THE RESISTANCE OF MULBERRY TREE SPECIES TO TWO FOLIAR DISEASES IN THE RAINFOREST ECOLOGICAL ZONE OF NIGERIA

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The capability of mulberry tree species to produce high quality leaf materials for silkworm growth and cocoon production has been dampened by incidence of insect and pest diseases. This study was carried out at the Sericulture plantation unit, Forestry Research Institute of Nigeria, located in the rainforest ecological zone to assess the resistance of six different mulberry tree accessions (S30, S14, S41, K2, N17, S54) to two foliar diseases (Leaf spot and powdery mildew). The study laid out in a Randomized Complete Block Design (RCBD) with five replications and Analysis of variance (ANOVA) used to test significance of the different means. The result revealed the percent incidence for leaf spot was highest in S14 (56.23 percent) and lowest in K2 (2.32 percent) where as in powdery mildew, it was highest in S40 (67.34 percent) and lowest in K2 (3.56 percent). It was also observed that the disease severity was ranging from a few individual spots to numerous lesions nearly covering the entire leaves. The results of different foliar anatomical characteristics showed that it plays a significant role in inhibiting the spread of the pathogen causing the diseases. Varietal rating to insect pest susceptibility showed that K2 accession was least affected or invested. It was concluded that K2 accession has high potentials that could be exploited for mass production of mulberry germplasm for silkworm, livestock, and human consumption. However, recommendations were also suggested for the study.

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