

## NEW DISEASE OF GREENHOUSE SNAPDRAGONS CONTROLLED

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A fungus leaf blight of greenhouse snapdragons hitherto unobserved in North Carolina was controlled satisfactorily in tests last year at the Horticultural Crops Research Station. The disease, caused by the fungus Cercospora antirrhina Muller and Chupp is characterized by the development of dingy gray to white spots which are at first circular in outline with a narrow raised, brown line border. Under conditions of high humidity which often occur in winter-grown snapdragons, these lesions enlarge rapidly and involve all or nearly all of affected leaves (Figure 1). These later shrivel and become dry and brittle. Lesions also frequently girdle the stems. Long needle-shaped spores are produced and can be distributed by air currents and by workers to healthy plants.

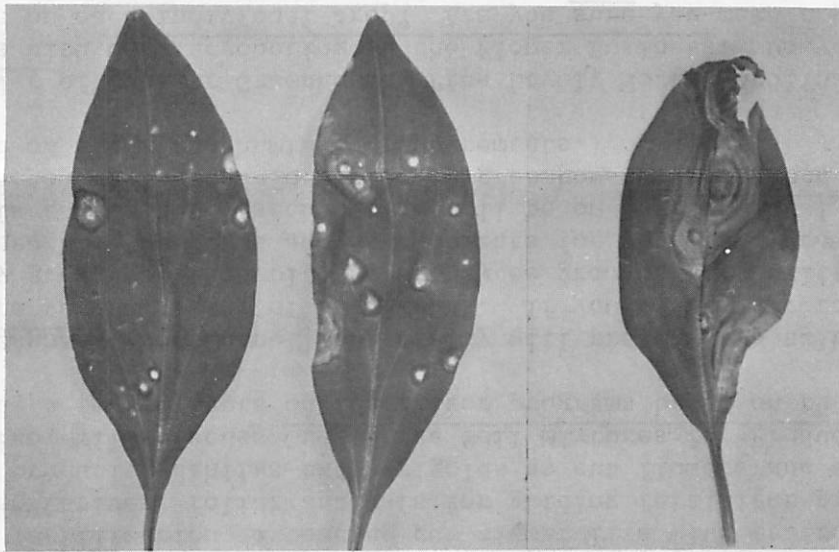


Figure 1. Young and old lesions caused by Cercospora antirrhina on War Admiral snapdragon leaves.

Until a few years ago, the only record of this disease was a report from Guatemala in 1950. Since that time it has been observed in Florida on outdoor snaps, however. Fungicidal control has not been attempted.

At Castle Hayne, materials included as sprays in experiments designed to test the efficacy of various fungicides against Cercospora were zineb, captan, and phaltan at 2 lbs. per 100 gals. of water. These were compared with dusting sulfur which is recommended for the control of certain Cercospora diseases on other plants. A non-treated control was also included. Snapdragon seedlings of War Admiral variety were set in flats and grown to flowering by means of

cord trellises. The plants were artificially inoculated twice with heavy spore and mycelial fragment suspensions obtained from pure cultures of the organism. Lesion counts just prior to flower harvest showed that untreated plants had an average of 75 per plant. In contrast, those sprayed with 5 weekly applications of zineb averaged less than one per plant. Control with the other materials was also good but not as outstanding as that afforded by zineb (Table 1).

Table 1. The effect of fungicides on control of Cercospora disease of snapdragon

<u>Material</u> <sup>a/</sup>	<u>Number lesions per plant</u> <u>(mean)</u>
zineb <sup>b/</sup>	.8
captan <sup>b/</sup>	5.8
phaltan <sup>b/</sup>	7.5
Dusting sulfur	12.5
Control	74.5
LSD (.05)	21.2
LSD (.01)	30.8

a/ Five applications to 60 plants per treatment.

b/ Sprays at 2 lbs. per 100 gals. water plus spreadsticker.