Book Review

SOIL WATER INTERACTIONS, Mechanisms and Applications by S. Iwata, Tabuchi with B.P. Warkentin, Published in 1988 by Marcel Dekker, Inc, Newyork and Basel.

The interaction between soil and water is of interest for a number of fields and particularly so for hydrology. This interaction is involved in most of the fundamental mechanisms of soil behaviour The occurrence and movement of soil behaviour. The occurrence and movement of soil water is associated with the processes of ion exchange and heat transfer. There have been notable development in understanding the mechanisms of flocculation and dispersion of soil particles in soil solution, soil freezing, soil swelling, water uptake by plant roots and other similar processes. In Japan, number of studies have been carried out and reported by Japanese Literature. This book by Japanese authors provides useful coverage of :

(1) Energy Concept and thermodynamics of water in soil.

(2) Interaction between soil particles and soil solution

(3) Interaction between particles through water

(4) Capillarity

(5) Water flow through soil

(6) Unsaturated water movement

(7) Field Water regimes.

The chapters contain both the physical and mathematical descriptions of the various soil-water phenomena and the applications to soil problems, and also provide a number of references for further use. The book would be useful reference for research and studies in hydrological problems involving soil water interactions.

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