

GERANIUM RUST IN CONNECTICUT

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Pelargonium rust has finally arrived in Connecticut. It was observed in two greenhouse ranges in eastern Connecticut on April 4, 1973. It is a relatively new disease, first found in the United States in California and New York in 1967 (1). Some experienced growers, especially in Kentucky and Tennessee, say they have known zonal rust as a minor pest for year (1). Since then it has been reported in Florida, Georgia, Pennsylvania, Ohio and Canada (3, 4, 5).

It was first described in 1926 (2) and at that time was restricted to South Africa where geraniums are native. From 1940 to 1960, it was reported in New Zealand, Australia and Hawaii. Rust was first reported in France in 1962. In three years it spread to Italy, Switzerland, Belgium and England.

The symptoms of this disease are familiar to many greenhouse operators since rust diseases of carnation, chrysanthemum, snapdragon and rose have been with us for many years. Rust first appears as a small yellow spot and increases in size up to 1/4 inch. Spots are visible from the topside of the leaves but much more on the underside. After a few days, a rust-colored pustule develops in the center of the spot on the underside of the leaf. The pustule breaks and sporulates in concentric circles (Figure 1).

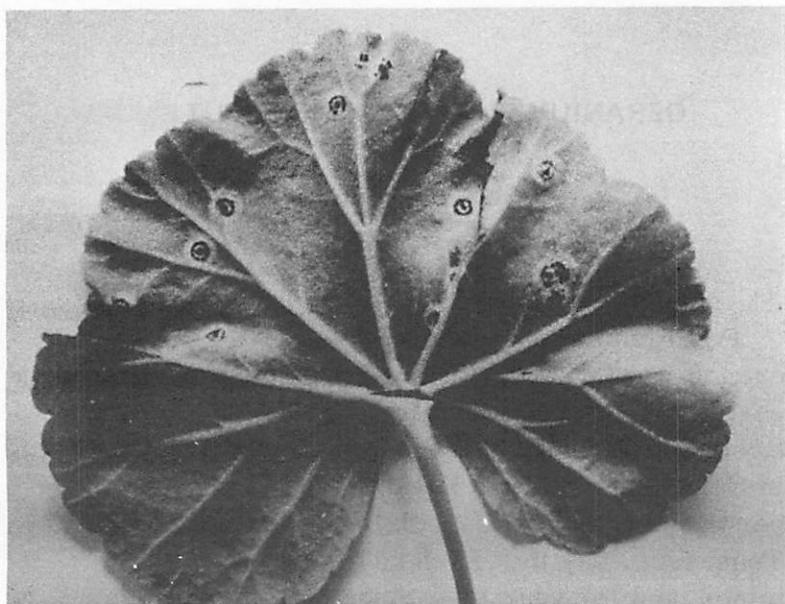


Figure 1. Pelargonium rust sporulating on geranium.

Three things are necessary to start a rust infection: a rust spore, a geranium leaf and a droplet of water. If the foliage remains dry, the spores will not germinate. It is spread by workers touching the plants and by gusts of wind blowing the spores about. The spores are produced in great abundance and are readily disseminated.

Fortunately, the disease is relatively easy to control. When the disease is discovered, remove and burn all infected leaves. These may be detected by the yellowish spots appearing above the lesions on the upper surface of leaves. Zineb is one of the most effective fungicides used to control this rust (5). Spray with zineb (1 1/2 lb/100 gal.) so as to cover the undersides of the foliage. Do this weekly for 6-8 weeks.

Pelargonium rust can be a serious threat to the production of geraniums but need not be. If you find the disease, spray immediately and contact your Extension agent. Perhaps this disease can be controlled to the extent that it will be regarded only as an academic curiosity. Let it not detract from the commercial value of this crop which has only recently achieved a price status sufficient to make it truly profitable.

References

1. Bode, F. A. 1972. Zonal geranium rust. Florists' Review 150 (3875):30-31,46 (March 9)
2. Dimock, A. W., R. E. McCoy, and J. F. Knauss. 1968. A new geranium disease in New York State. New York State Flower Growers' inc., Bull. 268.
3. Doidge, E. M. 1926. A preliminary study of the South African rust fungi. Bothalia 2:98-99.
4. Ellett, C. W. and C. C. Powell. 1972. Rust on florists' geranium, a new disease in Ohio. Ohio Florists' Assn., Bull. 510:5
5. Nichols, L. P. and L. B. Forer. 1972. Geranium rust discovered in Pennsylvania. Plant Disease Reporter. 56:759
6. Wehlburg, C. 1970. Pelargonium rust (*Puccinia pelargonii-zonalis*) in Florida. Plant Disease Reporter. 54:827-828