

VARIATION OF LEAF SURFACE MICROBIAL POPULATION WITH RAINFALL

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Studies on leaf surface micro-organisms have progressed considerably since the existence of a phylloplane microflora was first described. Effect of climatic factors on composition of leaf microflora and temporal variations in populations have been well documented.

Composition of microbial population inhabiting tea leaves were studied using cultural techniques. Composition of the microflora on two leaves and the bud was determined with modified leaf washing techniques to suit the tea leaf. A number of aerial contaminant fungi, bacteria and yeasts were found to be common inhabitants of the tea leaf. Secondary to this determination, variations in population sizes of each of the microbial groups in relation to rainfall was monitored. Fungal population after heavy rainfall seems to be much less than during dry periods following moderate rains. The composition also seems to be affected by rainfall. Bacteria and yeasts exhibited remarkable consistency in population size and composition. This could be explained in terms of their tenacious hold on the leaf surface which helps in withstanding the washing effect of rain water.