



Featured speakers, Mitchell Wrich (left), and Professor F. L. Steve O'Rourke (right), pause at the arboretum during the shade tree course to talk with C. Gus Hard, extension horticulturist at the University of Minnesota, host for the meet.

Minnesota Shade Tree Course Stresses Planning Before Planting

"Nurserymen, arborists, city planners, and park managers should coordinate their efforts more than they do now if we are to realize the goal of unified horticultural programs," Professor F. L. Steve O'Rourke told an audience of 220 at the University of Minnesota's Fifth Annual Shade Tree Maintenance Short Course, held at the University Arboretum, Sept. 20.

Speaking on various aspects of tree programs, particularly in cities and parks, O'Rourke maintained that dialogue between planners and nurserymen is too often lacking. "Planners often do not give nurserymen sufficient lead time to provide desired trees." He advocated long range planning and contract arrangements that would allow nurserymen time to acquire stocks of clones for street and park planting. O'Rourke, horticulturist from Iowa State University, Ames, and Mitchell Wrich, of Chemagro Corp., Kansas City, Mo., were featured speakers on the shade tree program.

Arborist's Image

"In many places, the image of the arborist and nurseryman has been hurt by unscrupulous or unqualified persons," O'Rourke said. Calling upon arborists to establish standards for superior workmanship and a code of ethics for the profession, he advised

them to base prices on cost studies and make sure they have sufficient profit margins on both material and labor.

Arborists should work not only to improve their public image, but to create more public interest in tree planting programs, the Iowa horticulturist noted. Personal contact, establishment of arboretums in parks, even labeling trees in public areas, are ways to stimulate interest.

Planners and others involved in tree programs should remember, he continued, that houses have changed radically in the past 50 years; trees once suitable are hopelessly out of scale with modern surroundings. Size and shape of a mature tree, need for pruning, disease resistance, and proved adaptability are factors to be considered before making the final selection of species to plant.

Although advocating the planting of clones of the same variety and size along a particular street, O'Rourke counseled against using the same species throughout a neighborhood. "Use of different species on alternate streets helps to insure that disease will not wipe out the tree population of an entire area."

Systemics Long on Protection

Systemic insecticides, applied on the plant or through the soil, are particularly good protection

against sucking insects such as aphids, Mitchell Wrich related in his discussion of new developments in systemic and low-volume, high-concentrate pesticide applications. The greatest value of systemics, Wrich said, is that one application in spring will often provide season-long protection thus freeing arborists for other tasks during the busy summer season.

Low-volume aerial applications of highly concentrated pesticides can be very effective in amounts as small as 2 ozs. per acre, Wrich told the gathering. This type of application has significant potential for control of pests such as tent caterpillars in large acreage plots and forest areas.

Sponsors of this short course are the Department of Horticultural Science and the Agricultural Extension Service of the University of Minnesota, St. Paul.

Pennlawn Superior in North, Beard Tells Mich. Turf Day

Pennlawn fescue has shown superior drought and low temperature tolerance, as well as overall quality under northern conditions, Dr. James Beard, Michigan State University turfgrass researcher, told more than 200 turf specialists at the Northern Michigan Turfgrass Field Day in Traverse City, Sept. 13.

Continuing his evaluation, Beard, who was in charge of the program, noted that Chewings, though outstanding for the first two years of trials, has since deteriorated. Common creeping and Rainier have proved very susceptible to low temperature, the turf expert commented.

Opening with a tour of turf plots, established in Traverse City because its cool climate and sandy soil is representative of turf growing conditions in many northern resort areas, the day-long program also included equipment demonstrations and discussions of turf research.

The detrimental effect of ryegrass on bluegrass-red fescue turfs is much greater in northern Michigan than in sandy loam soils at East Lansing, site of Michigan State University, Beard

pointed out. "Drier soil conditions favor ryegrass establishment, which in turn suppresses development of bluegrass and red fescue seedlings."

"Under these conditions, the resultant composition of the turf is 80% to 95% ryegrass where only 20% to 33% rye was seeded three years ago. During winter, ryegrass will be seriously thinned by winterkill, resulting in a low-quality turf," Beard concluded.

"National Policy" Theme Of February WSA Meet

"The National Policy on Weed Control" will be the theme when weed specialists from all over the country gather at Washington, D.C.'s Statler-Hilton Hotel for the 1967 annual meeting of the Weed Society of America, Feb. 14-17.

Registration will open at noon, Monday, Feb. 13, and general session and sectional meetings are slated to begin Feb. 14. Program for the '67 meet will also include a tour of the U. S. Department of Agriculture research facilities at Beltsville, Md., on Tuesday afternoon. While weed experts are discussing latest contributions to the field of weed science, a ladies program will tour places of interest in Washington.

Dr. William R. Furtick, Farm Crops Department, Oregon State University, Corvallis, is president of the society. President-elect and program chairman for the Washington conference is Richard Behrens, Department of Agronomy and Plant Genetics, University of Minnesota, St. Paul. Other officers are Dayton L. Klingman, Agricultural Research Service, Beltsville, Md., secretary; F. W. Slife, Department of Agronomy, University of Illinois, Urbana, treasurer and business manager; and E. G. Rodgers, Department of Agronomy, University of Florida, Gainesville, editor of "Weeds," the society's publication.

Further program details will be announced in coming issues of *Weeds Trees and Turf*.

Know Your Species

KOCHIA (*Kochia scoparia*)



Kochia, a native of Eurasia, was originally introduced as an ornamental and is still cultivated as such under the name of summer cypress. The young plant is a dark green, turning reddish as it matures, so that it is also known as fireweed, burning bush, and Mexican fireball.

Kochia is found throughout North America having spread very rapidly in recent years. This drought-resistant, bushy plant is most common in the Plains States. Kochia grows under most soil and moisture conditions, thrives in dry, alkaline soil, and is often found in pastures, croplands, rangelands, and fields.

In the fall, the kochia plant separates from its taproot and tumbles over the ground, distributing seeds widely. Seed are a common crop-seed contaminant.

An annual plant, reproducing by seed, kochia grows from a few inches to over 6 feet tall. Smooth, green stems branch considerably (1). Numerous alternate leaves are 1 to 2 inches long and are attached directly to stems. Leaves are narrow, hairy, and pointed.

Flowers (2) are small and green, without petals. Flowers and seeds grow in axils of the upper leaves and in terminal spikes. Seeds (3) are oval, flattened, and grooved on each side. Dull-surfaced seeds are brown with yellow markings. One plant will produce over 14,000 seeds, each about 1/16 inch long.

Mowing greatly reduces the amount of kochia seed formed; however, even continuous close mowing may not prevent seed formation. Mowing should be done early before seeds mature. Young plants (under 10 inches) can be well controlled by applying 1/2 to 3/4 pound of 2,4-D per acre. Older plants require more herbicide. Fully mature, woody plants are more difficult to control. Good results in controlling young kochia may also be obtained by using 2,4,5-T or silvex at a 1-pound-per-acre rate, or 2,4-DB at a rate of 2 pounds per acre.

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