

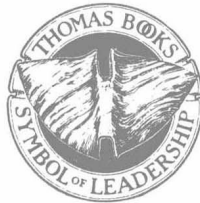
DAMON R. OLSZOWY, Ph.D.

HORTICULTURE
FOR THE
DISABLED AND
DISADVANTAGED

HORTICULTURE FOR THE DISABLED AND DISADVANTAGED

By

DAMON R. OLSZOWY, Ph.D.



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PREFACE

TWO hundred years ago, Americans were granted "life, liberty and the pursuit of happiness." For the disabled and disadvantaged of our society, the ability to participate with dignity in the activities of everyday living and to take advantage of their "inalienable rights" is just beginning to be realized. Today, there are an estimated 50 million Americans that have some physical impairment. With about 444,000 new cases of stroke alone occurring each year, it is predicted that, by 1980, for every able-bodied individual, there will be one person with a physical disability, chronic or otherwise.

Moving into its third century, our country turns its focus, not on the accomplishments of the past, but on the factors compelling a new response to meet the needs of those who are disabled and disadvantaged. Great progress has been made in the treatment of many individuals. Special services and innovative programs are being developed to meet their needs. In general, there is a more enlightened sense of equity with respect to minorities.

One such innovative approach is the use of horticulture for therapy and rehabilitation. Horticulture has been employed both experimentally and casually over the years; however, only recently has it been acknowledged and appreciated as a therapeutic and rehabilitative medium. There does exist a large body of relevant information and knowledge, and also a set of principles that makes horticultural therapy a distinct discipline. Therefore, there is a need for a comprehensive text that sets down these principles, and also that provides guidelines and up-to-date information to individuals, groups, and institutions who plan to establish a horticultural program.

The observations, methods, and activities described in this book were used in a pilot program conducted by the Bartlett

Arboretum of the University of Connecticut (UCONN) in cooperation with the Easter Seal Rehabilitation Center of Southwestern Connecticut (ESRCSC). The Connecticut Commission for Higher Education provided a community service grant to help support the program under Title I HEA.

Observations made by staff members of the ESRCSC during the physical restoration phase of patient admission and through periodic follow-up after discharge indicated that non-involvement, inability to return to gainful employment, and lack of purposeful daily activities were some of the major negative characteristics of the present rehabilitative process. Institutions have long recognized these problems and are striving to lessen them through horticulture. This was reflected in a nationwide survey conducted in 1968 by the Menninger Foundation in which 64 percent of the 216 hospitals responding to a questionnaire reported that they had some kind of garden or greenhouse program. The Menninger Clinic has for many years used garden therapy in the rehabilitative process. New York University Medical Center's Institute of Rehabilitation Medicine has enjoyed the use of a therapeutic greenhouse since 1959 in which patients find joy and solace and learn to live with dignity and independence.

Many existing therapeutic communities for the disabled and disadvantaged are limited to physical restoration, and there is a need to expand the rehabilitative process to include social, emotional, intellectual, and vocational development. Future programs utilizing horticulture will aid the disabled and disadvantaged to adjust to the limitations of their disability, encourage them to develop an interest in their surroundings, and to find challenge and meaning in life through renewed confidence and achievement.

The Arboretum's program in "Therapy and Rehabilitation through Horticulture" consisted of two phases. The initial phase provided student-volunteers with a basic understanding of horticulture and its role in the rehabilitative process. Phase I of their training was conducted at UCONN'S Bartlett Arboretum. The second half of this training took place at the ESRCSC. Various faculty members, rehabilitative staff, physi-

cians, therapists, community leaders, psychologists, and social workers were involved in the training program. Lectures and workshops included such topics as psychological aspects of horticultural therapy, use of horticulture as a therapeutic aid, elementary botany, basic materials and equipment for plant growth, analysis of basic planting routines, plant propagation, growing vegetables and flowers, insect and disease control, plant nutrition, forcing bulbs, planting terrariums, and use of plant material in arrangements. Phase II involved the implementation of horticultural knowledge and expertise gained under Phase I. These horticultural activities were designed to reinforce physical success made in other therapeutic areas in conjunction with social, psychological, and intellectual benefits. The student-volunteers interned at the ESRCSC, the Liberation House for drug abusers, the Franklin F. Dubois Day Treatment Center for the emotionally disturbed, Quintard Center for Senior Citizens, and the Norton School for children with learning disabilities.

The experience gained from this pilot program demonstrated quite conclusively that horticulture is a valuable medium which can be used therapeutically for both behavioral change and physical restoration in children, adults, and senior citizens. Hopefully, this program and others like it will serve as a model for future programs.

This book is designed to be a guide with suggestions and procedures for initiating and conducting a horticultural program for the disabled and disadvantaged. There is a section that describes the physical and psychological characteristics of various groups and their implications for horticulture, and an activity section that lists, codes and describes various horticultural activities and projects that can be adapted to meet the needs and capabilities of these various groups. The book will be of special aid to those studying in the fields of public recreation, occupational therapy, recreational therapy, social work, and special education. More specifically, it is intended to provide practical information that can be used by students in horticultural therapy, by volunteers and garden clubs who wish to begin a program, and by other community organizations and

agencies that provide special services to the disabled and disadvantaged.

This book will achieve its purpose if it stimulates a better understanding of the needs of these groups, and if it motivates others to establish similar horticultural programs.

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**HORTICULTURE
FOR THE DISABLED
AND DISADVANTAGED**

Chapter One

PHILOSOPHY OF HORTICULTURAL THERAPY

THE ROLE OF HORTICULTURE IN TODAY'S SOCIETY

THE great American horticulturist Liberty Hyde Bailey has characterized the field of horticulture as having three major aspects: the scientific or biological, the public or business, and the ornamental or aesthetic. Through the years, the emphasis has changed from one aspect to another. The scientific aspect has received the most attention. Horticulture is developing technology nourished by many sciences, and new, significant contributions have been made. The "Green Revolution" has resulted in high protein grains, improved hybrid varieties, and increased agricultural production. The business or public affairs aspect involves economics, and it is closely identified with higher standards of living and meeting the basic needs of society. Never before has there been more interest in growing vegetables, flowers, and houseplants. Experts in the field call this growing interest in home gardening a "horticultural revolution" that will alter the face of our nation and the lifestyle of our people. Indeed, many are calling this urge to return to the land, a "horticultural renaissance." The impetus for such a "revolution" is undoubtedly due to inflation, recession, and the energy crisis. Horticulture has also become a national craze with our young people. The "green scene" is certainly due to the concern for the environment and ecology and the vogue for organic foods. A more important factor is the rejection of materialistic values and the search for simpler and more rewarding interests. These attitudes are reflected in the aesthetic and human appeal of horticulture. Even though horticulture and its social implications have received the least attention, the values to this aspect of

horticulture are likely to influence modern society in the future. These values deal with affection, with pleasure, with beauty, and with satisfaction. It is because of some of these values and their association with healing that medicine has turned to horticulture. Horticulture can be excellent therapy following an illness. The nervous tensions of modern living are reduced by creative and muscular outlets associated with gardening. Gardening can add beauty and serenity to the landscape of the human spirit by helping those in need find a more satisfying life.

Horticulture is a field that affects and influences all people in many ways. As society changes, there are pressures to find new ways to adjust and to meet the needs of everyday living. New skills and attitudes towards plants and gardening are emerging. It is imperative that the base of horticulture be broadened to include more than business, science, and art. Today's horticulture encompasses much more than "garden cultivation"; it can also contribute to the total life experience. Horticulture may become a vocation, a hobby, or a means for exercise and health. How we use plants in our everyday lives, in industry, and in solving many of today's problems will reflect this new role for horticulture.

"Sow a seed, plant a bulb, raise a flower, grow a tree, harvest a crop of beauty. Isn't that a good way to help the world grow better?"

— Ortho Chevron

HORTICULTURE — THERAPY — REHABILITATION

In the past, arts and crafts, music, and other recreational activities have been used for therapy. Horticulture used as therapy is probably the oldest of the activity therapies, but the last to be recognized for its merits. Today, the value of horticultural activities as another vehicle for therapy and rehabilitation is rapidly gaining recognition. The word "horto-therapy" was first used by Richardson Wright in 1945. It was first called "horticultural therapy" in 1948 by Ruth Mosher. Various other names have been used to distinguish this field of endeavor. Such titles as "flora therapy," "hort-therapy," "hortitherapy,"

and "horticultural therapy" are currently being employed.

Unfortunately, there is a great deal of confusion about what is therapy and what is therapeutic. Narrowly conceived, therapy is a medication, a surgery, or a treatment for a disease or behavioral difficulty. The present day concept of therapy includes total personality needs. It is concerned first with the individual and second with the disability itself. The universal aim is to help people by improving their physical and mental well-being. A situation may be therapeutic if it is structured to insure a predicted outcome. It may be direct or indirect, but the most beneficial results often occur indirectly. The term "rehabilitation" did not exist prior to World War I. It was previously referred to as "physical medicine." Like therapy, the present day concept emphasizes total rehabilitation. The objectives of rehabilitation are to improve the physical, mental, social, and vocational aptitudes so that a person can live happily and productively. Rehabilitation no longer has a beginning or an ending point. It has come to include many more services than it once did. Character development is just as important as the attainment of manual skills. Total rehabilitation means to live and to function again.

The basic problem in both therapy and rehabilitation is a psychiatric-mental health problem. The person engaged in horticultural therapy must realize that his patients or clients have trouble enjoying life without his help. Learning about the joy of living is essential to *all* people regardless of their disability. Dr. Karl Menninger sums it up best when he writes about the activity of therapists as "people who teach the art of living to persons who may never have quite learned it, or if so, have lost it for a time." The point here is that too much emphasis on what is therapy and what is therapeutic may destroy the spontaneous joy in helping others that is so important. If a person tries to be a therapist and deals in what he thinks as difficult, esoteric, and intellectual, this person is bound to communicate this feeling to his patients or clients. Then, the experience can hardly be considered therapeutic. Doing things we do best and with full enjoyment is the best way to make use of ourselves as therapeutic agents. The main challenge is to motivate any

group of people in any setting and then use these responses to foster, maintain, and promote physical, social, and emotional health.

Horticulture used as therapy can be planned to provide specific therapeutic aims. It can be used for occupational therapy, for physical therapy, for recreational therapy, and for vocational therapy. The activities can be designed to meet the patient's needs; they can range from providing finger and manipulative activities to strenuous digging for those learning to use an artificial limb. Such activities are valuable because they tend to divert attention from the appliance to the activity. Moreover, it is possible to assess a patient's ability to walk, bend, lift, carry, and kneel, in addition to manual dexterity. The ability to comprehend instructions and to concentrate can also be assessed by observing the behavior and achievement in such activities. With careful planning, horticultural activities can become a useful aspect of the over-all therapeutic program.

PEOPLE AND PLANTS

The use of horticulture as an activity for therapy and rehabilitation is unique because the medium is living. Recent evidence indicates that there is an interplay between human behavior and garden activities. Plants, flowers, and trees satisfy some psychological need in man. Everyone is in daily contact with some form of plant life. Doctor Hugh Iltis, a taxonomist at the University of Wisconsin, believes that man is "genetically programmed" to require living plants in his surroundings. According to Doctor Iltis, "man, the animal, evolved in nature among plants, shrubs, trees, flowers and fruits, in a seasonal climate in which the living ecosystem was an integral part of his most basic being and functioning. Thus, civilized man needs these facets of the environment, not as luxuries and amenities, but as absolute and inalienable rights of his biological body." Other research in human behavior seems to indicate the existence of a symbiotic relationship between man and plants. Plants need man's care to develop best, but man also requires contact with plants to develop and maintain a mental

wholeness. Plant life is a link that binds man to his world and to his environment.

The psychology of using plants for therapy and rehabilitation stems from the basic fact that growing living things fulfills certain needs in man. With respect to therapeutic and rehabilitative qualities of plants, Andrew Barber of the Menninger Foundation says, "germination of seeds, vegetative growth, flowering and maturation have close parallels to the basic concepts of human development. Common gardening tasks such as watering, fertilizing and protecting plants from bad weather also have human connotations. The physical structure of a greenhouse has been likened to a mother's womb and provides an atmosphere of security." Most humans react to plants in various ways. For some, growing and caring for plants presents a challenge. For the disabled and disadvantaged, plants provide living reality. It involves the acceptance of responsibility and a hope for achievement and success. Working with plants provides for experience in dealing with loss, which is a common therapeutic concern. Working with plants teaches patience; this delayed gratification is reflected in the slow but continuous and stable process of a plant producing a flower of beauty. Indeed, the discovery that new life can spring from a "dead" seed can stimulate determination and motivation to alter one's lifestyle. There is a quiet mystery to plant growth that helps one to relax and become more receptive to rehabilitation. In "Some Psychological Benefits of Gardening," Dr. Rachel Kaplan states that "activities such as growing seeds, rooting cuttings and potting plants require intense concentration of a type that produces a rest from the effort otherwise required for attention, and also provides rest from worries and cares in a person's mind."

With plants as a medium, social interaction is increased because it lends itself to group activity. It may be a small group in a hospital setting or it may be the disadvantaged in a ghetto planting a community garden. Whatever the setting, the activity provides for new experiences in living for many who have been deprived of human growth. Unfortunately, our society has been alienated from much of the living world. To the urban

dweller and the disadvantaged, the growing of plants communicates deeper values in living in an environment that has been hostile to such values. Sociologists have defined some of the deficiencies of distressed urban areas. These include the need for stimulation to break the monotony of daily life, a need for a sense of community, and a need for mastery of one's surroundings so that one can have some control over what happens around him. It has been observed that many problems in urban areas can be alleviated by providing opportunities for people-plant interactions. As adviser to the New York City Housing Authority Tenant Garden Contest, Charles A. Lewis found that garden plots and related activities resulted in new attitudes toward the community. Vandalism was reduced in areas where there were gardens, and tenants took pride in their accomplishments by improving their buildings and grounds. In "Plants as Therapy," Elvin McDonald quotes Robert Steffen, farm manager for Father Flanagan's Boy's Home in Boy's Town, Nebraska:

Gardening is good therapy for young and old. The earth has great healing power. It is the plant of course which makes it all possible. Simply realizing that we could not exist on this planet without the plant is significant. Learning how and why this is true can occupy much of a lifetime and be only a beginning. Plants are miraculous creations. They hold so many secrets that they present a challenge and a hope for men of all ages, rich and poor, learned and not so learned. Plants are indeed a source of great hope for our time and for the many people who are disturbed, frustrated and concerned about the future. Knowing and understanding plants can give them hope and reassurance that with death there follows life and the great cycles of seasons are part of even greater rhythms of the universe that are not dependent on mortal man's manipulation.

Overall, personal attitudes undergo a change as a result of working with plants. Individuals that can benefit the most are those under stress, either physical, psychological, or sociological. Their association with plants helps to alleviate their stress and create an atmosphere for health and improvement.