

GUIGNARDIA LEAF SPOT OF ASCOCENTRUM, ASCOCENDA,

AND SPECIES AND HYBRIDS OF VANDA ORCHIDS

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Fig. 1. Guignardia leaf spot on a vanda orchid.

A severe leaf spotting disease of orchids was first observed in Florida in the late 1970's, and the causal agent was identified as a *Guignardia* sp. This was the first report of *Guignardia* attacking orchids (1). *Phyllostictina* has been associated as a possible anamorph of the new *Guignardia* leaf spot, but symptoms of this new disease are distinctly different from those caused by the familiar *Phyllostictina pyriformis* Cash and Watson (2) [= *Phyllosticta capitalensis* P. Henn.(3)]. *Guignardia* sp. is a serious leaf spotting pathogen of *Ascozentrum*, *Ascocenda*, and *Vanda*, and its hybrids.

SYMPTOMS. Initial infections may start on either leaf surface as tiny, dark purple, elongated streaks. These lesions run parallel to the veins but are not delimited by them. As the spots enlarge, they form elongated, diamond-shaped lesions. Individual lesions often coalesce to form irregular areas that may engulf a large part of

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the leaf and advance to the opposite surface of the leaf. With age, the centers of the lesions turn tan, brown, or silvery in color, occasionally remaining dark purple. Embedded in these lesions are pycnidia of *Phyllostictina* (Fig. 1). The fungus attacks leaves of any age. Severely infected leaves may remain attached and supply a continuing source of inoculum to adjacent orchids and emerging leaves of the infected plant. Perithecia of *Guignardia* may develop in fallen leaves.

CONTROL. Keeping the orchid nursery pathogen-free is of primary importance. New orchid plants should be carefully inspected to insure that they are free of this disease. County extension agents should be consulted for fungicide recommendations.

SURVEY AND DETECTION: Look for dark purple, elongated streaks on either leaf surface. Lesions enlarge to form elongated, diamond shaped lesions which may coalesce. Black fruiting bodies can usually be detected in mature lesions.

LITERATURE CITED.

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