

Pea Gravel 'Block Mulch' Cuts Water Evaporation

The University of California has obtained a patent on a porous block mulch invented by UC Riverside scientist Sterling J. Richards.

Ornamental growers and others will be able to save water, reduce evaporation, eliminate soil compaction, reduce salinity buildup and improve weed control by using such blocks on the soil surface, the inventor believes.

The blocks, made of pea gravel held together by fine sand and a small amount of cement, can be constructed in any shape or thickness. Surrounding or adjacent to plantings, the blocks are placed on top of ground which is to be watered.

Water goes down through the block as easily as through a sieve. But water does not evaporate upward through the irregular passages. This has two advantages: it reduces water loss and keeps salts from being "sucked" to the soil surface as water travels upward when evaporation takes place.

Compaction is reduced simply because foot or light wheel traffic doesn't touch the ground.

Weed control—although not tested by the inventor—would presumably be improved in the same way that any mulch does—by preventing weed emergence and by cutting off sunlight.

The block is not yet commercially available, said Dr. Richards. There are no figures on what it would cost, but he thinks it should be about the same as or less than patio paving blocks.

Whether the blocks would save enough water to be economically justified, he does not know. But with water becoming more expensive such a means of reducing losses and salinity will be more in demand.

Testing water use by citrus seedlings, Dr. Richards found that unmulched trees required six irrigations over a 40-day period, while only two irrigations were needed for trees growing in soil covered by the mulch blocks.

In a laboratory experiment, comparing evaporation from bare soil with that from soil covered by the blocks, the UCR soil physicist noted six times as much water loss from the bare soil.

There was little difference in soil temperature between the block-mulched and bare soils.



Dr. Sterling Richards, University of California scientist at Riverside, shows how easily water goes through porous block mulch he invented. Used around trees or other plants, blocks reduce water loss, soil compaction, salt buildup, and weed growth. UC has obtained a U. S. patent and has control of commercial license agreements.

Industry People On the Move



Amchem Products, Inc., Ambler, Pa., announces two recent appointments in its Agricultural Chemicals Division, according to M. B. Turner, vice-president and general manager. Stanley B. Seagler has been named to a sales position in the southwestern district, and Ivan J. Jones has been assigned as a district sales manager in eastern Canada.

Prior to joining Amchem, Seagler was plant manager of the Austin Farm Service in the Plainview, Texas, area. Jones formerly was a sales representative and supervisor of Canadian Industries, Ltd., Chatham, Ontario, and a field representative of Green Giant of Canada, Ltd.

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The University of Maryland announces the appointment of Dr. Andrew J. Powell as assistant professor in the Department of Agronomy, according to department head Dr. James R. Miller.

Dr. Powell, who received his B.S. and M.S. degrees from the University of Kentucky, and his Ph.D. from Virginia Polytechnic Institute in 1967, will conduct research and do extension work in turf management, in addition to teaching this course and advising graduate students.

Prior to joining the agronomy staff, Dr. Powell served in the Army at Fort Bliss, Texas, as a Captain in charge of golf course operations, where he helped

organize the Rio Bravo Turf and Golf Course Superintendents Association.

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Ansul Company, Marinette, Wis., announces the appointment of Dr. Ronald J. Wingender as an analytical research chemist in its Madison, Wis., research center. He will work in conjunction with the company's current pesticide studies and will conduct residue analyses in connection with new product screening programs.

From 1961 to 1964, Dr. Wingender worked as a chemist with the Forest Products Laboratories in Madison. He received his bachelor's degree in chemistry from the University of Wisconsin, his master's degree in physical chemistry from the State University of Iowa, and his Ph.D. in analytical chemistry from the University of Wisconsin last March.

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Hypro, Incorporated, a subsidiary of Lear Siegler, Inc., appoints Ramon Pareja chief engineer and Maurice H. Nelson products and applications engineer.

Pareja, who joined Hypro in 1962, will direct a department of project engineers and draftsmen on new product development aimed at increasing the company's industrial and agricultural markets. A native of Spain, he went to Venezuela in 1954 as a hydraulic engineer with the Caroni River electrification program.

Nelson will help coordinate engineering, customer sales and marketing activities in his newly created position. He also will have responsibility for field testing of new products and improvements, in addition to relating customer application needs to the sales and engineering departments. Before joining Hypro in 1955, Nelson was employed by Northern Ordnance, Minneapolis, Minn.