

## SOIL SCIENCE

Chairman: KEITH HUFFMAN, Soil Conservation Service,  
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### ABSTRACT

**The Degradation of Proteinous Substances in Soils by Controlled Denitrification.** ROBERT H. L. HOWE, Eli Lilly and Company, Tippecanoe Laboratories, Lafayette, Indiana 47902.—The theory of a rapid process for the degradation of proteinous substances in soils was explained. Biochemical reaction pathways of the controlled denitrification processes involving the inter-reaction of the nitrate radical ( $\text{NO}_3^-$ ) with carbohydrates, sulfur, ammonia, hydrocarbons, sulfides, and hydrogen were suggested. Some experimental data were presented. The rapid release of nitrogen gas ( $\text{N}_2$ ) from soils inoculated with the proper denitrifying microbes for the degradation of proteinous substances under controlled conditions was noted.

### OTHER PAPER READ

**Automatic Mapping of Earth Features Using Digitized Data from Multiband Satellite Photography.** E. H. HORVATH and STEVEN J. KRISTOF, Agronomy Department, Purdue University, Lafayette, Indiana 47907.