

[54] **SELF-CONTAINED HYDROPHILIC PLANT GROWTH MATRIX AND METHOD**

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Related U.S. Application Data

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[51] **Int. Cl.²**..... **A01G 9/10**

[58] **Field of Search**..... 47/37, 34.13, DIG. 7, 47/56, 57.6; 260/2.5 R, 2.5 A, 2.5 BE; 71/64

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[57] **ABSTRACT**

Methods of making and a self-contained hydrophilic plant growth matrix having excellent water holding properties for germination of seeds, propagation of cuttings and growth of plants are disclosed. The hydrophilic plant growth matrix is a dried, gelled plant growth particulate material mix, a cohesive plant mass which retains its shape and dimensional stability after rewetting. It may be formed in various shapes, such as pellets, plugs, cylinders, rods, blocks and the like. The gelled plant growth mix may be inserted in a plant matrix carrier or container which does not confine or impede root growth in any direction, such as an open cell foam, and preferably one which contains necessary nutrients for plant growth. The dried foam matrix has from about one-half of one to about five percent by weight, of a particulate, water-insoluble, water-swelling, cross-linked polymer dispersed throughout based on the dry weight of the plant growth particles. A gel of from ½ to 3% polymer in water is made and which is then mixed with and coats particles of growth material and dried, preferably to about 1% moisture. A number of examples is set forth and the drawings illustrate various physical embodiments of the invention.

28 Claims, 12 Drawing Figures

