

**EFFECT OF TWO INSECTICIDES ON MICROBIOLOGICAL ACTIVITY
OF A REDDISH BROWN LATOSOLIC SOIL FROM DODANGOLLA**

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The effect of two commonly used insecticides, Labaycid and Dipterex (applied at the rate of 1 l. per ha.) on activity of microorganisms of a Reddish Brown Latosolic Soil was studied. Carbon dioxide evolution, ammonification and nitrification were estimated. Soil was treated with one ml of 40% formalin, and set of untreated soil were the control. Soil was maintained at field capacity at 28°C.

In insecticide treated soils microbiological activity increased rapidly within the first 4 days as measured by CO₂ evolution, and sharply decreased during the next 8 days. By the 16th day these soils showed an increasing trend in CO₂ evolution which increased up to the 24th day. The formaldehyde treated samples showed the lowest microbial activity.

Ammonification was relatively less in insecticide treated samples. The Labaycid treated samples showed a relative increase of NH₄ by the 4th day which then decreased. Similarly, Dipterex and Labaycid treated soils showed increases by the 12th day of incubation but in both the trend was to increase with time. Ammonium-N was generally lower in the formaldehyde treated soil up to the 12th day of incubation, after which it increased above all other treatments.

Labaycid suppressed nitrification more than Dipterex, but nitrification was more than in the formaldehyde treated soils. Dipterex treated samples showed more nitrification than the control treatment. Similar trends were observed in the total nitrogen values.

The action of insecticides on soil microbiological activity of this soil is therefore only temporary.