

Pelargonium Rust

A NEW GERANIUM DISEASE IN NEW YORK STATE

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On August 25, 1967, some rust-infected geranium specimens obtained from a home-owner were sent in to us from West Chazy, N. Y. This proved to be a true fungus rust disease and was easily established on test plants held under quarantine conditions, using spores taken from the original specimens. An attempt to determine the source of

(continued on page 3)

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(continued from page 1)

the diseased plants brought only the information that they were purchased at a supermarket. Shortly after our discovery of the disease, its presence in the Monterey Bay area of California was officially reported by the California Department of Agriculture, and it was recently mentioned in the January 18 issue of *The Florists Review* (p. 75). Relatively unheard of until a few years ago, pelargonium rust has spread with astonishing rapidity throughout the European continent, New Zealand, Australia and the Hawaiian Islands, but had never been reported in the continental United States until last year.

Pelargonium rust is a typical rust, similar to snapdragon rust, producing brown, powdery, spore pustules on leaves, petioles and stems. Yellowish, chlorotic areas develop about the infections and infected leaves turn yellow, dry up, and drop prematurely. Not only are the brown, dusty spots objectionable, but loss of leaves makes the plants unsightly. A heavy infection could result in serious financial loss to the grower.

Very limited tests indicate that if there is a supply of spore inoculum, infection of susceptible plants may occur

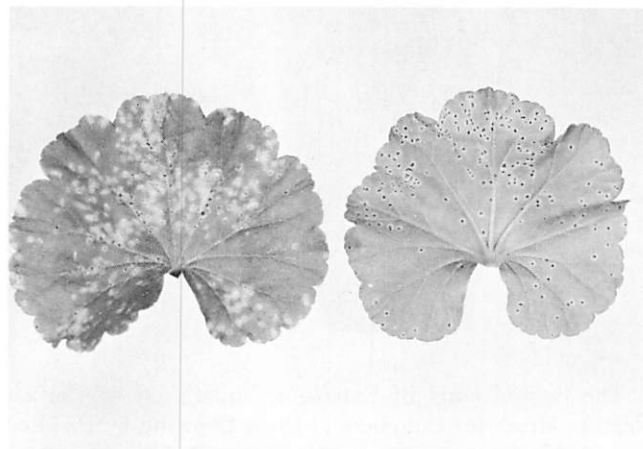


FIGURE 1. Upper and lower side of Geranium leaf showing rust infections.

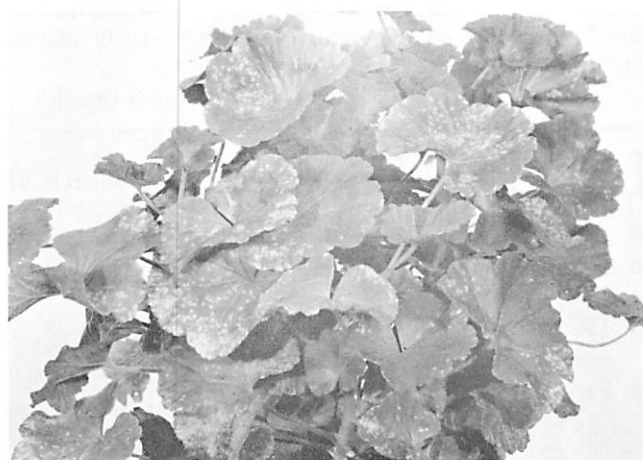


FIGURE 2. A whole plant showing rust infections on the leaves.

very readily under conditions favoring moisture on the plant tissues. Spores of the fungus are effectively spread by splashed water but they may also be disseminated by air currents in the absence of any splashing. A small source of infection thus may endanger plants at considerable distances, not just those in the immediate vicinity.

Since this disease is potentially very serious the primary control emphasis should be on absolute exclusion. Incoming plants, particularly from areas where the disease is known to be present in the field, should be examined very carefully and rejected if the true rust disease is found. If a single plant in a shipment is definitely infected, the odds are very high that many other plants have incipient infections that have not yet produced symptoms.

If the disease is already established in a greenhouse before being discovered, the infected plants should be destroyed and the remaining plants thoroughly sprayed at weekly intervals with a good rust-control fungicide. Treatment should be continued until it is certain that no further rust infections are present. We have not been able to test fungicides specifically for pelargonium rust, but ferbam, zineb or maneb materials should be fully effective if applied thoroughly and with sufficient wetting agent to insure coverage of the hairy geranium leaves.