

STUDIES ON BULKY ORGANIC MANURE APPLICATION
ON RED YELLOW LATOSOLS

By

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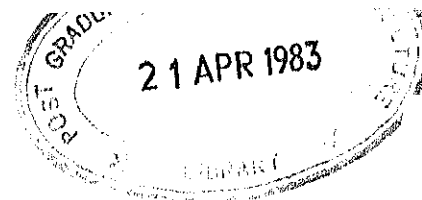
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ABSTRACT

This study was concerned with evaluating the effect of organic manures on the growth and yield of chillies and potatoes on Red Yellow Latosols.

In two experiments ('Yala' and 'Maha') to test interactions between farm yard manure rate, nitrogen fertilizer rate and irrigation frequency, chillie dry pod yields on plots with farm yard manure at 12.5 and 25.0 t/ha did not differ significantly from yields in plots which received no farm yard manure. In the Yala trial irrigating to field capacity once in five days caused a significant (1% level) yield reduction of 22% compared with irrigation to field capacity once in three days, and this was independent of farm yard manure application. There was no significant difference between yields of plots treated with 45 and 90 kg N/ha as urea. In the Maha trial neither farm yard manure rate nor irrigation gave significant difference but there was a 17.5% reduction in yield by reducing nitrogen rate from the Department of Agriculture recommended rate of 90 kg N/ha to 22.5 kg N/ha.

In an experiment with potatoes carried out on three sites, applications of farm yard manure (at 25.0 t/ha) and two green manures Crotalaria juncea (at seed rate 100 kg/ha) and Thespesia populnea (at 10 t/ha) did not significantly increase tuber yield compared with unmanured plots. However, organic matter content and total nitrogen content of the soil was always greater in manured plots than in unmanured plots.

No evidence was found for any short term improvement in water or nutrient uptake by chillies as result of organic manuring.