BACTERIAL FASCIATION DISEASE OF ORNAMENTAL PLANTS

A report has been published recently by Dr. Kenneth F. Baker concerning the fasciation disease on numerous ornamental plants in California. Of bacterial origin (Corynebacterium fascians), the disease occurs principally on species of Chrysanthemum. Such daisies as the Esther Read Daisy and Shasta Daisy have been found to be very susceptible to the disease. However, the Marconi variety has a very high degree of resistance. Among the species of Chrysanthemum known to be susceptible are C. maximum, C. indicum, and C. morifolium, although the latter species has shown some degree of resistance.

On the chrysanthemum the disease causes large, swollen, "cauliflower" masses of interlocking basal shoots developed at and slightly below soil level. The galls may decay and spread to other portions of infected plants, eventually killing them. Because of the prevalence of this disease production has been greatly reduced and the number of root divisions obtained has been seriously decreased.

Efforts to control this disease by treatment of root divisions in hot water and such disinfectants as mercuric chloride, calomel, calcium hypochlorite, sodium hypochlorite, and Elgetol have been unsuccessful. As the bacteria spread easily from decayed galls to other plants through irrigation water, strict sanitation practices and rogueing should be followed.

The disease has been reported on carnation causing a dense leafy gall 1½ inches in diameter on the aerial stem. It was first reported in England in 1934 and in California in 1944. However, no report has been made concerning its occurrence in commercial plantings. Whether this is the same disease which has been observed in the Denver area recently is yet to be determined.
--W. D. Thomas, Jr.