B57 EEFFECT OF INCORPORATION OF COIR DUST AND PADDY HUSKS ON NITROGEN MINERALIZATION

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Effect of incorporation of coir dust and paddy husks on N-mineralization of an Alfisol and an Oxisol was examined in an incubation experiment. The treatments consisted of 300 g soil mixed with either 0.5 g of coir dust or paddy husks, approximately equivalent to an application rate of 4 t/ha and a control without any additions. These samples were incubated at 25°C and the moisture content was maintained at 60% of the field capacity. The N-mineralization was evaluated by measuring the nitrate and exchangeable ammonium after an incubation period of 1, 2, 4, 8 and 12 weeks.

Incorporation of these organic materials had no remarkable effect on exchangeable ammonium content of both soils except for the control of the Alfisol where the values were significantly higher than the organic matter treatments during the latter period of incubation. Exchangeable ammonium content in all treatments of the Oxisol showed a decreasing tendency possibly due to the low CEC whereas in the Alfisol the values remained at almost constant levels except for the control.

Nitrate content of the paddy husk treatment of the Oxisol was higher than the coir dust treatment and this was significant at the end of the incubation. However, in the Alfisol, coir dust was superior to paddy husks. In both soils, controls occupied an intermediate level.