

Preface

WATER Everywhere

Dr. H. Marc Cathey

It has many names according to how our eyes experience what it can do. We call it fog, mist, frost, clouds, sleet, rain, snow, hail and condensate. It is the one compound that all space explorers search for when they consider the colonization of a new planet. It is the dominant chemical in all life forms and can make almost 99 percent of an organism's weight. It is also the solvent in which all synthesis of new compounds—particularly sugars, proteins, and fats—takes place. It is also the compound that is split by the action of light and chlorophyll to release and repeatedly recycle oxygen. It is the substrate for “the-lungs-of-the-earth”.

The compound is water. It is now the primary chemical under its greatest challenge as our earth's population exceeds 6 billion people. Prolonged periods of drought the last several years have brought agricultural crop losses, destruction of habitats, and restrictions on industrial, recreational, and home water use.

There is much that every citizen can do to reduce water consumption. We can help extend our limited water resources by using the most efficient water saving technologies for our dishwashers, showers and toilets. We can also collect rainwater from our roofs and expand the use of gray water.

But we must do more. At the start of the new millennium, we must now assess what we can do to conserve

and recycle water for our plantings and landscape – among which, the lawn is often the most conspicuous

user of water.

Grasses and the surrounding landscape of trees, shrubs, perennials, food plants, herbs, and native plants seldom can be left to the fickleness of available rainfall. With landscaping estimated to contribute approximately 15 percent to property values, a responsible management decision would be to make

the best of all water resources.

We are fortunate that the technology of hydroponics, ebb and flow, and drip irrigation have replaced the wasteful sprinklers and hand-held watering hoses. They can

now be connected to timers to conserve even water supplied by entrapment ponds or cleaned industrial wastewater. What we now need is to create model systems that conserve water while insuring the most responsible solutions.

Green is the color of hope. In the green of our plants lies our hope for survival.



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This volume provides assurance to everyone that the quality of our environment will not be compromised and we can look forward to years of truly green environments.



Dr. H. Marc Cathey is President Emeritus of the American Horticultural Society. He was Director of the U.S. National Arboretum for 10 years, having previously spent 24 years as a research horticulturist at the United States Department of Agriculture. He and his work have received the highest possible honors from an exceptionally large numbers of professional organizations as well as governmental and educational institutions. Dr. Cathey received his bachelor's degree from North Carolina State University and both his masters and doctoral degrees from Cornell University.