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**Effects of Some Plant Residues on Nitrogen Mineralization and Biological
Activity in Soils**

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Abstract: The objective of this experiment was to determine the rate of decomposition and nitrogen mineralization of plant residues in soil under laboratory conditions. The experiment consisted of six treatments: control, industrial tobacco residues, rice straw, rice straw + mineral nitrogen, rice husks and rice husks+mineral nitrogen. The plant materials were added at a rate of 2000 mg/kgC and the amount of NH₄ + -N completed the C:N ratio of the added materials to 12.5. After adding the plant material the following measurements were carried out: soil respiration measurements 14 times, dehydrogenase activity 14 times, mineral nitrogen (ammonium and nitrate). The results show that the C:N ratio was found to affect the net mineralization and nitrogen mineralization under the present conditions for decomposition of plant residues. Mineral nitrogen addition is conducive for short-term decomposition when the C:N ratio is large.

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