

again become exposed to any strain.

Symptoms:

Although much has been written on early foliage symptoms of Dutch elm disease, most descriptions either are merely repetitions of earlier writings, or are so superficial that they do not reflect different symptom patterns that may signify differences in degree and timing of infection. The so-called typical "first evidence of infection," as the single wilting branch "flagging" in sharp contrast to the remainder of the foliage, has often been used as a model to educate the public. In reality, however, the first evidence of the disease in a newly infected tree is probably not often visible to anyone but an investigator, who knows precisely when an inoculation was made. According to this writer, the first actual evidence of a new infection, when terminal crotches are inoculated, is a slight distortion or curling of leaves or leaf margins nearest and terminal from the point of introduction and development of the fungus (in research, the inoculation point). As such leaves bend inward on themselves, they show only a faint loss of green and their dull green undersides are exposed, giving them a dull, grey-green tint. This distortion and faint discoloration without other symptoms are rarely noticed, as they occur only in terminals, and are not readily discernible at this point except to a trained observer. Shortly thereafter, both yellowing and/or browning of foliage is often common, as well as premature abscission of leaves at all stages of infection, although many leaves do not abscise at all. But even such later symptoms may escape notice, since they occur only on branch ends distal to small twig crotches, often only high in the crown and not visible from the ground. In fact, it is not uncommon for

many such infections to go unnoticed in the year of inoculation, because further symptoms may not occur that year at all. More often than not, in studies by the writer with various single strains of the causal fungus, this has happened with hundreds of inoculations. But this is an account only of terminal inoculations in twig crotches in wood of 2 and 3 years of age, designed specifically to simulate introduction of the fungus where the European elm bark beetle does it naturally.

When the fungus is introduced into larger stems supporting larger areas of foliage, similar symptoms as described above

are more sudden, conspicuous and easily detected. This type of inoculation is often described as producing such severe wilting that the succulent terminal collapses, bends and becomes the so-called "shepherds crook," so often described as typical. In the view of the writer this symptom is neither common nor typical in the year of inoculation. When it does occur, it signifies that the fungus had time to build up a "massive head of wilting steam," and such a symptom can occur only while terminals are succulent and when active growth is in progress (i.e., early in the growing season). Thus,
(Continued on page 24)

Dead trees such as these killed by Dutch elm disease demonstrate the tremendous problem and potential high cost of removal.



Briefly:

Freeman L. Parr, Parr and Hanson, Inc., Hicksville, N. Y., is a professional arborist and the current ISTC president. In the following article, WTT is happy to present his views regarding both past performance and outlook for the future of the Conference. Parr as a businessman hopes to create interest in the organization by many. He believes the ISTC needs to devote still more effort to educational projects, and thereby become a great help in solving tree care problems throughout the world.

International Shade Tree Conference President

Reviews History and Predicts Progress for Group

Growth for I.S.T.C.

By Freeman L. Parr

INTEREST in an organized tree care movement goes back to the 1920s. At that time, many firms throughout the country were forming organizations devoted to the care and maintenance of trees. Colleges began to offer subjects pertaining to arboriculture.

Eventually, a group of people decided it would be worth their while to start up a yearly conference, where those interested could discuss the many and varied problems of tree care. Thus, came the birth of the National Shade Tree Conference, later known as the International Shade Tree Conference.

Prime movers in this organization were the men interested in commercial application of shade tree care, although most of the educational work was handled by university-trained people and people known at that time to hold a scientific classification.

However, during the growth of the organization the commercial arborist was one of the most interested in devoting a great deal of time and money to the projects of the ISTC. From the first president holding a commercial classification until the

present time, there have been 9 presidents serving the organization. While it may be thought that the commercial arborist has a selfish interest, his willingness to put time and money into organizations such as the ISTC has greatly aided the growth and activities engaged in by the group.

Commercial Interest

The values of the Conference regarding its members changed



Freeman L. Parr

in relation to the era through which it passed. During the war years, the representation through the ISTC allowed all people engaged in commercial tree care work plus other interested people to speak with one voice to the national government concerning their rules and regulations. The outgrowth of this need was the formation of the trade association (National Arborists Association), which served to represent the trade during the forties.

During the growth of the ISTC we were fortunate to have two men of high caliber and repute to help remedy problems. Dr. L. C. Chadwick, who served as secretary-treasurer from 1938 until 1965 when he was elected executive director, has been active in the group for a period of thirty years. Dr. Paul E. Tilford joined as editor in 1939 and served until 1967, at which time he resigned to become the mayor of Wooster, O.

During this time there was a parallel growth of the NAA. Dr. Tilford served as director during the entire development period of this organization and until 1966.

As the educational function of the ISTC grew, many volumes of the proceedings are a history in itself. One outstanding work was "Transplanting of Trees and Shrubs in the Northern United States," which received wide circulation throughout the country. Other works followed, the most noteworthy being the shade tree evaluation work done in cooperation with the NAA. This was one of the most widely distributed booklets ever published by the Conference, and it is used throughout the country as a basis for shade tree evaluation. A model street tree ordinance was published and was well received by municipal people throughout the States.

While all this work was being coordinated on a national basis, there was being formed through-

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out the different sections of the United States the affiliated chapters of the now International Shade Tree Conference. Through the work of these chapters, much of the grass root accomplishments have helped the individual members solve their day-to-day local problems. It is also in this area that the future of the Conference lies. A strong chapter growth will indeed vastly strengthen the national coordinating structure.

Regional Emphasis

The Western Chapter is divided into six regions. Each year meetings held in the various regions are followed up by the western meeting in Phoenix, Ariz. The Mid-Western Chapter encompasses the large areas around Chicago and St. Louis. Not only do they have a yearly chapter meeting, but there is much cooperation between themselves and such organizations as the St. Louis Arborist Association. This is also true of the Ohio chapter, which has a great number of International members within the state. They meet each year at Columbus in conjunction with the Ohio Nurserymen's Association and have brought forth such developments as major medical coverage for the members, street tree evaluation programs, and a statewide safety program worked in conjunction with the State of Ohio. Our Canadian chapter across the way has been the sponsor of several international meetings and has gained great support in the parks and municipal systems throughout Canada. One of the younger chapters, the New England Chapter, was recently able to coordinate the many organizations within their states (such as the Massachusetts Tree Wardens and other societies) into one large meeting at Amherst College. This was well attended and offered an excellent program that was interesting and informative. This chapter has made

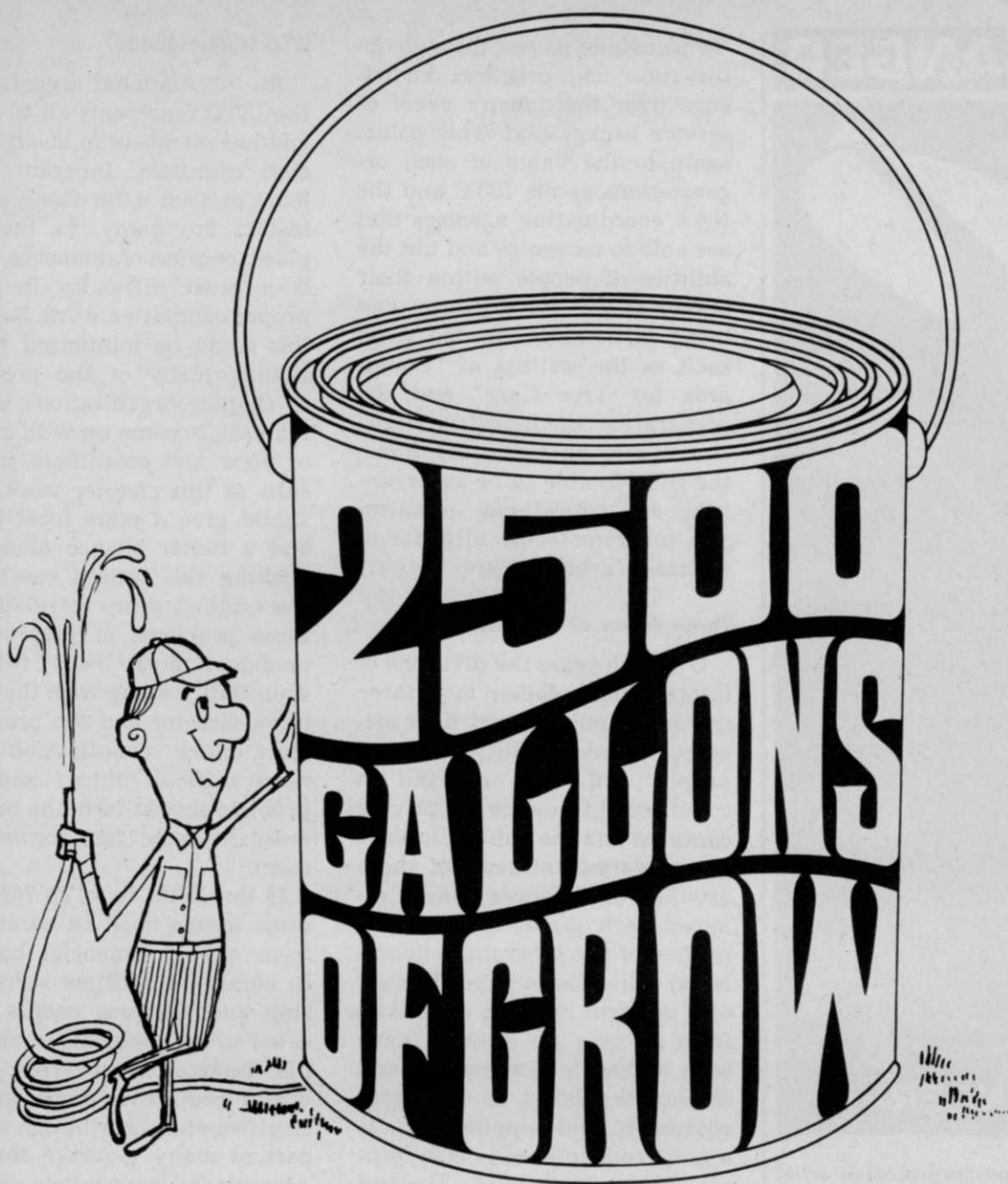
great strides in the proper direction, which is of the greatest value to the chapter—that of coordinating all local associations into an organized level so that they may save time and have the facilities for proper meetings. There is a great problem of distance in the Southern Chapter, which runs from the state of Maryland to the tip of Texas. It is hoped that more regional meetings can be held in the future to tie together this vast area. Although lacking in number this past year, one of the better programmed meetings of the year was held at Orlando, Fla. This same thing, in a smaller way, holds true of the Pennsylvania-Delaware Chapter which has strong groups in the Pittsburgh and Philadelphia areas.

Strength in Chapters

In general, the chapters have news letters which are sent to members to keep them informed of happenings in their local areas. The continued development of these chapters, in coordination with the ISTC, means a much stronger over-all organization.

As in all things, time moves on and changes come about. At one point there was very little information about tree care in written form. Over the past number of years state and local Extension Services have assigned some extension people to cover that phase of horticulture in which the public is most interested (lawns, trees and shrubs). This action is becoming a great force throughout the country and makes it much easier for the average man to secure proper information.

There is inherent danger in certain points to allow government agencies to become theoretical authorities on all phases of tree care. If tree care organizations are to continue their own background of authority, they must do their own practical research and application of



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the principles gained through observation and practical knowledge over their many years of service background. This points again to the value of such organizations as the ISTC and the NAA coordinating agencies that are able to recognize and use the abilities of people within their organizations to institute and bring forth much needed work such as the writing of "Standards for Tree Care" and the preparation of industry statistics. While on the other hand, the ISTC is able to be an organizing and educational organization to promote the ultimate in informed arboriculture.

Three Areas of Interest

Over the years the divisions of interest have fallen into three groups: municipal and park oriented people; utility oriented people; and those engaged in commercial tree care for private concerns and the public. Because of the varied interests of these groups, conferences have allowed each group to present a portion of the program, conducted on split-session days. Because of a uniform interest, exhibitors from all over the country have been invited to demonstrate and display the latest in tree care equipment and supplies. This is a great convenience to busy people throughout the United States, where at one point and at one time of year they may gather to see new equipment, to hear about the latest in tree care problems and to discuss these problems with people in their own line of work. This coordinating educational function is of great value and one that certainly should be expanded.

In projecting the future, there seems to be no conflict between the ISTC and the NAA. In a true sense, the ISTC is the coordinating educational association, while the trade association is a functioning organization to promote the best things for commercial tree care people.

ISTC Is Worldwide

An international organization, the ISTC represents all 50 states and has members in about 7 foreign countries. Inherent problems in such a far-flung organization are many. In the first place, because of distances, there is a great difficulty in doing proper committee work. Some of this could be minimized by assigning many of the problems to chapter organizations, allowing each to come up with a point of view and coordinate the results of this chapter work. This would give a more local flavor and a better chance of accomplishing the desired results. In the original setup in relation to these problems at present, the president must have full responsibility along with the executive director and the president elect. Such coordination is a most difficult thing; and this problem should form the basis of reorganization for accomplishment.

If the ISTC is to go forward, some means must be secured to have enough financial backing to employ a fulltime secretaryship and vigorous people dedicated to the problems of all people interested in trees. This would require a much greater sacrifice and contribution on the part of many to make this the educational association that it should be. Greater coordination of all people interested in tree care problems will be needed.

Need for Projects

Through the coming years the ISTC should devote itself to the greatest extent to its education projects. It should continue to represent all areas of interest in trees. With 40 years experience as a background in bringing together all of these interested people, certainly the problems will be met and its future will be one that supplies the greatest help in solving tree care problems throughout the world.



Microfoil boom developed by Amchem Products, Inc., was demonstrated to Hyacinth Control Society following presentation by John H. Kirch of Amchem.

Inland Water Use Demands

Aquatic Weed Control

The Hyacinth Control Society, dedicated to control of noxious aquatic weeds, has become a leader in information on control and management in this relatively new but increasingly important phase of vegetation control. WTT reports on the 8th annual meeting of the Society, held last month at Winter Park, Fla.

NOXIOUS aquatic weeds must be controlled if inland waters are to be used. Such waters are a valuable resource nationwide, too important economically to permit takeover by aquatic weeds.

For example, take the case of Citrus County, Fla. A special campaign advertises this area as

Florida's outdoor wonderland. Yet, noxious weed problems in the Crystal-Homosassa river areas has reduced beauty and robbed the famed waterways of this area of much of their value for recreational purposes. While water hyacinth problems have been controlled, 2 foreign weeds introduced only 7 years ago have



Robert D. Blackburn and Dr. Lyle Weldon of the Agricultural Research Service, USDA, at Fort Lauderdale, discuss results of research herbicidal plots on Lake Virginia at Winter Park, Fla. Strip method of treating has been used to successfully avoid fish kill.

about 200 commercial operators, municipal, county, state, and federal officials, company personnel and others charged with solving aquatic weed problems, gather for a 4-day session. They present papers on subjects which include practical control, new methods, chemicals, and basic research. This latest meeting attracted visitors from northern, midwestern, and even far west states. Interest in the session which goes far beyond the southeastern US where aquatics are more rampant than in other areas at the present time indicates that the aquatic problem has become a national menace.

Society President Reports

Society president Robert D. Blackburn, biologist for the Agricultural Research Service,

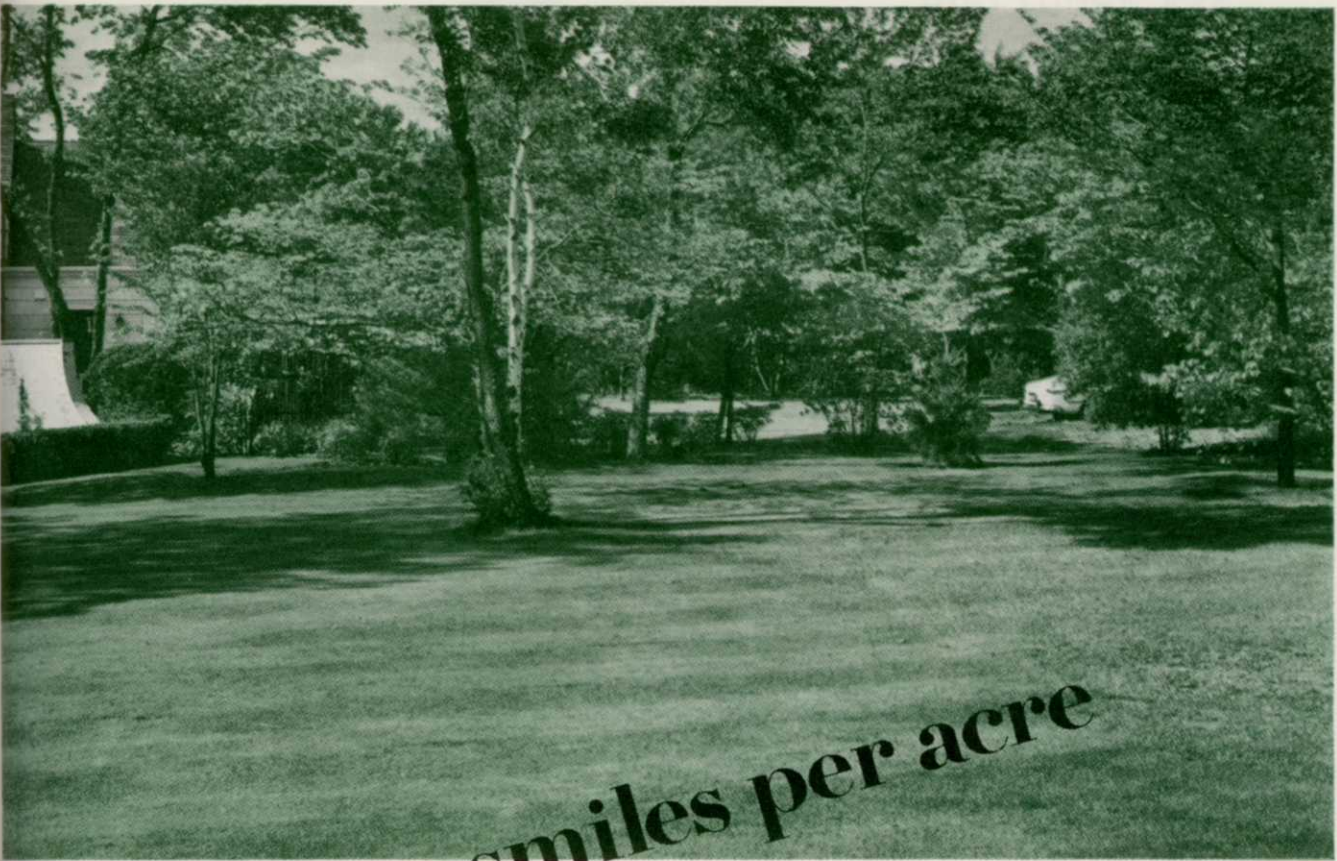
blocked navigation and recreational use on more than 12,000 acres of these waterways. One business development, valued in the hundreds of millions of dollars, has been declared bankrupt primarily because of aquatic weed problems in this Citrus county area alone. Several groups of citizens are now requesting that their waterfront property be devalued for tax purposes because of the aquatic problem. Should this precedent be set by court action, it could lead to property devaluations throughout the state of Florida, costing millions of dollars in taxes needed to fight the aquatic problem. The problem of Citrus County, Fla., regarding aquatic weed infestation is not an isolated case. It is but one such instance related by E. R. Hafner, executive secretary of the county commissioners of the state at the 8th annual meeting of the Hyacinth Control Society, recently at Winter Park, Fla.

The Society annual sessions have become the foremost forum for aquatic weed control information in existence. Each year,



Members attending annual meeting view plots from barge, above, and by boat, right. Lake is largely infested with hydrilla.





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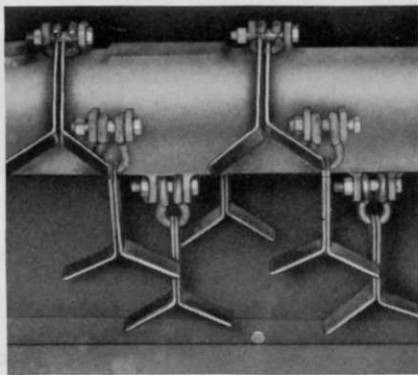


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