates and timing of application. For information on the proper use of pesticides and fungicides, refer to any current VCE pest management guide.

Adapted from previous publication by R. C. Lambe.

Disclaimer

Commercial products are named in this publication for informational purposes only. Virginia Cooperative Extension does not endorse these products and does not intend discrimination against other products which also may be suitable.

*Extension Plant Pathologist, Department of Plant Pathology, Physiology, and Weed Science, Virginia Tech

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Virginia Cooperative Extension programs and employment are open to all, regardless of race, color, religion, sex, age, veteran status, national origin, disability, or political affiliation. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. J. David Barrett, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; Lorenza W. Lyons, Administrator, 1890 Extension Program, Virginia State, Petersburg.

VIRGINIA STATE UNIVERSITY