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MICROBIAL AND NUTRIENT STUDY IN ALKALINE SOIL USED FOR CULTIVATION OF DIFFERENT VARIETIES OF MULBERRY PLANTS

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ABSTRACT

This research work, the soil having the alkaline range from 7.9 to 9.2 pH was found to have an effect on number of soil microbes per gram of sample. Soil sample AR-14 was found to have the highest number of bacterial colonies. The fungal colonies observed in the sample was 9.0×10^{-5}, represent at pH 9.2 proved the unfavorable for growth of the soil fungi. In soil samples S-1 and BR-2 marked decrease was observed in the number of soil fungi and bacteria. Factors such as source of Carbon, Nitrogen, Vitamins and trace elements determine the rate of spore development under natural conditions. The high value of potassium content was measured in this study. The majorities of bacteria isolated from soil samples were gram negative bacteria. The present study represent that soil sample high pH (9.2) and K content (212 ppm) is capable of supporting the growth of maximum number of bacteria and soil higher concentration of Cu favors abundant growth of soil fungi carrying out biodegradation during their secondary metabolism.

KEYWORDS: Microbes, Macronutrients, Micronutrients, Gram-Positive, Gram-Negative, PDA, Sericulture