

IDENTIFICATION OF SPITTLEBUG SPECIES PLANT HOSTS, ECOLOGY AND THEIR SYOMBIANTS
WITHIN THE UNIVERSITY OF EMBU-KENYA

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Abstract

Spittlebugs a nymph stage of froghoppers that are insects of the family Cercopidae that inhabits strawberries, nursery stock, and legume forage crops, ornamental grasses. Meadow spittlebug, *Philaenus spumarius* is the most common insect species of spittlebug in the world. They taps into the plant, drinks the xylem sap and secretes the frothy spittle that provides nourishment and protects them against predators and dehydration. The creation of microhabitats is an important and efficient strategy used by insects to regulate their body temperature. The foam secreted can act as a repellent or irritant to the predators. There many spittlebugs species inhabiting the Kenyan ecosystem yet there is little information on, their ecological influence, abundance, habitat preferences, distribution and activities of spittlebug species. This study aims to identify spittlebug species, habitats and their ecology and document data that enable us to understand the role/niche they play in the University of Embu Ecosystem. The sample was collected in sealable sterilized bottles using a pair of sterilized forceps and transported to the zoology laboratory. Plant species inhabited by spittlebugs was collected and identified. Nutrient agar and potato dextrose agar media was prepared and autoclaved, allowed to cool after dispensing to petridishes. Spread plating culturing and sub-culturing was done on sterile laminar flow hood. The media used supports growth of wide range of bacteria and fungi. The contents of the midgut was cut and dissolved in normal saline, mixed well and subjected to serial dilution to 10^{-3} before spread plating was done and plates incubated at 30°C for 12hrs. Sub-culturing was done to obtain pure isolated which was tested for colony characterization, substrate utilization and biochemical tests.