

The Second Fifty Years

AN ERA ended when the gavel changed hands and Jack R. Rogers became the first president of the International Society of Arboriculture. For 51 years they've been known as the International Shade Tree Conference (ISTC). But with expanded interest developing in all areas of urban forestry, landscaping, horticulture and tree research and development, the present membership feels the new title would better describe the membership and better define the function of their organization.

Rogers, superintendent of street trees, City of Los Angeles, California, received his commission from John Z. Duling, past president, Duling Tree Expert Co., Muncie, Indiana, in a ceremony following the annual banquet.

John C. McGuire, Chief of the U.S. Forest Service, opened the meeting with the keynote address saying there are four major environmental hazards; air and water pollution, soil erosion and destruction of natural flora and fauna. "As our population increases, urban forestry has much to offer as a solution to these problems," he said. "More needs to be done by the ISA to coordinate all governing bodies to cooperate in solving these natural hazards."

"One recent study shows that nature has become so foreign to urban children that they are actually afraid of forests. It's time to bring the forests to the city. Trees help reduce pollution and noise, beautify, harmonize more with nature and screen unsightly but necessary structures," McGuire said.

Americans express strong desires for trees. Arbor Day for example, indicates the extent of popularity of urban forestry. "The Forest Service is presently lacking funds for urban forestry programs. But new bills will be introduced to the President for approval of Congress to renew urban forestry programs," the chief added. "A National program is needed to make cities a more healthy place for people to live."

With so many urban problems using trees as a solution, the proper

selection of trees is necessary to insure that the tree will live and grow. And reporting on solutions to this problems was Alex Shigo, U.S. Forest Service, Durham, New Hampshire. "The number one problem with trees is wounds and wound diseases. All trees have some wounds and it all depends on how a particular tree 'handles' a wound that determines whether it survives," Shigo said. The European wound concept states; first the wound, decay fungi moves in, and then decay. According to Shigo, this concept has not been big enough the past ten years or encompass all aspects of the wound and tree's reaction.

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"This concept has withstood the test for years, but a new concept would have to include the individualism of trees. Some trees are strong reactors and some are rather weak," Shigo said. "The decay portion includes a succession of organisms that move in patterns, not randomly."

"Our entire concept of a tree can no longer be a textbook definition," he said. "Each tree is constructed of compartments bounded by growth rings, rays and chemical barriers. The cambium tissue that has been injured, changes its mode of operation and changes to react to injurious or negative organisms." "The most important concept to remember is that each tree be considered an individual," Shigo added.

Other reported research dealt with tree stress from salts and herbicides. Elton Smith, Ohio State University, Columbus, Ohio, again reinforced that trees react differently to similar stimulus. Smith pointed out that the white pine is one of the most susceptible trees to aerial-borne salt sprays lifted off the streets by passing motorists. "Anti-desiccants applied twice a year keep the inci-

dence of damage to a minimum on most species of trees," Smith pointed out. "There are, however, some salt-resistant species."

Smith also reported on the incidence of damage caused by herbicide use near trees. He described the leaf cupping effect caused by dicamba herbicide and damages resulting from increased use of paraquat. "A ring of activated charcoal placed around the base of the tree can reduce the effect of herbicides," he said.

Alex Shigo, in another one of his many presentations during the educational portion of the ISTC meeting, captivated an audience for a one-and-a-half hour session entitled "New Ideas in Tree Care." "There's a great difference in the ability of trees to heal after wounding," he said. "One indication of whether a wound dressing will work, is the ability of that particular tree to heal."

Shigo described some of his recent work with micro-organisms in an attempt to keep out decay fungus. One method included placing trichoderma, an aggressive decay micro-organism, in a fresh wound and wrapping it with polyethylene

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There were 39 commercial exhibitors and 18 field demonstrators at this year's conference. A first-time exhibitor at the ISTC convention is Strong Mfg. of Remus, Michigan.

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plastic. New testing is also being developed using a crown gall organism to increase the speed of closure of a wound.

"When treating wounds, the most important element is the entire tree and not just the wound," he stated. "Everything possible must be done to increase the vigor of the tree and that includes fertilizing, pruning and watering."

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Another Shigo idea is not such a new idea. It took him and several associates eight years to develop. Called the Shigometer, the instrument operates on the premise that as micro-organisms digest cell walls, certain predictable changes usually occur. Moisture and mineral concentrations change in decaying wood, creating a significant difference in the reaction to a pulsed current, when compared to healthy tissue. A pulsed current emitted by a probe inserted into the tree passes through the tissues. The reflected current is picked up and shows the profile of micro-elements in the tree.

The unit can also be used to monitor the vigor of a tree or detect the strongest portion of the tree. By using the meter on a group of trees, an objective feel can be obtained by recording reaction of obvious vigorous trees and obvious runts as the extremes.

Attendance figures dropped to 714, the lowest since the 1969 meeting. Next year's meeting will be sponsored by the Midwest Chapter and headquartered in the downtown St. Louis area.

New officers for the upcoming year include: Jack R. Rogers, president, Hyland R. Johns, president-elect, Asplundh Tree Expert Co., Yvon Fournier, vice president, Laurentide Nursery, Trois Rivers, Quebec, E. B. Himelick, executive director, Illinois Natural History Survey, Dan Neely, editor, Urbana, Illinois and E. C. Bundy, executive secretary, Urbana, Illinois. □



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