The Use of Tracer Techniques in the Simultaneous Measurement of Mineralization and Immobilization of Nitrogen in Soils

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Under soil conditions favorable for microbiological activity the depletion and replenishment of inorganic soil nitrogen occurs continuously. All forms of life in the soil require nitrogen. The higher plants and a large proportion of the microbial species use chiefly the inorganic forms. In the processes of decomposition of nitrogenous organic materials, mineral nitrogen is an end product. In the course of these reactions old nitrogenous organic residues are destroyed and new ones formed from inorganic sources. The soil nitrogen thus becomes interchanged with that in organic combinations.

Because the terminology dealing with soil nitrogen transformations does not enjoy universal acceptance, some general definitions are warranted. Immobilization is here used to denote the process of conversion of inorganic nitrogen into organic combinations.

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