

determine the basis on which soil physicists and certain others must compare soils. It is contended, however, that the soil physicist should not be allowed to express ratios as percentages unless the substances so reported are actually contained in the material in the condition reported upon. The analyst does not include the moisture in a dry basis analysis for the object of the dry basis analysis is to eliminate the moisture so that the constituents of the material may be readily compared in amounts with those in other materials.

Speaking of the per cent. of moisture in moist soil the following quotation is made:

For example, 100 grams of wet soil containing 5 per cent. of water would consist of 5 grams of water and 95 grams of soil, a ratio of 1 to 19. If the soil contained instead 25 per cent. of water, the ratio would be 1-3 instead of 1-3.8 as the percentages would naturally lead one to expect.

In speaking of the particular objection referred to above the same authors write:

In using a percentage of moisture based on the dry soil instead of on the wet, the first of the above objections is eliminated. Consequently this method of expression is perfectly legitimate as long as soils having about the same specific gravity are compared.

The above is taken to signify that the soil physicist has decided that the weight of water present with each 100 parts of dry soil gives him a better basis of comparing soils than he would have if he stated the same result in terms of percentage composition: example, that 100 grams of dry soil will take up 50 grams of water is a better basis of comparison for the soil physicist that the soil contains 33.3 per cent. of moisture when saturated.

If those, including in addition to soil physicists, chemists, botanists and general agriculturalists, who have been reporting moisture as "percentage on the dry basis" would substitute something for the words per cent. or percentage in this connection all would interpret moisture results as they were intended to be interpreted.

The following phrases which serve the case equally well are suggested:

1. Ratio of water to 100 parts of dry soil.

2. Parts of water with 100 parts of dry soil, under conditions specified.

3. Moisture with 100 parts of dry soil.

4. Grams moisture per 100 grams of dry soil.

H. A. NOYES

PURDUE UNIVERSITY

THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY

THE annual meeting of the Federation of American Societies for Experimental Biology, which includes The American Physiological Society, The American Society of Biological Chemists, The American Society for Pharmacology and Experimental Therapeutics and The American Society for Experimental Pathology, held its annual meeting at the University of Minnesota, December 27 and 28, and at The Mayo Foundation, Rochester, Minnesota, December 29, 1917. The meetings were very well attended and the scientific interest was unusually strong. Every one voted the sessions an unqualified success.

The meeting opened with a joint session of the societies on Thursday morning and closed with similar joint sessions at Rochester, Saturday morning and afternoon. Friday afternoon was given to joint demonstrations and the Saturday morning session opened with surgical and scientific laboratory demonstrations at Rochester. The physiologists held three special sessions, the biochemists and pharmacologists each two special sessions, and the pathologists one special session. Some 265 guests were present at the joint dinner provided for the federation, the anatomists and the zoologists given at the Hotel Radisson, Thursday evening, December 27. The local committee provided very convenient arrangements for the meetings in Millard Hall, University of Minnesota Medical School. The membership of the society is indebted to the local committee for the very pleasant smoker and buffet luncheon Friday evening.

A special train carried the visitors to the last day's session at Rochester. A very pleasant interval was the noon-day luncheon by the hospitality of Dr. and Mrs. William J. Mayo at their home in Rochester. The session closed with a dinner under the auspices of the Mayo Foundation staff at the Hotel Zumbro and a social and smoker which followed at the Mayo Clinic assembly hall.

The officers and members of the American Federation feel under special obligation to the local committees at Minneapolis and Rochester for the

carefully executed arrangements for the comfort and success of the entire series of meetings.

CHAS. W. GREENE,
General Secretary

THE THIRTEENTH ANNUAL MEETING OF THE AMERICAN PHYSIOLOGICAL SOCIETY

THE thirtieth annual meeting of the American Physiological Society was held with the Federation of American Societies for Experimental Biology, at the University of Minnesota, December 27 and 28, and at The Mayo Foundation, December 29, 1917. The program of the physiologists was crowded from beginning to end, in fact this is the only criticism to be offered upon the success of the meeting. The time allotted did not allow adequate time for discussion. The scientific papers were of widely distributed interest, but special mention may be made of the series of investigations on the subject of surgical shock, and papers on the physiological, clinical and chemical studies and the identification of the active iodine-containing principle of the thyroid. Dr. Kendall reported the synthetic production of this substance.

The attendance of the meeting was good though not large, about twenty per cent. of the total membership. However the attendance was very representative of both the varied scientific interests of the society and of the extremes of territory. Some thirteen were present from the Atlantic coast, four from the Pacific slope. Canadian representatives were present from Toronto to Manitoba. On the whole the meeting was voted one of the most successful ever held by the society.

The following new members were elected: Walter C. Alvarez, M.D., instructor in research medicine, University of California Medical School, Hooper Foundation; A. M. Bleile, M.D., professor of physiology, Ohio State University; Montrose T. Burrows, associate professor of physiology, Washington University Medical School; E. B. Forbes, B.S., Ph.D., chief in nutrition, Ohio Experiment Station; Maurice H. Givens, Ph.D., fellow and assistant in physiological chemistry, Yale University; Alfred E. Livingston, associate in physiology, University of Illinois, College of Medicine; Fred T. Rogers, Ph.D., instructor in physiology, University of Chicago; R. W. Scott, A.B., M.D., associate in physiology, Western Reserve University Medical College; James R. Slonaker, B.S., Ph.D., assistant professor of physiology, Leland Stanford Jr. University; Frank W. Weymouth, A.B., Ph.D., assistant professor of physiology, Leland Stanford Jr. University.

The officers elected for the ensuing year were Frederic S. Lee, Columbia University, President; Charles W. Greene, University of Missouri, Secretary; Joseph Erlanger, Washington University, Treasurer, and J. J. R. Macleod, Western Reserve University, Councilor for the 1918-1921 term.

The program presented is given below:

SCIENTIFIC PROGRAM AT MINNEAPOLIS

Hunger, appetite and gastric juice secretion in man in prolonged fasting (15 days): A. J. CARLSON, University of Chicago.

On so-called "fatigue-toxin": FREDERIC S. LEE and B. ARONOWITCH (by invitation), Columbia University.

Some phases of industrial fatigue: FREDERIC S. LEE (for the Committee on Industrial Fatigue).

The quantitative measure of general fatigue: A. H. RYAN, Tufts Medical College.

Strength tests in industry: E. G. MARTIN, Stanford University.

Nutritive factors in some animal tissues: LA-FAYETTE B. MENDEL and THOMAS B. OSBORNE, Yale University and Connecticut Experiment Station.

Experimental mammalian polyneuritis: CARL VOEGTLIN and G. G. LAKE (by invitation), Hygienic Laboratory, Washington, D. C.

Further observation on the production of lactic acid following alkaline injections: J. J. R. MACLEOD, Western Reserve University.

The isolation and identification of the thyroid hormone: E. C. KENDALL, The Mayo Foundation.

Some problems of nutrition of the army, the work of the food division of the Surgeon General's Office: JOHN R. MURLIN, U. S. Sanitary Corps, Washington, D. C.

The influence of music on cardiograms and blood pressure: IDA H. HYDE, University of Kansas.

A simple method for the resuscitation of the human heart: A. D. HIRSCHFELDER, University of Minnesota.

Regulation of venous blood pressure: D. R. HOOKER, Johns Hopkins Medical School.

Blood pressure in sharks and the shock problem: E. P. LYON, University of Minnesota.

Observations in shock: C. C. GUTHRIE, University of Pittsburgh.

Shock and its control. (Paper from France presented by Dr. Lee.) W. B. CANNON.

Observations on the volume flow of blood of the submaxillary gland: ROBERT GESELL, Washington University.

The rôle of the central nervous system in shock: F. H. PIKE, Columbia University.