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### MICROBIAL POPULATION OF PADDY SOIL IN VELLAYANI

The micro organisms that occur in paddy soils which remain submerged for about 6-8 months of the year, was studied. The procedure of Johnson *et al* (1959) was adopted for collection of soil. The microbial population at 0.7, 7-15 and 15-30 cms was studied by the soil dilution and plate technique (Timonin, 1940). Soil extract agar, Peptone dextrose agar with rose bengal and kuster's media were used for bacteria, fungi and actinomycetes respectively. The plates were incubated at room temperature. The counts of bacteria and fungi were taken after 6-7 days and actinomycetes after 10-14 days. The nutrient status and pH of the soil were also determined (Jackson, 1958).

The highest microbial population was found in the top layers and is decreased in lower layers. This may be due to the decrease in the nutrient status of lower layers.

Table 1 Total microbial population  $10^6/g$  of dry sample Vellayani Paddy field

Depth in cms	Bacteria	Fungi	Actino- nycetes	pH	Moist- ure %	N%	P <sub>2</sub> O <sub>5</sub> %	K <sub>2</sub> O %	CaO %	MgO %
0-7	16.31	1.90	5.41	4.9	10.58	0.19	0.09	0.09	0.05	0.10
7-15	10.32	0.98	5.38	4.7	6.73	0.11	0.04	0.09	0.05	0.20
15-30	6.51	0.65	4.25	4.3	5.03	0.03	0.02	0.04	0.04	0.010

#### സംഗ്രഹം

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