

TRANSMISSION OF CARNATION MOSAIC BY CONTACT
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The handling of carnation plants may be an important means of carnation-mosaic virus dissemination. Carnation plants are handled three or four times from the time they are taken as cuttings. Each time they are handled there is a possibility of infecting healthy plants by contact with hands which previously have handled diseased plants. Because the importance of this handling has been undetermined, an experiment was designed to test the effectiveness of contact as a means of carnation-mosaic virus transmission.

Because symptoms of mosaic are more readily expressed by the leaves of Dianthus barbatus than by those of D. caryophylli, the former species was used for testing. Twenty-two healthy plants were inoculated by rubbing the leaves between the thumb and forefinger after rubbing injected leaves. Seven healthy plants were used as uninoculated checks. Infection was determined by visible symptoms within 30 days after inoculation.

The experiment resulted in 63.6 per cent infection. Out of 22 plants inoculated 14 expressed visible mosaic symptoms. No infection was apparent in the uninoculated checks.

The results indicated that the carnation-mosaic virus may be transmitted easily by contact. The transmission incurred by handling plants in a commercial range may not be pronounced, due to the fact that no effort is made to rub the leaves with the fingers. Nevertheless there could be some incidental transmission when the plants are handled. However slight this may be, wherever mosaic-infected plants are mixed with healthy plants there probably is a gradual spreading of the virus to the healthy stock by indiscriminate handling.