NUTRIENT COMPOSITION OF SOME PLANTS USED AS GREEN MANURES IN RICE CULTIVATION

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Application of green manures to rice fields is practiced to a limited extent by farmers in the central region of Sri Lanka. Green leaves along with tender branches cut from some selected plants are brought and incorporated to the soil during land preparation.

In order to study the manurial value of some of these plants, samples were collected from fifteen selected species at ten different locations in the central region, and leaves and tender stems were separately analysed for their nitrogen, phosphorus, potassium and carbon contents.

Leaves of non-leguminous plants, Tithonia diversifolia, Datura metal and Mikania cordata contrained over 4.30% nitrogen on a dry weight basis and are comparable to those of leguminous plants tested.

While the potassium content in tender stems of all species tested was higher than that in the leaves, the potassium content of the tender stems of the above three species was found to be relatively high, with over 4.50% potassium on a dry weight basis.

The C/N ratio of tender stems of all plant species ranged between 17 and 46 whereas the ratio in the leaves ranged between 8 and 20.

This study indicates the possibility of identifying the specific plant species that could be successfully used as green manures in rice cultivation.

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