

67. Studies on a colour test for the Root (Wilt) disease of Coconut.

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The development of a colour test based on the oxidising enzymes is reported for the identification of the root (wilt) disease of coconut of South India, using methylene blue as the dye and tender leaves as the test material. Results of an analysis of 1,100 samples from 323 trees collected from Kayangulam indicate nearly 93% correlation with infectivity. It was observed that none of the samples from the diseased trees retained the original colour of a 0.001 M solution of methylene blue and that the percentage of trees decolourising the dye to 50% or above increases with the development of the disease. However, about 14%, 6% and 9% of trees in the early, middle and advanced stages of disease respectively, do not respond favourably to the colour test if 50% decolourisation of the dye is taken as the criterion. Further work is in progress with larger number of samples to fix up the rate of decolourisation brought about by a disease-free tree so that this colour test may be standardised with higher accuracy. Separate tests of the same type but with varying concentrations of the dye is being standardised for different localities.