

THE FIGHT against Dutch Elm Disease will be won in the laboratory is the motto and goal of Elm Research Institute, a national organization born of the increasing need to prevent the extinction of the stately American elm.

At the present rate of loss of a million elms annually, the species could be extinct in a single generation, leaving whole cities, parks and historic buildings barren of beauty that has been uniquely American since this nation's birth. Elm Research Institute, headquartered at Waldwick, N.J., is doing all it can to prevent this from happening.

Founded not long ago by prominent conservationists under the National Chairmanship of Governor Harold E. Hughes of Iowa, Elm Research Institute correlates the raising of funds and the fostering of research by qualified scientists whose ultimate goal is the development of a safe and practical control for the dreaded Dutch elm disease.

The non-profit Institute is financed solely by membership dues. Because all directors and executive personnel serve without salary, ERI is able to apply all of its resources to the purpose for which it was founded: finding the fastest and most effective way to control Dutch elm disease.

Elm Research Institute estimates that less than \$25,000 was spent last year on Dutch elm disease research in both private and commercial laboratories. Balancing this against an annual loss of a million elms shows how lacking these research efforts are. Time is running out, says ERI. To accomplish what remains to be done in time to save our elms, the full resources of science must be utilized, the Institute cautions.

ERI Grants

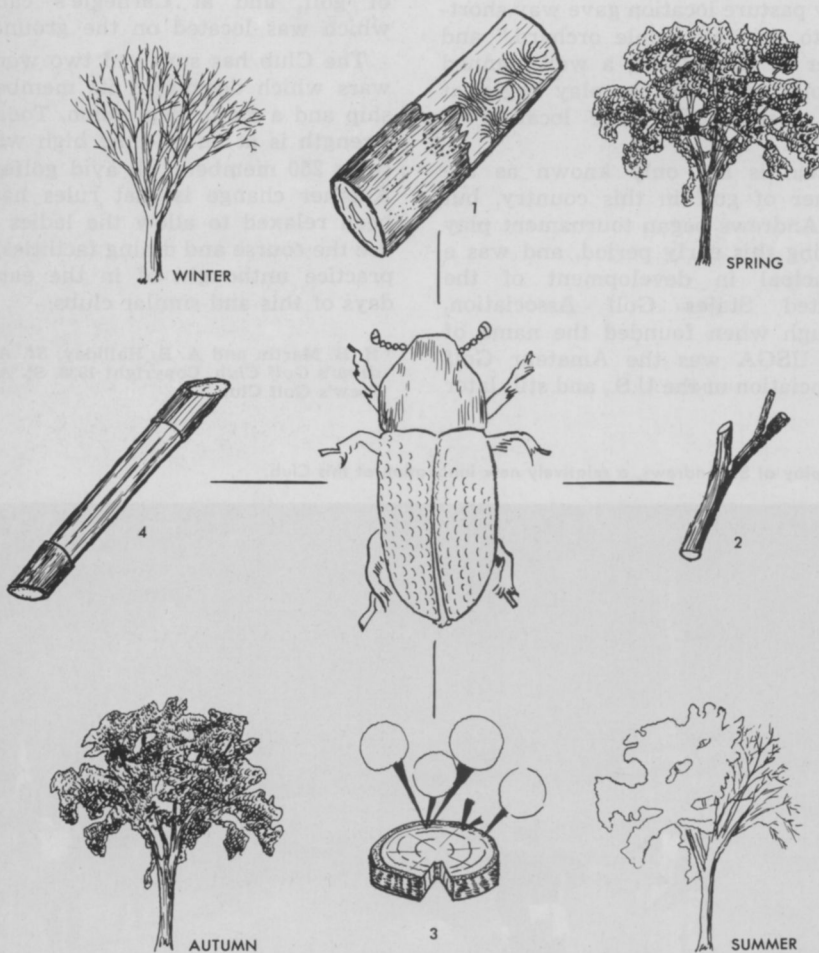
One major way in which the Institute combats DED is to give research grants to leading entomologists and plant pathologists. Research through ERI grants is now in progress in five of the nation's universities.

A three-year grant of \$30,000 to the University of Wisconsin involves research on altering the chemical code through which certain tree species either attract or repel feeding by specific insects. The university is also engaged in other control studies.

With a \$3,000 grant from the Institute, Michigan State University is breeding thousands of wasps destined for a "seek-and-destroy" mission among elm bark beetle larvae. The pupae of these wasps feed exclusively on the elm bark beetle lar-

Conservationists are fighting to stop
a million tree deaths a year

Elm Research Institute



The European elm bark beetle emerges in the spring from brood galleries through "slotholes" (Fig. 1) in the bark of an elm log. Feeding in healthy elms on one and two-year-old twigs (Fig. 2), these beetles introduce the fungus (diagrammatically shown in Fig. 3). As the fungus grows, it forms gums and resins that plug the vascular tissue (Fig. 4) causing wilting and subsequent death of the tree. The chief cause of spread comes from standing diseased elm in which the beetle overwinters.

vae. This natural beetle enemy represents by far the least expensive means of controlling beetle populations and, consequently, Dutch elm disease, the researchers reveal. Other beetle predators are also being sought.

Iowa State University is using its \$5000 ERI grant to study the responses in the tissue and chemistry of elms to infection by the pathogens of Dutch elm disease. It is hoped that this project will yield data on both the chemotherapy required to cope with vital responses and on the characteristics of resistance to disease.

An Institute grant of \$75,000 to be disbursed over a three-year period has been made to Cornell University to study and identify characteristics of DED-resistant strains. The objective here is to develop true American elms with natural resistance to Dutch elm disease.

Finally, a \$15,000 grant to New York University's School of Communications is being used to produce a film to dramatize the urgency for immediate support of the ERI "crash" program to find a control for the elm-killing disease.

What ERI Offers Members

Elm Research Institute offers its members a variety of free services, most of which are not available from any other source. These services range from counseling on every phase of elm care to field testing of new products for elm disease control by accredited experts, who deliver to member organizations objective and confidential reports without cost or publicity.

From its nursery of thousands of 3- to 5-foot elm seedlings, the Institute will furnish stock for replanting in any quantities to individuals, civic groups and municipalities for the cost of packing and mailing.

A Product Development service accepts ideas on disease control from any source, gives expert and confidential evaluation and puts innovators in touch with commercial or scientific agencies to further development.

Elm Research Institute also provides member garden clubs, civic groups, etc. with a talk and color film on elm conservation. It maintains an extensive library on elm disease control, from which members may request any available material.

The organization is also furthering the cause of the American elm by making available special stamps that can be affixed to business or

personal correspondence. These stamps that promote saving our heritage of elms can be purchased in any quantity from a single stamp (10¢) to pads of 196 stamps (\$10), according to the Institute.


Also available to members is a ten-minute speech that can be given to any group on how to save our elms through a nationally mobilized effort. The talk describes how unity of effort is being achieved through ERI and tells of the progress being made toward controlling Dutch elm disease. The New York University

film now being produced will also be available.


Institute members receive a Spring and Fall bulletin summarizing progress made and reporting new methods of elm conservation. They also receive periodic reports on the Institute's activities.

Williams College

An example of dedication to the cause of the American elm is quite evident in ERI charter member Williams College of Williamstown, Mass. Founded in 1793, here is one




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institution that has definitely not given up on the American elm.

"In my mind there is no other tree that compares with the American elm for suitability to a New England college," says Director of Physical Plant Peter P. Welanetz, who is also responsible for landscaping the campus. "It has beauty and grace, and, having a tall, slender trunk, provides shade without closing off views of the campus."

Welanetz believes that the Dutch elm problem can be minimized through a carefully planned, continuous program of care for healthy trees, detection of infested ones and quick removal of elms beyond saving.

Regular spraying, feeding and pruning are basic in caring for the 200 or so American elms on Williams' 450-acre campus, according to Welanetz. Surgery is also used. Weak spots in the wood that might be attacked by elm canker are cut and the cavity filled with concrete. Williams' program also calls for the transplanting of healthy young trees to replace those that must be removed.

Thinking of the future, Welanetz has begun an elm nursery. A hundred seedlings planted in the spring

of 1965 are reportedly thriving.

"We are going to continue our program," Welanetz promises, "and when an effective control of the disease is found, we will be far ahead, in terms of beautiful trees, of those who think the American elm is a lost cause."

ERI Members

Other institutional charter members of Elm Research Institute include Dartmouth College, National Audubon Society, University of Delaware, University of Notre Dame and Wisconsin Arborists Association.

Municipal members include: Bridgeport, Conn.; Elmhurst, Ill.; Kansas City, Mo.; St. Cloud, Minn.; Utica, N. Y.; and Wellesley, Mass.

Charter members of professional status include: Clapper's Tree Service, Crawford, Neb.; Lake Geneva Gardeners' Assn., Lake Geneva, Wis.; Lakeside Tree Experts, Barrie, Ont., Canada; Morrow Tree Service, Sewickley, Pa.; and Walgren's Tree Service, Hamden, Conn.

Elm Research Institute's Board of Directors consists of the following: R. G. Carmichael, Bettendorf, Ia.; Joseph Dietrich, Greenwich, Conn.; George Goodall, Portland, Me.; George Hafstad, Middletown, Wis.;



Such a small beetle making such a small bark pattern (above) as it overwinters can cause such a large tragedy, as the picture at right attests.



Edwin S. Irish, Warren, Mich.; J. A. Kimmel, Toronto, Ont., Canada; Curtis May, Beltsville, Md.; John G. Michalko, Cleveland, O.; Walter P. Morrow, Sewickley, Pa.; Carl J. Schiff, New York, N. Y.; Maunsell Van Rensselaer, Saratoga, Calif.; and Frank Vaydick, Kansas City, Mo.

Membership is open to all individuals, organizations and municipalities feeling a responsibility for safeguarding our national heritage of elms, says the Institute. Annual dues, which are tax deductible, are explained in the chart at right.

What Can You Do to Help?

In addition to joining ERI, you can plant elms to insure that there will be elms to save when DED control is finally achieved, the Institute urges. If you belong to a garden club, Audubon Chapter or any civic organization, you can support elm conservation, replanting and corporate ERI membership.

For membership applications or requests for more information concerning Elm Research Institute, write John P. Hansel, Executive Secretary, 60 West Prospect Street, Waldwick, N. J. 07463.

ELM RESEARCH INSTITUTE MEMBERSHIP APPLICATION

MEMBERSHIPS	DUES		
	Initial	Annual	Annual
	Life**	Sustaining	Regular
Individuals	\$1000.00	\$ 25.00	\$ 5.00
Organizations*			
Local	1000.00	100.00	25.00
State	2500.00	250.00	50.00
National	5000.00	500.00	75.00
Municipalities			
Cities of:			
2,000 to 10,000	500.00	100.00	25.00
10,000 to 50,000	1000.00	200.00	50.00
50,000 to 100,000	1500.00	300.00	75.00
100,000 to 500,000	2500.00	400.00	100.00
500,000 and Over	5000.00	500.00	200.00

* Includes all organizations, such as clubs, commercial companies, institutions, associations, foundations, etc. Categories describe scope of operations whether city-wide, state-wide or national.

** Life members hold membership for the duration of the corporation. Dues are payable upon acceptance of application and are in lieu of any other annual dues.

To: The Secretary, Elm Research Institute, 60 West Prospect St., Waldwick, New Jersey 07463.

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