SOIL SCIENCE

Chairman: M. L. BAUMGARDNER, Purdue University

JAMES E. NEWMAN, Purdue University, was elected chairman for 1969

ABSTRACTS

Fluctuations of Bacteriological Numbers in Farm Ponds. L. E. HUGHES and H. W. REUSZER, Purdue University.—Studies of the fluctuations of bacterial numbers in farm ponds was conducted for sixteen months. These studies were conducted in three ponds, Ponds A, B, and C. Samples were taken approximately once each month from both the surface water and water near the bottom of each pond.

Bacterial numbers in Pond B were about equal in the bottom water and the surface water throughout the year, ranging from about 5,000 per ml in August, 1967, to somewhat greater than 40,000 per ml in May, 1967. Larger numbers and greater fluctuations of bacterial numbers were found in Ponds A and C, with generally higher bacterial numbers in the bottom water of Pond A than in the surface water, while generally higher numbers occurred in the surface water of Pond C than in the bottom water.

Some factors influencing these bacterial numbers, including total carbon, have also been studied. Pond B had consistently lower total carbon values in both the surface water and bottom water than did Ponds A or C with values ranging from 7.0 mg per liter to 11.6 mg per liter. Pond A had values as high as 16 mg per liter while Pond C had even higher values, ranging up to 22 mg per liter.

Earth Mound in Eastern Indiana. JAMES M. SMITH, University of Dayton, and BRUCE MILLER, Miami University.—This paper concerns an earth mound about 110 feet in diameter located S. W. ¼, Sec. 35, T-11-N, R-2-W, Union County, Indiana. The area is described as a soils problem, stressing beginning of B horizon development. Numerous chert objects—in all liklihood hearth stones of Adena Indian culture—were found in the mound.