
SESSION II
Disease Diagnosticts

Preparation of Coconut Root (wilt) Phytoplasma specific Antiserum and its use in Disease Detection

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Root (wilt) disease, a debilitating malady of coconut is generally identified based on foliar symptoms. The diagnostic symptoms are abnormal bending of leaflets termed "flaccidity", yellowing and marginal necrosis of the leaves. An antiserum prepared against disease specific nucleoprotein isolated from root (wilt) affected palm is used for diagnosis through double diffusion test using intragel cross absorption test and ELISA. With the advent of identifying phytoplasma in root (wilt) diseased palms and establishing its etiological role through transmission experiments, this mollicute has been fractionated from tissues of symptomatic palms and used as antigen for preparation of phytoplasma specific antiserum. The antiserum thus prepared, on evaluation by agar gel diffusion test, was found to be specific and had high titre. This paper enumerates the prospects for using the phytoplasma specific antiserum for precise root (wilt) disease detection and for assessing its relationship with yellow leaf disease of arecanut and spear rot disease of oil palm, the other two phytoplasmal disease of palms in India.