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BOOK REVIEW

BROWN, R. W., VAN HEVEREN, B. P. (eds.): **Psychrometry in Water Relations Research**. — Utah Agricultural Experiment Station, Utah State University, Logan, Utah 1972. Pp. XII 342.

The long awaited Proceedings of the Symposium on Thermocouple Psychrometry which took place at Utah State University in Logan, March 17 to 19, 1971 appeared with some delay in early 1974; nevertheless it did not lose much of its quality as a most recent and complete source of methodical and methodological knowledge in its field. At present the thermocouple psychrometry seems to be the most accurate and widely applicable technique for the determination of water potential in plant, soil and other substrates.

The introductory part yields very useful general information on the physical behaviour of water in soil-plant-atmosphere continuum and in addition it brings a very interesting keynote address to the symposium by D. C. SPANNER who may be considered father of the thermocouple psychrometry. Theoretical papers on psychrometry deal with the physical basis of the procedure and with the theory of calibration, both being essential for application.

A great deal of the practical part of the Proceedings describes construction and designs of the thermocouple psychrometers, most of them bringing new and stimulating ideas including automation of the measuring procedures. Detailed papers are devoted to the determination of water potential in soil and other media in samples as well as *in situ* under different conditions offering again suggestions which may be applied to many problems in the research practice. The same is true for the papers dealing with the determination of water potential in plants and presenting as theoretical considerations on the significance of the measurements as the description of special techniques.

The last part includes papers on the use of psychrometry in the micrometeorology. The book is supplemented by Table Appendices with numerical and conversion tables on physical properties of water vapour and humidity as well as a welcome glossary of terms and definitions, dimensions and conversions of units.

The book containing forty one contributions of a very high standard is dedicated to the memory of Dr. Sterling A. Taylor, who was a well-known authority in the field of soil and plant-water relationships. It may serve as an outstanding source of new information in this rapidly developing methodical field concerning many scientific branches.

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