

Wickramarathe, S.N.M.
Kumara, G.D.K.
Dissanayake, M.L.M.C.
Samarasinghe U.
POSTER

Identification of Causal Factor of Leaf Spots in *Cordyline fruticosa compacta*

S.N.M. Wickramarathe, G.D.K.Kumara, M.L.M.C.Dissanayake, & U. Samarasinghe, Department of Export Agriculture, Sabaragamuwa University of Sri Lanka

Cordyline fruticosa compacta is a tropical foliage plant variety which is commonly known as ‘Ti plant’. The variety consists of several types with different leaf colors. However, this variety is susceptible to many infectious and non infectious diseases. Since 2011, a previously unknown leaf spot disease has become a major problem, causing a significant reduction in *Cordyline fruticosa compacta* exportation. The leaf spots are initiated as minute dark brown to black spots with yellow halos and spread all over the leaf surface as many spots. Later, the entire leaf turns yellow and rots. Since the cause of the particular condition was not clear, an experiment was carried out to identify the causative factor.

Samples of diseased leaves were collected randomly from both mother plants and propagated plants of *C. fruticosa* ‘Gold’ *compacta* to isolate the causal organisms. Isolated fungi were purified using a series of subcultures. Macroscopic and microscopic characteristics of the pure cultures were studied on PDA (potato dextrose agar) and SNA (synthetic nutrient agar) culture media, Inoculation test was conducted to confirm efficiency of isolate to induce typical symptoms. Symptoms were reproduced on all leaf inoculated with isolates. The conidia were rod shaped and observed in masses. The acervuli were observed with conidiophores where the mycelium was a septate one.

According to all macroscopic and microscopic observations the pathogen was identified and verified as a *Colletotrichum* species using illustrated keys. This is the first report of leaf spot on *C. fruticosa* ‘Gold’ *compacta* caused by *Colletotrichum* in Sri Lanka. However, both morphological and molecular level studies are required for further confirmation of pathogen.