CLONAL SUSCEPTIBILITY AND POPULATION DYNAMICS OF TEA RED SPIDER MITE, OLIGONYCHUS COFFEAE NIETNER (ACARINA:TETRANYCHIDES) UNDER LABORATORY CONDITIONS

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The tea red spider mite, Oliganychus coffeae Nietner, is a serious pest in the mid-country semi dry and wet zone tea districts of Sri Lanka, during the drought months. They feed on the mature leaves by sucking the cell sap and when the attack is severe, they cause defoliation. One method of minimizing the pest damage, is to plant tea clones that are resistant to this pest in 'mite prone' areas. Tan popular tea clones, namely, TRI 2023, 2025, 2026, 2027, CY 9, DG 39, DN, DT 1,KEN 16/3 and MT 18, grown in these districts were tested for their susceptibility to the pest in the laboratory, with ten replicates. 'Detached leaf' method (Oomen, 1982) was adopted for this study. Periodical observations on the rate of egg laying and the development of the young stages were made at regular intervals, in each replicate.

This study revealed that the clones MT 18 and TRI 2027 are resistant, while the clones CY 9 and DT 1, are susceptible to this pest. The egg to adult stage varied from 15 to 21 days in different clones. Peak populations were seen 26 - 28 days after inoculation. There is no relationship between the rate of defoliation and the build up of mite populations.

References:

Oomen, P.A. (1982) Studies on population dynamics of the scarlet mite, Brevipalous phoenicis, a pest of tea in Indonesia.
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