A METHOD FOR OBTAINING A CONTINUOUS MEASUREMENT OF SOIL MOISTURE UNDER FIELD CONDITIONS

A METHOD has been devised for making *in situ* under field conditions a continuous measurement of soil moisture. It consists of imbedding in the soil a standardized block of CaSO₄ (plaster of paris). The moisture content of this material varies directly with that of the soil. Since the dielectric constant of plaster of paris is proportional to its moisture content, a measure of the conductivity of the block is a measure of soil moisture. Conductivity determinations are easily made by means of electrodes and a form of the Wheatstone bridge.

This device measures soil moisture ranging from the wilting point to the field capacity or it is really a measure of the available water. It denotes the wilting point accurately. By knowing the wilting point and the available water, the total water content is thereby also known. The method possesses a surprisingly high degree of accuracy.


SOME ACTIVITIES OF THE DIVISION OF BIOLOGY AND AGRICULTURE OF THE NATIONAL RESEARCH COUNCIL

THE following brief summary of certain activities of the Division of Biology and Agriculture, National Research Council, is based upon the 1937–1938 annual report of the Chairman, Dr. R. E. Coker, and from supplemental information obtained from him relative to development since July 1, 1938:

INTERDIVISIONAL COMMITTEE ON AEROBIOLOGY

Dr. E. C. Stakman has been named chairman, to succeed the late Dr. Fred C. Meier who, with Dr. E. B. McKinley and others, was lost with the ill-fated Hawaiian Clipper, while on an official flight in the interest of aerobiology. The Carnegie Corporation of New York has made available for future use of the Committee the balance of some $2,400 remaining from the Meier grant.

COMMITTEE ON ECOLOGY OF GRASSLANDS IN NORTH AMERICA

This committee, of which Dr. V. E. Shelford is chairman, is sponsoring a movement to set aside more or less extensive grassland areas and preserve them for research and as controls against ordinary methods of utilization in connection with agricultural and other developments of civilization. Reports growing out of the work of the committee emphasize the necessity for reserving grassland areas comparable in extent and purpose to existing reservations of forest areas in national parks. These reports also list and discuss the kinds of studies of plants and animals, of their interrelations and of their relationships to soils, climate, etc., which might be made possible and be promoted by the reservation of appropriate areas. Two papers have appeared in recent issues of the *Scientific Monthly*, viz., "The Need for Research on Grasslands," by Herbert C. Hanson and C. T. Vorhies, March 1938; and "Check-Areas as Controls in Land Use," by Herbert C. Hanson, February 1939.